

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

## 1. Assessment Overview

A management assessment was conducted of CHPRC's safety culture from October 1 through November 5, 2012. This assessment was in response to the Integrated Safety Management System (ISMS) annual review and declaration letter<sup>1</sup> required by the Department of Energy Office of Environmental Management (DOE-EM). The specific criteria and expectations for conducting this assessment were provided in the DOE-EM annual declaration letter. The DOE-EM guidance specified that all aspects of a nuclear safety culture should be evaluated using the structure of the Energy Facilities Contractor Owners Group (EFCOG) /DOE ISMS Safety Culture Focus Areas and Attributes using the EFCOG document *Assessing Safety Culture in DOE Facilities, Jan 2009*. The guidance also required that, emphasis be placed on evaluating the ISM supplementation safety culture principles regarding organizational learning for performance improvement (Safety Conscious Work Environment). This assessment followed the guidance and expectations defined in the DOE-EM letter.

The assessment plan provided in Attachment I provides an overview of the approach used to conduct this assessment.

## 2. Results Summary

CHPRC conducted an evaluation of its Nuclear Safety Culture through a review of policies and procedures, assessments performed over the past year with nuclear safety culture elements, and through a series of meetings with individual project representatives, including HAMTC Safety Representatives and the Employee Concerns Program office. Personnel that were involved in the Nuclear Safety Culture evaluation reviewed the EFCOG/DOE guidance on safety culture and the Institute of Nuclear Power Operations *Principles of a Strong Nuclear Safety Culture* documents before conducting the evaluation. In addition, the U.S. Nuclear Regulatory Commission (NRC) document *NRC Regulatory Issue Summary 2005-18 Guidance for Establishing and Maintaining a Safety Conscious Work Environment* was used as a reference.

The evaluation reviewed current performance for FY2011 relative to the nuclear safety culture focus areas and attributes. These focus areas and attributes were drawn from the EFCOG/DOE ISM *Assessing Safety Culture in DOE facilities*, January 23, 2009. The focus areas were Leadership, Employee/Worker Engagement, and Organizational Learning. Additional emphasis was placed on the supplemental safety culture principles regarding organizational learning for performance improvement. These supplemental safety culture principles are primarily related to safety conscious work environment.

The evaluation took advantage of the HSS-VPP onsite assessment that was performed in March 2011 (RL letter 1103223) and a Corporate Assessment performed in July 2011 (PRC MAS-003).

The conclusion from this assessment is that improvement is necessary relative to the formal stop work process and conservative decision making. The other attributes relative to safety culture defined in the EFCOG and NRC guidance documents were found to be adequate at the company level. The opportunities for improvement are addressed in CR-2011-3859.

---

<sup>1</sup> This letter was provided informally to CHPRC through the DOE-RL Assistant Manager for Safety and the Environment.

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

## 3.0 Description of Results

The following sections provide the high level company results of the assessment for the focus areas of Leadership, Employee and Worker Involvement, and Organizational Learning, including Safety Conscious Work Environment. Detailed results by attribute are provided in Table 1.

### 3.1 Safety Culture Focus Area—Leadership

CHPRC has documented expectations for the safety culture principles. These expectations are promulgated across the company in a variety of communication media. Roles and responsibilities are captured in company and project-level documents with clear expectations for execution. CHPRC sets expectations about management engagement and time in the field, both formally and informally through management direction. Management engagement and time in the field is partially measured across CHPRC by the performance of management observations (MOPs) and enhanced supervision activities that require managers to be at worksites and evaluating their activities. CHPRC performed and documented over 2800 MOPs during FY2011.

The supplemental safety culture principles within the Leadership Focus Area are primarily related to open communication and fostering an environment free from retribution. Attributes include, establishing an environment in which employees feel free to raise concerns to their management, their customers, DOE or external regulators without fear of retaliation; and are encouraged to raise such concerns. Behaviors and interactions within this focus area encourage the free flow of information related to nuclear safety issues, differing professional opinion, and employee concerns and their prompt resolutions.

Within the supplemental principles, CHPRC has formal avenues to raise concerns via the web-based all employee access Condition Reporting and Resolution System (CRRS), its management structure, established expectations, as well as the Employee Concern Program and Stop Work process. The programmatic structure of open communication involves establishing communication venues and methods, policies on identification of issues, and procedures on resolving professional differences of opinion with respect to technical and safety issues.

The Employee Concern Program provides a variety of communication paths, including those that start external to CHPRC and go directly to RL (about 15 percent of recent issues have initiated in that path). Employees are aware of the Employee Concerns program and do use the program.

Frequent, routine, and multi-media company communications transmit the CHPRC policy of encouraging the identification of concerns and non-retaliation. Stop Work actions are noted (and frequently praised) on the company-wide Safety Analysis Center (SAC) morning call and in internal company communications. All safety issues including nuclear safety issues receive high levels of attention and are openly discussed and addressed in the SAC call, internal organization meetings, and at the ESRB. Overall, during FY2011, 4208 issues were identified, reported, and processed through the CRRS with no evidence of retaliation for reporting.

Within the Leadership Focus Area two opportunities for improvement were identified relating to the formal Stop Work process and conservative decision making.

**Opportunity for Improvement—Formal Stop Work process**—The Stop Work process is known to workers and supervisors; recent assessments and internal personnel interviews have

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

indicated that some workers hesitate to use the formal process and instead rely on informal ‘pauses’ to address issues. A 2011 CH2M HILL corporate assessment (PRC-MAS-0003) specifically recommended that such an intermediate step be incorporated into the CHPRC process (which is shared across the Hanford Site and promulgated by DOE). Two organizations reported perception problems in this area; some worker reassignments in one organization were seen as related to identification of an industrial safety issue, while one organization cited ongoing communication issues stemming from a long-ago management-workforce issue.

Overall, assessment information and representatives across CHPRC organizations agreed that Stop Work as a process was understood and that no one was afraid to initiate it. In addition, personnel agreed that Stop Work is also used to routinely resolve technical issues other than safety-related issues. Other methods to resolve technical issues [such as Technical Response Teams and the Engineering procedure to resolve dissenting technical opinions (PRC-PRO-EN-14616)] are not well-known or advertise (It was recommended that these processes be communicated through Thinking Target Zeros or weekly tailgate messages (see CR-2011-3888).

**Opportunity for Improvement—Conservative decision making**—While it was agreed, by each organization represented that most activities are conducted appropriately, there was evidence cited that workers and/or supervisors sometimes proceed contrary to established work parameters based on individual perceptions of risk. This weakness was variously displayed as conduct of operations issues, scope expansion issues, proceeding in the face of uncertainty, and other work errors. This opportunity for improvement is related to helping develop employees and workers that are mindful of hazards and associated controls discussed in the next focus area.

## 3.2 Safety Culture Focus Area—Employee/Worker Engagement

CHPRC’s documented expectations and programs encourage personal commitment to safety via company-wide communications, reinforced by management systems such as worker involvement programs such as Presidents Zero Accident Council (PZAC), Employee Zero Accident Council (EZAC), Voluntary Protection Program (VPP), Get Out and Look program (GOAL) (a vehicle safety program), and a workers-observing-worker safety observation program (WOW). Project experience confirms that workers share a strong team commitment to safety. Some improvement in communicating those values to subcontractors and other non-CHPRC personnel that work at CHPRC facilities was noted. Within this focus area there are three attributes associated with team work and mutual respect, participating in work planning and mindful of hazards and controls that were also evaluated.

**Teamwork and mutual respect**—Teamwork and respect within work teams was generally found to be adequate during the evaluation. Respect between functional (program/central) organizations and project organizations needs to be developed and expanded given restructuring of the functional organizations. Tension did exist between some work teams and individuals in August and September, evidently driven by impending workforce reductions. Some non-bargaining unit employees expressed a concern for a lack of respect within their management chains in raising safety issues, however no evidence of retaliation was observed. This issue was identified in the corporate assessment (PRC-MAS-003) and will be the subject of the Integrated Corrective Action Plan sustainability assessment scheduled for January 2012 (SHS&Q-2012-MA-10730).

**Participation in work planning and improvement**— There was general agreement across CHPRC organizations that the enhanced work planning and control process could improve

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

worker participation in work planning; some assessments have already indicated this development. A perception of overly formalistic hazard identification processes using the AJHA tool was observed; some workers see the tool as an administrative burden instead of a planning aid. As discussed earlier in Section 2.3 there are issues associated with effective implementation of the enhanced activity level work planning and control process with actions identified and in place to address these performance issues.

**Mindful of hazards and controls**—CHPRC programs to highlight hazards and associated controls are in place and have recently been enhanced by strengthening the work control process to require that all hazards past a given threshold must be addressed in work instructions. Several organizations indicated that their internal trending and overall statistics indicated that this area was continuing to improve. As discussed earlier in the previous paragraph on conservative decision making, a weakness exists relative to work proceeding contrary to established work parameters based on individual perceptions of risk. This weakness can be characterized by innovative versus conservative decision making (problem solving at the job site). This behavior of the work teams stems from assuming versus verifying that situations were adequately controlled/authorized and recognizing changes in the actual work situation versus how the work was planned. To address this weakness extensive training was provided to over 800 supervisors and managers on how to identify at-risk practices at the job site and take appropriate action to address the at-risk behavior. The training was conducted in parallel with changes to the management observation process to reinforce the application of the principles taught during the training.

### **3.3 Safety Culture Focus Area—Organizational Learning, including Safety Conscious Work Environment.**

The EFCOG guidance in this focus area has some attributes that are closely related to the CAS that include performance monitoring through multiple means and the use of operational experience. This focus area also includes organizational behaviors related to trust and question attitude that have similarities to two previous focus areas and Safety Conscious Work Environment (SWCE) attributes. For the SWCE attributes the basis of the evaluation used the definition from the USNRC “*environment in which employees feel free to raise safety concerns, both to their management and to the DOE<sup>2</sup>, without fear of retaliation.*”

**Performance monitoring through multiple means**—CHPRC maintains extensive performance indicators, including leading indicators for safety-related items. Projects conduct Continuous Improvement meetings (this includes the program area corrective action review board) and other activities regularly to identify, monitor, and plan to improve project-specific performance measures. Tracking and trending of performance issues is provided to both CHPRC senior management and RL through monthly meetings. In these meetings safety performance that includes not only performance measures, but assessment results and feedback from multiple sources is discussed along with corrective actions.

**Use of operational experience**—CHPRC operates internal and external lessons learned programs, including HILLS (site-wide) and CRRS (internal). There are multiple operating experience/lessons learned inputs available to work planners and recent assessments indicate that they are being used. CHPRC has assigned Mentors with extensive experience for several organizations; the mentors have a high utilization rate. The daily SAC conference call

---

<sup>2</sup> The USNRC definition references *to the USNRC*, in this case DOE was substituted.

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

promulgates lessons learned from CHPRC and the DOE complex as a whole. There is a proceduralized management expectation that requires senior management personnel to review new CRs daily, including those that address implementation of lessons learned information that applies to CHPRC activities.

**Trust (in reporting individual errors without management blame)**—CHPRC’s management systems explicitly (in their ISMS Expectations document as well as ISMSD and other program documents) encourage and value the reporting of individual errors. Company mechanisms such as the SAC, HAMTC Safety Representatives, and the CRRS focus on learning from mistakes instead of blaming. The high volume of submitted CRs for FY2011 of 4208 indicates a healthy self-reporting culture. A company-wide corporate assessment (PRC-MAS-0003) found broad improvement in the perception of management’s commitment to safety and openness, with the exception of portions of the PFP workforce. A recent change in senior management at PFP has brought an improvement in that perspective, although improvements are still ongoing.

**Questioning attitude**—CHPRC has a set of human performance tools (PRC-MP-MS-40403 *Human Performance Program*) intended to enhance the use of questioning attitudes; the elements of a questioning attitude have been included in multiple training forums, and the use of a questioning attitude has been reinforced in the Pre-Job Briefing process and in the application of the Stop Work procedure. As discussed earlier in the previous paragraphs on conservative decision making and being mindful of hazards, a weakness exists relative to work proceeding contrary to established work parameters based on individual perceptions of risk, this weakness is related to a questioning attitude.

**Safety Conscious Work Environment (SWCE) attributes**—These supplemental attributes include the policy prohibiting harassment and retaliation for raising nuclear safety concerns and its enforcement; employee awareness that harassment and retaliation for raising safety concerns will not be tolerated; and how employees perceive how well their differing professional opinion and employee concerns are handled.

CHPRC has a documented policy prohibiting harassment and retaliation for raising nuclear safety concerns that is unambiguous and uncompromising. It is supported at the highest levels of senior management; the CHPRC President and Chief Operating Officer have endorsed the policy in writing, and have also spoken about the policy in company meetings and other communications. CHPRC has communicated the essential elements of the policy through written and video communications, through postings, computer-based training, and Pre-Job Briefings. Discussions with personnel participating in the safety culture assessment indicated that it is certain that all CHPRC personnel have been exposed to the tenants of the policy multiple times and are aware that harassment and retaliation for raising nuclear safety concerns will not be tolerated. Survey data available from the all employee training that query this attribute confirm this observation.

CHPRC has strengthened its corrective action management system through improving the procedure, training managers and key staff on fundamental elements such as causal analysis, and establishing performance measurements to track system performance. A recent CH2M HILL corporate assessment (PRC-MAS-0003) found strong improvement in corrective action management and performance in these areas. This indicates that personnel that submit problems into the corrective action system are having their problems addressed. The Employee Concern Program has also, been effective in helping employees identify and resolve perceived problems. Only 14 percent of employee concerns are initiated directly at the DOE level; that indicates that

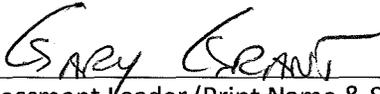
# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

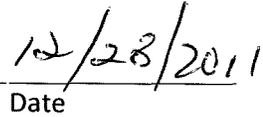
---

the large majority of personnel pursuing concerns felt comfortable using the CHPRC Employee Concerns process to address their issue.

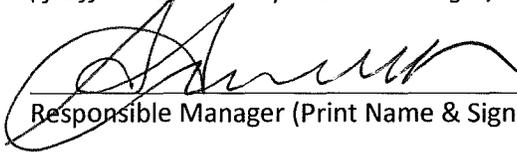
CHPRC relies on traditional management systems to resolve most potential safety issues and professional differences of opinion; there is a documented Engineering Procedure to resolve dissenting technical opinions (PRC-PRO-EN-14616). This procedure has been used infrequently, because most professional differences of opinion involving safety are addressed by the Stop Work process.



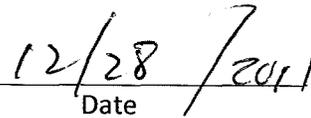
Assessment Leader (Print Name & Sign)  
*(If different from Responsible Manager)*



Date



Responsible Manager (Print Name & Sign)



Date

SMS SAFETY CULTURE FOCUS AREAS AND ASSOCIATED ATTRIBUTES	PERSPECTIVE STRENGTH/OFI/NEUTRAL	DISCUSSION	RELATED INFORMATION
<b>LEADERSHIP</b>			
<ul style="list-style-type: none"> <li>• <b>Clear expectations and accountability</b></li> </ul>	<p><b>STRENGTH (with room to improve)</b></p>	<p>Expectations are expressed for Senior Managers, Managers, and workers via the CHPRC ISMS/EMS Expectations; those expectations are specifically reinforced in the Safety Analysis Center (SAC) call, in training for leaders and senior technical personnel, and in routine work assignment meetings.</p> <p>Roles and responsibilities are captured in company and project-level documents with clear expectations for execution. Some projects have produced videos with Vice President expectations to complement the company-wide videos by CHPRC's President and COO.</p> <p>Project by project, some variability exists in day-to-day communication and accountability has been identified. Some projects identified communications gaps within their projects that are being addressed. In some cases personnel have not been held accountable for performance lapses.</p>	<p>PFPP, WFMP, EPC, D&amp;D, and SGRP self-graded Neutral to Strength. D&amp;D identified specific areas to improve.</p> <p>The HSS-VPP Assessment Identified this area as a positive given the clearly defined safety policy PRC-POL-SH-5053, the use of the ESRB, and the Hazard Review Boards.</p>
<ul style="list-style-type: none"> <li>• <b>Management engagement and time in field</b></li> </ul>	<p><b>STRENGTH (with room to improve)</b></p>	<p>CHPRC sets expectations about management engagement and time in the field, both formally in its Expectations document and informally through management direction.</p> <p>Management engagement and time in the field is partially measured across CHPRC by the performance of management observations (MOPs) and enhanced supervision activities that require managers to be at worksites and evaluating their activities.</p> <p>A company-wide effort to increase these field activities in May 2011 appears to have had the desired impact; management involvement from first-line supervisors to Vice Presidents was noted in the input.</p> <p>Some projects indicated that senior leadership field presence could be improved, but it was mentioned across the company.</p>	<p>All projects noted improvements except SGRP, which noted a declining trend in management field presence, although still significant.</p> <p>The HSS-VPP Assessment Identified this area as an OFI. Specifically, managers needed to make a more concerted effort to be present at locations where seemingly routine work is being performed in potential high hazard areas and use their presence to reinforce their expectations and beliefs of production through safety.</p> <p>Recent Organization Improvement training (course #6000250) given to the CHPRC leadership team (~800 people) re-emphasized the need to directly observe work in the field and provided additional guidance and tools for it to be effective.</p> <p>The July 2001 Corporate Assessment (PRC-MASS-0003) identified improved management field time as evidenced by more MOP and associated identified issues.</p>

SMS SAFETY CULTURE FOCUS AREAS AND ASSOCIATED ATTRIBUTES	PERSPECTIVE STRENGTH/OFI/NEUTRAL	DISCUSSION	RELATED INFORMATION
<ul style="list-style-type: none"> <li><b>Risk-informed, conservative decision making</b></li> </ul>	<p>OFI</p>	<p>A weakness was noted across projects. Most activities are conducted appropriately, but every project cited workers and/or supervisors proceeding contrary to established work parameters based on individual perceptions of risk. This weakness was variously displayed as conduct of operations issues, scope expansion issues, proceeding in the face of uncertainty, and other work errors.</p>	<p>PFPP – radiological events EPC cited several instances where project managers jumped to conclusions about event causes and initiated actions.</p> <p>The HSS-VPP Assessment Identified this area as an OFI. Specifically, workers need to recognize and understand changed conditions that need further analysis to ensure proper controls are implemented to eliminate or mitigate unanticipated hazards.</p> <p>The July 2001 Corporate Assessment (PRC-MASS-0003) identified that improvements in work control with the HPI principles should improve performance in this area.</p>
<ul style="list-style-type: none"> <li><b>Open communication and fostering an environment free from retribution</b></li> </ul> <p><b>Supplemental Attributes</b></p> <ol style="list-style-type: none"> <li><b>Environment exists in which employees feel free to raise concerns to their management, their customers, DOE or External regulators without fear of retaliation; and are encouraged to raise such concerns</b></li> <li><b>Behaviors and interactions encourage the free flow of information related to nuclear safety issues, differing professional opinion, and employee concerns and their prompt resolutions</b></li> </ol>	<p><b>STRENGTH (with room to improve)</b></p>	<p>The programmatic structure of open communication involves establishing communication venues and methods, policies on identification of issues, and procedures on resolving professional differences of opinion with respect to technical and safety issues.</p> <p>CHPRC has formal avenues to raise concerns via its management structure, established expectations, as well as a formal Issues Management, Safety Log Books, Employee Concern Program and Stop Work process.</p> <p>The Employee Concern Program provides a variety of communication paths, including those that start external to CHPRC and go directly to DOE (about 15% of recent issues have initiated in that path).</p> <p>Frequent, routine, and multi-media company communications transmit the CHPRC policy of encouraging the identification of concerns and non-retaliation. Stop Work actions are noted (and frequently praised) on the company-wide SAC call and in internal company communications.</p> <p>Raised <b>nuclear safety issues</b> receive high levels of attention and are openly discussed and addressed in the SAC call, internal project meetings, and elsewhere.</p> <p>All projects agreed that Stop Work as a process was understood and that no one was afraid to initiate it.</p> <p>Stop Work is routinely used to resolve technical issues other than safety-related issues. Other methods to resolve technical issues (such as Technical Response Teams and the Engineering procedure to resolve dissenting technical opinions (PRC-PRO-EN-14616)) are not well-known or advertised.</p>	<p>D&amp;D cited 100K and S&amp;M as strengths, with opportunities to improve in 200 Area D4. Housekeeping issues in 209E were specifically cited.</p> <p>PFPP cited several recent Stop Works and their resolutions as positive communication events.</p> <p>The Stop Work process is known to workers and supervisors; recent assessments and internal project consideration have indicated that some workers hesitate to use the formal process and instead rely on informal ‘pauses’ to address issues.</p> <p>A 2011 CH2M HILL corporate assessment (PRC-MAS-0003) specifically recommended that such an intermediate step be incorporated into the CHPRC process (which is shared across the Hanford Site and promulgated by DOE).</p> <p>Two projects reported perception problems in this area; some worker reassignments in one project were seen as related to identification of an industrial safety issue, while one project cited ongoing communication issues stemming from a long-ago management-workforce issue.</p>

SMS SAFETY CULTURE FOCUS AREAS AND ASSOCIATED ATTRIBUTES	PERSPECTIVE STRENGTH/OFI/NEUTRAL	DISCUSSION	RELATED INFORMATION
<ul style="list-style-type: none"> <li><b>Demonstrated safety leadership</b></li> </ul>	<p><b>STRENGTH (with room to improve)</b></p>	<p>CHPRC formally sets expectations for safety leadership via the ISMS/EMS Expectations document.</p> <p>Senior managers reinforce safety commitment throughout the organization by SAC participation, EZAC and PZAC participation, walkthroughs and MOPs.</p>	<p>PFP cited current PFP leadership WFMP cited Senior Safety Oversight processes and Corrective Action Review Boards D&amp;D cited U-Canyon’s cut conduit event and 284W ceiling event as a negative</p> <p>Recent Organization Improvement training (course #6000250) given to the CHPRC leadership team (~800 people) re-emphasized the need to directly observe work in the field and provided additional guidance and tools for it to be effective in preventing events.</p> <p>The HSS-VPP Assessment Identified this area as an OFI. Specifically, relating to D&amp;D work being performed in 200 areas particularly in the steam plants and U-Plant. In these areas the message of production through safety was being negated by actions that appeared to promote production without regard for safety.</p>
<ul style="list-style-type: none"> <li><b>Staff recruitment, selection, retention, &amp; development</b></li> </ul>	<p><b>NEUTRAL</b></p>	<p>CHPRC’s staff recruitment and selection has been good to date; the large workforce restructuring occurring in September 2011 has challenged management systems and attention.</p> <p>Personnel losses and reassignments due to the workforce restructuring create significant challenges in this area.</p> <p>Several projects identified that there is no formal CHPRC development program; professional development and advanced training is addressed through informal and ad hoc processes except in positions where formal qualification is required.</p>	<p>WFMP and SGRP indicated lack of development as a key issue.</p> <p>EPC indicated difficulties retaining key staff</p> <p>The HSS-VPP Assessment Identified this area as an OFI. Specifically</p> <ul style="list-style-type: none"> <li>Workers need to participate in safety walk downs and assessment to provide opportunities to learn and apply the observations garnered from these experiences to their work location</li> <li>CHPRC should encourage supervisors and managers to pursue STS certification</li> <li>CHPRC needs to review worker training to ensure it effectively prepares the workers to deal with the conditions that were not planned or expected.</li> <li>CHPRC needs to work with AMH/CSC staff to implement mechanisms that link job restrictions identified on the injury report to tasks or duties identified on the EJTA.</li> <li>CHPRC should ensure workers have the computer access needed to access e-mail notifying them of expiring training and complete CBT.</li> </ul>

SMS SAFETY CULTURE FOCUS AREAS AND ASSOCIATED ATTRIBUTES	PERSPECTIVE STRENGTH/OFI/NEUTRAL	DISCUSSION	RELATED INFORMATION
<b>EMPLOYEE/WORKER ENGAGEMENT</b>			
<ul style="list-style-type: none"> <li>Personal commitment to everyone's safety</li> </ul>	<b>STRENGTH</b>	<p>CHPRC's corporate expectations and programs encourage personal commitment to safety via company-wide communications, reinforced by management systems such as worker involvement programs such as PZAC, GOAL, and WOW.</p> <p>Project experience confirms that workers share a strong team commitment to safety.</p> <p>Some improvement in communicating those values to subcontractors and other non-CHPRC personnel could be pursued.</p>	<p>All projects cited as strength. WFMP added concern for subcontractors and non-CHPRC personnel.</p> <p>The HSS-VPP Assessment Identified this area as an OFI. Specifically</p>
<ul style="list-style-type: none"> <li>Teamwork and mutual respect</li> </ul>	<b>NEUTRAL</b>	<p>Teamwork and respect within work teams and generally projects is satisfactory. Respect between functional ('central') organizations and project organizations needs to be developed and expanded given restructuring of the functional organizations.</p> <p>Tensions existed between some work teams and individuals in August and September, evidently driven by impending workforce reductions. Some non-bargaining unit employees expressed a concern for a lack of respect within their management chains in raising safety issues.</p>	<p>PFP expressed concerns about the non-bargaining unit personnel D&amp;D – tank shroud-cutting development at 209E was a good teamwork example</p>
<ul style="list-style-type: none"> <li>Participation in work planning and improvement</li> </ul>	<b>NEUTRAL</b>	<p>There was general agreement that the new Responsible Manager concept in Work Control could improve worker participation in work planning; some assessments have already indicated this development.</p> <p>A perception of overly formalistic hazard identification processes using the Automated Job Hazard Analysis (AJHA) tool is widespread; some workers see the tool as an administrative burden instead of a planning aid.</p> <p>Several projects are recovering from Work Control events or DOE assessments that found problems with work planning processes or implementation.</p>	<p>D&amp;D indicated some areas had limited or no worker involvement in some AJHAs, but the cases were considered isolated. Recent Assessments found increased worker participation in U-Canyon and 100K.</p> <p>PFP considered that more 'runtime' was required from their corrective actions based on DOE observations and previous events.</p> <p>The HSS-VPP Assessment Identified this area as an OFI. Specifically</p> <ul style="list-style-type: none"> <li>Workers need to participate in safety walk downs and assessment to provide opportunities to learn and apply the observations garnered from these experiences to their work location</li> </ul> <p>A recent CWI VPP Assist visit recommended that worker participation in work planning and improvement include an equal balance with the SMEs.</p>

SMS SAFETY CULTURE FOCUS AREAS AND ASSOCIATED ATTRIBUTES	PERSPECTIVE STRENGTH/OFI/NEUTRAL	DISCUSSION	RELATED INFORMATION
<ul style="list-style-type: none"> <li>• <b>Mindful of hazards and controls</b></li> </ul>	<p><b>NEUTRAL (TRENDING TO STRENGTH)</b></p>	<p>CHPRC programs to highlight hazards and associated controls are in place and have recently been enhanced by strengthening the work control to require that <u>all</u> hazards past a given threshold must be addressed in work instructions.</p> <p>Several projects indicated that their internal trending and overall statistics indicated that this area was a strength for them. However, two projects indicated that their corrective actions in this area were still in progress or still maturing so that the overall effect was still neutral.</p>	<p>PFP cited CH2M HILL corporate assessment results in making this neutral D&amp;D cited the 284W ceiling event as a negative. SGRP indicated strong positive statistics in this area.</p> <p>The HSS-VPP Assessment Identified this area as an OFI. Specifically, workers need to recognize and understand changed conditions that need further analysis to ensure proper controls are implemented to eliminate or mitigate unanticipated hazards.</p>
<b>Organizational Learning</b>			
<ul style="list-style-type: none"> <li>• <b>Performance monitoring through multiple means</b></li> </ul>	<p><b>STRENGTH</b></p>	<p>CHPRC maintains extensive performance indicators, including leading indicators for some safety-related items. Projects conduct Continuous Improvement meetings and other activities regularly to identify, monitor, and plan to improve project-specific performance measures.</p> <p>Trend analysis for corrective action items was enhanced as part of the Integrated Corrective Action Program and has shown positive results.</p> <p>Enhancements undertaken for the corrective actions process involved training a wide swath of managers and leaders on corrective action fundamentals and CHPRC's process; management involvement has improved.</p>	<p>SGRP (and other project) Continuous Improvement meetings PFP MOP analysis EPC subproject meetings</p> <p>A 2011 CH2M HILL corporate assessment (PRC-MAS-0003) specifically identified this area as a strength and pointed to the CAS performance dashboard and associated analysis.</p> <p>Recent joint DOE-RL and CHPRC CAS/CAM meeting have confirmed this observation</p>
<ul style="list-style-type: none"> <li>• <b>Use of operational experience</b></li> </ul>	<p><b>STRENGTH (with room to improve)</b></p>	<p>CHPRC operates internal and external lessons learned programs, including HILLS (sitewide) and CRRS (internal). There are multiple operating experience/lessons learned inputs available to work planners and recent assessments indicate that they are being used.</p> <p>CHPRC has assigned Mentors with extensive experience for all projects; the mentors have a high utilization rate.</p> <p>The SAC call promulgates lessons learned from CHPRC and the DOE complex as a whole; there is a management expectation that requires senior management personnel to read all generated Condition Reports.</p>	<p>WFMP input included recommendations on further institutionalizing lessons learned into more structured learning experiences.</p>
<ul style="list-style-type: none"> <li>• <b>Trust</b></li> </ul>	<p><b>STRENGTH (with room to improve)</b></p>	<p>CHPRC's management systems explicitly (in the ISMS/EMS Expectations document as well as Integrated Safety Management System Description and other program documents) encourage and value the reporting of individual errors. Company mechanisms such as the SAC, HAMTC Safety Representatives, and the Condition Reporting and Resolution System focus on learning from mistakes instead of blaming.</p>	<p>PRC-MAS-0003 found positive feedback in this area (except for pockets in PFP)</p> <p>SGRP reported continued fallout from historical communications issues as negatively impacting this area.</p>

SMS SAFETY CULTURE FOCUS AREAS AND ASSOCIATED ATTRIBUTES	PERSPECTIVE STRENGTH/OFI/NEUTRAL	DISCUSSION	RELATED INFORMATION
		<p>A company-wide corporate assessment (PRC-MAS-0003) found broad improvement in the perception of management’s commitment to safety and openness, with the exception of portions of the PFP workforce. A recent change in senior management at PFP has brought an improvement in that perspective, although improvements are still ongoing.</p> <p>There continue to be organizational and institutional barriers to full and open communication with respect to reporting individual errors, but the programs and processes to achieve trust are in place.</p>	
<ul style="list-style-type: none"> <li>• <b>Questioning attitude</b></li> </ul>	<p><b>OFI</b></p>	<p>CHPRC has a set of Human Performance tools intended to enhance the use of questioning attitudes; the elements of a questioning attitude have been included in multiple training forums, and the use of a questioning attitude has been reinforced in the Pre-Job Briefing process and in the application of the Stop Work procedure.</p> <p>Performance in this area requires continued improvement based on events of the past year. Some positive developments include PFP’s using worker feedback as an impetus to review work packages and remove nonessential information. The use of the Stop Work process in D&amp;D was cited as a positive in this area.</p>	<p>Issues involving lack of a questioning attitude: PFP radiological controls issues D&amp;D 284W ceiling event</p> <p>Recent cause analysis has shown that less than expected questioning attitude is probably linked to risk perception.</p>
<ul style="list-style-type: none"> <li>• <b>Reporting errors and problems</b></li> </ul> <p><b>Supplemental Attributes</b></p> <ol style="list-style-type: none"> <li>1. Evaluate CHPRC policy prohibiting harassment and retaliation for raising nuclear safety concerns and is it enforced?</li> <li>2. Evaluate whether all persons are aware that harassment and retaliation for raising safety concerns will not be tolerated.</li> </ol>	<p><b>STRENGTH (with room to improve)</b></p>	<p>CHPRC’s policy prohibiting harassment and retaliation for raising nuclear safety concerns is unambiguous and uncompromising. It is supported at the highest levels of senior management; the CHPRC President and Chief Operating Officer have endorsed the policy in writing, in company meetings and communications.</p> <p>CHPRC has communicated the essential elements of the policy through written and video communications, through postings, computer-based training, and Pre-Job Briefings. It is certain that all CHPRC personnel have been exposed to the tents of the policy multiple times and thus should be aware that harassment and retaliation for raising nuclear safety concerns will not be tolerated.</p>	<p>D&amp;D raised some issues with perceived incorrect treatment after raising concerns; as presented the issues seemed to be of communication. PFP and WFMP cited this as an example of strong communication through the organization.</p> <p>For problem reporting CHPRC’ Issues Management process (PRC-PRO-QA-052) defines a high volume low threshold system that is Web based open access system. Current data shows that:</p> <ul style="list-style-type: none"> <li>• 4000 CRs/year 350 CRs/month</li> <li>• Over 30% of the workforce from VPs to represented worked have submitted CRs</li> </ul> <p>Confirmed through correlation with CGET Safety Survey results</p>

SMS SAFETY CULTURE FOCUS AREAS AND ASSOCIATED ATTRIBUTES	PERSPECTIVE STRENGTH/OFI/NEUTRAL	DISCUSSION	RELATED INFORMATION
<ul style="list-style-type: none"> <li>• <b>Effective resolution of reported problems</b></li> </ul> <p><b>Supplemental Attribute</b></p> <ol style="list-style-type: none"> <li>3. <b>Evaluate how employees perceive how well their differing professional opinion and employee concerns are handled.</b></li> </ol>		<p>CHPRC has strengthened its corrective action management system through improving the procedure, training managers and key staff on fundamental elements, causal analysis, and establishing performance measurements to track system performance.</p> <p>A recent CH2M HILL corporate assessment (PRC-MAS-0003) found strong improvement in corrective action management and performance in these areas.</p> <p>The Employee Concern Program is effective in helping employees identify and resolve perceived problems. 14% of employee concerns are initiated directly at the DOE level; that indicates that the large majority of personnel pursuing concerns felt comfortable using the CHPRC Employee Concerns process to address their issue.</p> <p>CHPRC relies on traditional management systems to resolve most potential safety issues and professional differences of opinion; there is an Engineering procedure to resolve dissenting technical opinions PRC-PRO-EN-14616 that is used infrequently. Most professional differences of opinion involving safety are addressed by the Stop Work process.</p>	<p>D&amp;D reported that issues are effectively resolved at 100K, but some Plateau D&amp;D issues have arisen where safety professionals did not feel their concerns had been fully addressed.</p> <p>SGRP reported that the management of legacy/abandoned materials had been questioned by individuals (including a DOE facility representative) but not fully resolved.</p> <p>Areas of improvement include:                      -evaluating the extent of condition for issues in broader contexts                      -higher quality corrective actions rather than more corrective actions.</p>

# CHPRC Safety Culture Management Assessment

## SHS&Q-2012-MA-11018

---

### Attachment I

#### Management Assessment Plan for Safety Culture

##### 1.0 Purpose & Scope

The purpose of this management assessment is to evaluate the safety culture at CHPRC in support of the annual (FY2011) Integrated Safety Management System (ISMS) declaration provided to the Department of Energy.

The scope of the assessment includes the CHPRC and associated projects. The lines of inquiry were developed based on direction provided in the annual ISMS declaration letter from the Department of Energy. The DOE direction required that each contractor evaluate its safety culture using the approach defined by the Energy Facility Contractors Group (EFCOG). The EFCOG guidance identified the following three safety culture focus areas and associated attributes:

- Leadership
  - Demonstrated safety leadership
  - Risk-informed, conservative decision making
  - Management engagement and time in field
  - Staff recruitment, selection, retention, and development
  - Open communication and fostering an environment free from retribution
  - Clear expectations and accountability
- Employee/Worker Engagement
  - Personal commitment to everyone's safety
  - Teamwork and mutual respect
  - Participation in work planning and improvement
  - Mindful of hazards and controls
- Organizational Learning
  - Credibility, trust and reporting errors and problems
  - Effective resolution of reported problems
  - Performance monitoring through multiple means
  - Use of operational experience
  - Questioning attitude

In addition, the DOE direction required that these focus areas and attributes be supplemented by the Safety Conscious Work Environment attributes defined in United States Nuclear Regulatory Commission (USNRC), USNRC Inspection Manual 310 *NRC Safety Culture Policy*. These supplemental attributes were incorporated into the EFCOG focus areas and attributes describe above.

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

The complete set of the lines of inquiry are provided in Section 4 of this plan.

The time frame for this evaluation was limited to FY2011 data and associated information to be consistent with the expectations for the annual (FY2011) ISMS declaration. The assessment period of performance was October 1 through November 5, 2011 for data collection and analysis. The assessment will be issued before December 31, 2011.

## 2. Assessment Personnel and Responsibilities

CHPRC personnel from the projects and central organizations including the lead HAMTC Safety Representative and Employee Concerns comprise the team. The team was lead by Director, Performance Assurance and shadowed by a member of DOE-RL ASME staff.

The Team included:

G. Grant	Director, Performance Assurance, Team Lead
K. Wooley	Deputy Vice President, SHS&Q
M. Hughey	Director, Safety Programs
R. Boykin	Employee Concerns
D. Kimball	Director, ESH&Q, EPC Project
M. Kembel	Director, W&FM Project
B. Smoot	Mentor, PFP Project
B. Barmettlor	Director, Performance Assurance S&GW Project
J. Meeker	Manager, Performance Assurance D&D Project
D. Boone	Director, SHS&Q, D&D Project
S. Swenning	Manager, Contractor Assurance

J. Molnaa, the Lead HAMTC Safety Representative observed the assessment and provided a represented work force perspective.

E. Parsons, from DOE-RL, is to shadow parts of the assessment to provide some perspectives relative to the approaches used by other Hanford site contractors.

## 3. Assessment Methodology

The methodology used to conduct the assessment was based in part from the guidance provided by EFCOG for assessing safety culture. This methodology included data reviews of performance metrics from the contractor assurance system, interviews with personnel and reviews of the following completed assessment reports:

- HSS-VPP onsite assessment that was performed in March 2011 (DOE-RL Correspondence 1103223)
- Corporate Assessment performed in July 2011 (PRC- MAS-003).

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

No observations of work activities were conducted during this assessment.

The process used to conduct the assessment was first to brief the assessment team on the lines of inquiry and methodologies provided by the EFCOG documentation. In addition, reference material associated with safety culture was reviewed from the Institute of Nuclear Power Operators (INPO) and the Nuclear Energy Institute (NEI). The next step in the process was for each team member to query their respective organization or functional area relative to the safety culture attributes to identify strengths and opportunities for improvement. Once this was completed the entire group met in a roundtable discussion of their specific project results to formulate conclusions relative to the overall company safety culture. Information that was developed or events that occurred before FY-2011 is considered out of scope of the assessment

The assessment team will review the following types of documentation that was developed during FY-2011. Specific documentation to be reviewed includes, but not limited to;

- Employee concerns policies and HR related policies and procedures relative to harassment and retaliation.
- Procedures and policies related to stop work authority
- Assessment procedures, schedules and completed assessments, management observations and associated training materials
- Issues management procedures, condition reports, checklists and associated training materials
- Organizational improvement training materials
- Records from the monthly Safety Trend Analysis and ESRB meetings
- Records and other documentation from project/program Corrective Action Review Boards
- Communication plans and associated products (Target Zeros, etc)
- Performance measures/indicators

The Condition Report (CR) will be used to document the issues revealed during the assessment process. Clear communication is the objective, and the specific number of CRs used to detail issues will necessarily be up to the discretion of the team member and team leader. Condition reports are tracked in the CRRS.

## 4. Performance Objectives/Lines of Inquiry

The objective of this assessment is to provide a baseline relative to the overall safety culture of the CHPRC. The lines of inquiry used in the assessment were developed by the EFCOG and documented in the EFCOG practice *Assessing Safety Culture in DOE Facilities*. The lines of inquiry that follow were used to conduct this assessment are taken unedited from the EFCOG guidance. These lines of inquiry were used as intended by the EFCOG guidance as behavior expectations and attributes that are observed relative to overall organizational behaviors. As a result, a line-by-line compliance matrix was not developed.

### Safety Culture Focus Areas and Associated Attributes

Experience from the commercial nuclear industry, including the Institute for Nuclear Power Operations, has been reviewed for relevant lessons. An analysis of this experience and research over the past decade has identified supplemental safety culture elements that may be helpful to focus attention and action in the right areas to create the desired ISM environments. These elements also promote a shift from mere compliance toward excellence. They emphasize continuous improvement and long-term performance, and they are entirely consistent with the original intents of ISM.

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

DOE and the Energy Facility Contractors Group (EFCOG) have collaborated to develop guidance for achieving a strong safety culture. They identified the following three safety culture focus areas and several attributes associated with each one, that they felt offered the greatest potential for achieving excellence in both safety and production performance.

- Leadership
  - Demonstrated safety leadership
  - Risk-informed, conservative decision making
  - Management engagement and time in field
  - Staff recruitment, selection, retention, and development
  - Open communication and fostering an environment free from retribution
  - Clear expectations and accountability
  
- Employee/Worker Engagement
  - Personal commitment to everyone's safety
  - Teamwork and mutual respect
  - Participation in work planning and improvement
  - Mindful of hazards and controls
  
- Organizational Learning
  - Credibility, trust and reporting errors and problems
  - Effective resolution of reported problems
  - Performance monitoring through multiple means
  - Use of operational experience
  - Questioning attitude

## LEADERSHIP

### **Demonstrated safety leadership**

- Line managers (from the Secretary to the DOE Cognizant Secretarial Officer to the DOE Field Office Manager, and from the contractor senior manager, to the front-line employee) understand and accept their safety responsibilities as integral to mission accomplishment.
- Line managers enhance work activities, procedures and process with safety practices and policies.
- Leaders acknowledge and address external influences that may impose changes that could result in safety concerns.
- Line managers clearly understand their work activities and performance objectives, and how to safely conduct their work activities to accomplish their performance objectives.
- Line managers demonstrate their commitment to safety through their actions and behaviors, and support the organization in successfully implementing safety culture attributes, by conducting walk-throughs, personal visits, and verifying that their expectations are met.
- The organizational mission and operational goals clearly identify that production and safety goals are intertwined, demonstrating commitments consistent with highly reliable organizations.

### **Risk-informed, conservative decision making**

- Line managers support and reinforce conservative decisions based on available information and risks. Managers and employees are systematic and rigorous in making informed decisions that support safe, reliable operations. Employees are expected, authorized and supported by managers to take conservative actions when faced with unexpected or uncertain conditions.

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

- Managers and employees are intolerant of conditions or behaviors that have the potential to reduce operating or design margins. Anomalies are thoroughly investigated, promptly mitigated, and periodically analyzed. The bias is set on proving that work activities are safe before proceeding, rather than proving them unsafe before halting. Personnel do not proceed, and do not allow others to proceed, when safety is uncertain and management is supportive of these decisions.

## **Management engagement and time in field**

- Maintaining operational awareness is a priority. Line managers are in close contact with the front-line employees. Line managers listen and act on real-time operational information. Line managers identify critical performance elements and monitor them closely.
- Line managers spend time on the floor and in employee work areas. Line managers practice visible leadership by placing “eyes on the work,” asking questions, coaching, mentoring, and reinforcing standards and positive behaviors. Deviations from expectations are corrected promptly and, when appropriate, collectively analyzed to understand why the behaviors occurred.
- Managers set an example for safety through their personal commitment to continuous learning and by direct involvement in high-quality training that consistently reinforces expected employee behaviors.

## **Staff recruitment, selection, retention, and development**

- People and their professional capabilities, experiences, and values are regarded as the organization’s most valuable assets. Organizational leaders place a high personal priority and time commitment on recruiting, selecting, and retaining an excellent technical staff.
- The organization maintains a highly knowledgeable workforce to support a broad spectrum of operational and technical decisions. Technical and safety expertise is embedded in the organization. Outside expertise is employed when necessary.
- The organization is able to build and sustain a flexible, resilient, robust technical staff and staffing capacity. Staffing is sufficient to ensure adequate resources exist to ensure redundancy in coverage as well as cope with and respond to unexpected changes in a timely manner.
- The organization values and practices continuous learning. Professional and technical growth is formally supported and tracked to build organizational capability. Employees are required to improve knowledge, skills, and abilities by participating in recurrent and relevant training and strongly encouraged to pursue educational opportunities.
- Line managers encourage and make training available to broaden individual skills and improve organizational performance. Training should include the ability to appreciate the potential for unexpected conditions; to recognize and respond to a variety of problems and anomalies; to understand complex technologies and capabilities to respond to complex events; to develop flexibility at applying existing knowledge and skills in new situations; to improve communications; and to learn from significant industry and DOE events.

## **Open communication and fostering an environment free from retribution**

- A high level of trust is established in the organization.
- Reporting individual errors is encouraged and valued. Individuals feel safe from reprisal when reporting errors and incidents.
- Individuals at all levels of the organization promptly report errors and incidents and offer suggestions for improvements.
- A variety of methods are available for personnel to raise safety issues and line managers promptly and effectively respond to personnel who raise safety issues.

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

- Leaders proactively detect situations that could result in retaliation and take effective action to prevent a chilling effect.
- The organization addresses disciplinary actions in a consistent manner; disciplinary actions are reviewed to ensure fair and consistent treatment of employees at all levels of the organization.

## **Clear expectations and accountability**

- Line managers provide ongoing performance reviews of assigned roles and responsibilities reinforcing expectations and ensuring key safety responsibilities and expectations are being met.
- Personnel at all organizational levels are held accountable for standards and expectations. Accountability is demonstrated both by recognizing excellent performance as well as identifying less-than-adequate performance. Accountability considers intent and organizational factors that may contribute to undesirable outcomes.
- Willful violations of requirements and performance norms are rare. Individuals and organizations are held accountable in the context of a just culture. Unintended failures to follow requirements are promptly reported, and personnel and organizations are acknowledged for self-identification and reporting errors.

## **EMPLOYEE/WORKER ENGAGEMENT**

### **Personal commitment to everyone's safety**

- Responsibility and authority for safety are well defined and clearly understood as an integral part of performing work.
- The line of authority and responsibility for safety is defined from the Secretary and contractor senior manager to the individual contributor. Roles and responsibilities, authorities and accountabilities are clearly defined in writing and are understood by each individual.
- Individuals understand and demonstrate responsibility for safety. Safety and its ownership are apparent in everyone's actions and deeds.
- Individuals outside of the organization (including subcontractors, temporary employees, visiting researchers, vendor representatives, etc.) understand their safety responsibilities.
- The organization knows the expertise of its personnel. Line managers defer to qualified individuals with relevant expertise during operational upset conditions. Qualified and capable people closest to operational upsets are empowered to make important decisions, and are held accountable justly.

### **Teamwork and mutual respect**

- Open communications and teamwork are the norm.
- Individuals at all levels of the organization listen to each other and effectively engage in crucial conversations to ensure meaning, intent and viewpoints are understood; and that differing points of view are acknowledged.
- Discussion on issues focus on problem solving rather than on individuals.
- Good news and bad news are both valued and shared.

### **Participation in work planning and improvement**

- Individuals are actively involved in identification, planning, and improvement of work and work practices.
- Individuals follow approved work practices and procedures.
- Individuals at all levels can stop unsafe work or work during unexpected conditions.

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

- Design, analysis and continuous improvement of work practices and processes are valued as core organizational competencies; expertise in these competencies is evaluated and rewarded.

## **Mindful of hazards and controls**

- Organizational safety responsibilities are sufficiently comprehensive to address the work activities and hazards involved.
- Work hazards are identified and controlled to prevent or mitigate accidents, with particular attention to high consequence events with unacceptable consequences.
- Individuals understand and proactively identify hazards and controls before beginning work activities.
- Individuals are mindful of the potential impact of equipment and process failures, demonstrate constructive skepticism and are sensitive to the potential of faulty assumptions and errors. They appreciate that mindfulness requires effort.

## **ORGANIZATIONAL LEARNING**

### **Credibility, trust and reporting errors and problems**

- Credibility and trust are present and continuously nurtured so that a high level of trust is established in the organization.
- Organizations, managers and line supervisors provide accurate, relevant and timely information to employees. Line managers are skilled in responding to employee questions in an open, honest manner.
- Reporting individual errors is encouraged and valued. Individuals are recognized and rewarded for self-identification of errors.
- Line managers encourage and appreciate safety issue and error reporting.
- Managers and line supervisors demonstrate integrity and adhere to ethical values and practices to foster trust.
- Managers and line supervisors demonstrate consistency in approach and a commitment to the vision, mission, values and success of the organization as well as the individuals (people).
- Mistakes are used for opportunities to learn rather than blame.
- Individuals are recognized and rewarded for demonstrating behaviors consistent with the safety culture principles.

### **Effective resolution of reported problems**

- Vigorous corrective and improvement action programs are established and effectively implemented, providing both transparency and traceability of all corrective actions. Corrective action programs effectively prioritize issues, enabling rapid response to imminent problems while closing minor issues in a timely manner to prevent them from escalating into major issues.
- Results from performance assurance activities are effectively integrated into the performance improvement processes, such that they receive adequate and timely attention. Linkages with other performance monitoring inputs are examined, high-quality causal analyses are conducted, as needed, and corrective actions are tracked to closure with effectiveness verified to prevent future occurrences.
- Processes identify, examine and communicate latent organizational weaknesses that can aggravate relatively minor events if not corrected. Organizational trends are examined and communicated.

# CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

- Organizational systems and processes are designed to provide layers of defenses, recognizing that people are fallible. Lessons learned are shared frequently; prevention and mitigation measures are used to preclude errors from occurring or propagating. Error-likely situations are sought out and corrected, and recurrent errors are carefully examined as indicators of latent organizational weaknesses.
- Incident reviews are conducted promptly after an incident to ensure data quality and to identify improvement opportunities. Causal analysis expertise is applied effectively to examine events and improve safe work performance. High-quality causal analysis using multi-discipline analytical perspectives is the norm. Causal analysis is performed on a graded approach for major and minor incidents, and near-misses, to identify causes and follow-up actions. Even small failures are viewed as windows into the system that can spur learning.
- Performance improvement processes require direct worker participation. Individuals are encouraged, recognized and rewarded for offering innovative ideas to improve performance and to solve problems.

## **Performance monitoring through multiple means**

- Line managers maintain a strong focus on the safe conduct of work activities. Line managers maintain awareness of key performance indicators related to safe work accomplishment, watch carefully for adverse trends or indications, and take prompt action to understand adverse trends and anomalies. Management employs processes and special expertise to be vigilant for organizational drift.
- Performance assurance consists of robust, frequent, and independent oversight conducted at all levels of the organization. Performance assurance includes independent evaluation of performance indicators and trend analysis.
- Line managers throughout the organization set an example for safety through their direct involvement in oversight activities and associated performance improvement.
- The organization actively and systematically monitors performance through multiple means, including leader walkarounds, issue reporting, performance indicators, trend analysis, benchmarking, industry experience reviews, self-assessments, peer reviews, and performance assessments.
- The organization demonstrates continuous improvement by integrating the information obtained from performance monitoring to improve systems, structures, processes, and procedures.
- Line managers are actively involved in all phases of performance monitoring, problem analysis, solution planning, and solution implementation to resolve safety issues.
- The organization maintains an awareness of its safety culture maturity. It actively and formally monitors and assesses its safety culture on a periodic basis.

## **Use of operational experience**

- Operating experience is highly valued and the capacity to learn from experience is well developed. The organization regularly examines and learns from operating experiences, both internal and in related industries.
- Organization members convene to swiftly uncover lessons and learn from mistakes and successes.
- The organization embraces feedback from peer reviews, independent oversight, and other external sources.
- The organization documents and shares operating experiences (lessons learned and best practices) within the organization and with industry.

## **Questioning attitude**

## CHPRC Safety Culture Management Assessment

SHS&Q-2012-MA-11018

---

- Line managers encourage a vigorous questioning attitude toward safety, and foster constructive dialogues and discussions on safety matters.
- Individuals cultivate a constructive, questioning attitude and healthy skepticism when it comes to safety. Individuals question deviations, and avoid complacency or arrogance based on past successes. Team members support one another through both awareness of each other's actions and constructive feedback when necessary.
- Individuals pay keen attention to current operations and focus on identifying situations where conditions and/or actions are diverging from what was assumed, expected, or planned. Individuals and leaders act to resolve these deviations early before issues escalate and consequences become large.