Department of Energy
Washington, DC 20585

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DNF SAFETY BOARD

The Honorable Peter S. Winokur
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW, Suite 700
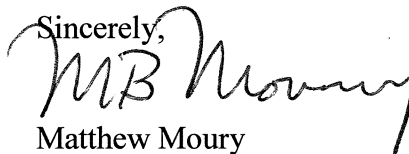Washington, DC 20004

Dear Mr. Chairman:

This letter is to inform you that the Department of Energy (DOE) has completed Action 1-9 of the Department's Implementation Plan for Defense Nuclear Facilities Safety Board (Board) Recommendation 2011-1, *Safety Culture at the Waste Treatment and Immobilization Plant.*

The deliverable for Action 1-9 is a letter to the Board communicating completion and transmitting the report of validation and effectiveness reviews of Office of River Protection (ORP) and contractor safety culture improvement actions.

The review concluded that ORP made a substantial start toward improving its safety culture – much remains to be done to demonstrate effective change. ORP will use the results of this review and other feedback sources such as the recent Safety Conscious Work Environment (SCWE) self-assessment, the Federal Employee Viewpoint Survey, and the Hanford Site "Speak-Up" Survey to update the ORP Safety Culture Improvement Plan in July 2013. DOE will provide the updated ORP Safety Culture Improvement Plan to the Board when it is approved.

Bechtel National, Inc. (BNI) completed 27 of the 50 nuclear safety and quality culture improvement actions in the BNI Safety Culture Improvement Plan by the time of this review. ORP completed 19 surveillances, validating completion of BNI actions and identifying seven opportunities for improvement. ORP plans to perform an effectiveness evaluation of BNI safety culture improvements as part of the next Safety Culture and SCWE self-assessment – anticipated in late 2014 or early 2015.

If you have any questions, please feel free to contact me or Mr. James Hutton, Associate Deputy Assistant Secretary, for Safety, Security, and Quality Programs, at (202) 586-5151.

Sincerely,

Matthew Moury
Deputy Assistant Secretary for
   Safety, Security, and Quality Assurance
Environmental Management

Enclosure

United States Government

Department of Energy

Office of River Protection

memorandum

MAY 2 9 2013

DATE:

REPLY TO
ATTN OF: TF:SHP   13-TF-0040

SUBJECT: THE U.S. DEPARTMENT OF ENERGY (DOE), OFFICE OF RIVER PROTECTION
(ORP) VALIDATION AND EFFECTIVENESS REVIEW OF ORP AND BECHTEL
NATIONAL, INC. (BNI) SAFETY CULTURE IMPROVEMENT ACTIONS, ACTION
1-9, FOR THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD (DNFSB)
RECOMMENDATION 2011-1

TO: David Huizenga, Senior Advisor
for Environmental Management, EM-1

This memorandum delivers the *Validation and Effectiveness Review of Office of River
Protection and Bechtel National, Inc. Safety Culture Improvement Actions*, A-13-AMTF-
INTERNAL-003, dated May 23, 2013. The attached report is provided for your review and
transmittal to the DNFSB as required by Action 1-9 of the DOE Implementation Plan for
DNFSB Recommendation 2011-1, Safety Culture at the Waste Treatment and
Immobilization Plant (WTP) (DOE IP 2011-1).

Action 1-9 required that ORP "conduct a validation and effectiveness review of ORP and
BNI actions, including the WTP safety culture management process, and other actions
contained in the BNI Nuclear Safety Quality Culture (NSQC) plan," with transmittal of the
report to the DNFSB by the end of May 2013.

ORP made a substantial start toward improving its safety culture, but much remains to be
done to demonstrate effective change. Of the nine near-term improvement actions scheduled
for completion in the first year, two were judged to be fully implemented and seven were
partially implemented. Four of the nine actions were judged to be partially effective, and the
other five were judged to be of indeterminate effectiveness at the time of evaluation due to
the recent completion of some of the actions, and because of the difficulty in measuring
safety culture change over a one-year time period.

BNI completed 27 of the 50 nuclear safety and quality culture improvement actions by the
time of this review. All BNI actions are scheduled to be complete by the end of calendar
year 2013. ORP completed 19 surveillances, validating completion of BNI actions and
identifying seven opportunities for improvement. An effectiveness evaluation of BNI
improvements should be done as part of the next Safety Culture and Safety Conscious Work
Environment (SCWE) self-assessment with ORP involvement – anticipated in late 2014 or
early 2015.

ORP will use the results of this review and other feedback sources such as the recent SCWE self-assessment, the Federal Employee Viewpoint Survey, and the Hanford Site "Speak-Up" Survey to update the Safety Culture Improvement Plan by July 2013.

If you have any questions, please contact Stephen H. Pfaff, ORP Safety Culture Team Lead, at (509) 376-2188.

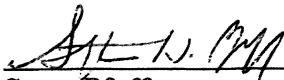Kevin W. Smith
Manager

Attachment

cc w attach:
J. Hutton, EM-40
M. Moury, EM-40

ATTACHMENT

13-TF-0040

VALIDATION AND EFFECTIVENESS REVIEW OF OFFICE OF RIVER
PROTECTION AND BECHTEL NATIONAL, INC. SAFETY CULTURE
IMPROVEMENT ACTIONS

Steve Pfaff

U. S. Department of Energy
Office of River Protection
May 2013

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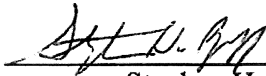**U.S Department of Energy, Office of River Protection**

Validation and Effectiveness Review
of Office of River Protection
and Bechtel National, Inc.
Safety Culture Improvement Actions

May 2013

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Office of River Protection
May 2013

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A-13-AMTF-INTERNAL-003

Report Approval

Stephen H. Pfaff 5/23/2013

Stephen H. Pfaff
Safety Culture Team Lead

Participants:

Original Team Members
DaBrisha Smith
Dan Knight
Billie Mauss
Tom Nirider
Jim Lynch
Pamela Bailey
Garth Reed
Brad Eccleston
Pam Logan
Brian Harkins
Joe Renevitz

New Team Members
Robyn Burt
Cheryl Arm
Don Alexander
Isabelle Wheeler
Bob Squires
Brandon Gadish
Cecil Swarens
Lori Gamache

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Executive Summary

The U.S. Department of Energy (DOE), Office of River Protection (ORP), Safety Culture Integrated Project Team (IPT) performed a validation and effectiveness review following completion of the nine near-term safety culture improvement actions contained in the ORP Safety Culture Improvement Plan. This review was conducted from May 13 – 17, 2013, and was required by the DOE Implementation Plan for Defense Nuclear Facility Safety Board (DNFSB) Recommendation 2011-1, *Safety Culture at the Waste Treatment and Immobilization Plant (WTP)*. This review also contains the status of Bechtel National, Inc. actions to improve the nuclear safety and quality culture at the WTP.

The review showed that ORP made a substantial start toward improving its organizational and safety culture, but much remains to be done to demonstrate effective change. The review assigned implementation and effectiveness ratings ranging from fully implemented to partially implemented, and from partially effective to indeterminate effectiveness. None of the improvement actions undertaken in this first year were considered to be fully effective.

Of the nine actions, two were judged to be fully implemented and seven were partially implemented. Also, of the nine actions, four were considered to be partially effective, and five were considered to be of indeterminate effectiveness. This indeterminate effectiveness status of some of the actions is due in part to recent completion of the actions, the slowness of culture change in general, and the difficulty in measuring culture changes over a one-year time period.

This report concludes with a short list of opportunities to improve the effectiveness of the Safety Culture IPT. Foremost among those is the need for personal ORP Manager involvement and improved interaction between the ORP senior management team and the Safety Culture IPT.

The ORP Safety Culture Improvement Team will use the results of this validation and effectiveness review, as well as several other recent feedback reports, to work with ORP senior management to define the most important culture improvement actions for the next two years. The updated ORP Safety Culture Improvement Plan will be available by July 2013. Future evaluations of safety culture improvement action effectiveness should be incorporated into the ongoing Safety Culture and Safety Conscious Work Environment self-assessment process – with the next self-assessment anticipated in late calendar year 2014 or early 2015.

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1.0   INTRODUCTION

The U.S. Department of Energy, Office of River Protection (ORP) performed a validation and effectiveness review of the nine ORP near-term safety culture improvement actions described in the ORP Safety Culture Improvement Plan, April 2012. ORP is performing ongoing oversight of Bechtel National, Inc. (BNI) safety culture improvement actions described in the BNI Nuclear Safety Quality Culture (NSQC) Comprehensive Corrective Action Plan (CCAP), and a summary of the oversight results is included in this report.

In December 2011, DOE issued the Implementation Plan (IP) for DNFSB Recommendation 2011-1, *Safety Culture at the Waste Treatment and Immobilization Plant (WTP)*. Action 1-8 of DOE IP 2011-1 is provided below:

Action 1-8:   Develop an action plan and complete ORP actions for safety culture improvements including responses to Health, Safety and Security (HSS) recommendations made to ORP and changes to management and employee performance plans that include specific measures for meeting safety culture expectations.

> Deliverable 1: Letter to DNFSB transmitting action plan.
> Expected Completion Date: April 2012
> Deliverable 2: Letter to DNFSB communicating completion of the action plan.
> Expected Completion Date: April 2013
> Lead: ORP/EM

ORP completed both Action 1-8 deliverables on schedule. Action 1-9 of DOE IP 2011-1 is provided below:

Action 1-9:   Conduct a validation and effectiveness review of ORP and BNI actions, including the WTP safety culture management process, and other actions contained in the BNI NSQC plan.

> Deliverable: Letter to DNFSB communicating completion and transmitting report of validation and effectiveness review.
> Expected Completion Date: May 2013
> Lead: EM

1.1   Methodology

The ORP Safety Culture Integrated Project Team (SCIPT) reviewed the evidence for completion of the nine ORP near-term safety culture improvement actions during the week of May 13 – 17, 2013. Results from the recent ORP Integrated Safety Management System

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(ISMS) Safety Conscious Work Environment (SCWE) Self-Assessment were also reviewed for input on the effectiveness of ORP safety culture improvement actions. The ORP representative tasked with coordinating ORP oversight of BNI safety culture improvement efforts provided a current status of BNI actions, and ORP oversight results. The Associate Deputy Assistant Secretary for Safety, Security and Quality Programs, DOE Office of Environmental Management participated in this validation and effectiveness review.

1.2   Implementation and Effectiveness Evaluation Criteria

The Safety Culture IPT chose the summary evaluation that best described the level of ***Implementation*** *and* ***Effectiveness*** *for each improvement action.*	
Fully Implemented and/or Fully Effective	Evidence demonstrated that the identified actions were completed, and the Safety Culture IPT concluded that expectations for improved demonstration of safety culture attributes related to these actions were met in a repeatable and measurable manner.
Partially Implemented and/or Partially Effective	Evidence demonstrated that the identified actions were partially completed, and the Safety Culture IPT concluded that improved demonstration of safety culture attributes related to these actions could be observed but was not yet consistently applied and measurable.
Not Implemented and/or Indeterminate Effectiveness	There was insufficient evidence to demonstrate completion of the improvement action(s), and the Safety Culture IPT could not determine the effectiveness of the actions in promoting improved demonstration of related safety culture attributes.

Each block in the above table provides two evaluation criteria – one for implementation and one for effectiveness. The criteria can be arranged as necessary to provide the best description

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of implementation and effectiveness for a particular set of safety culture improvement actions. For example, a set of actions could be considered fully implemented, but the Safety Culture IPT could conclude that the actions were only partially effective at providing improved demonstration of safety culture attributes. The "Indeterminate Effectiveness" rating was used when there was too little time since completion of the action to observe any organizational performance or attitude changes, or the actions themselves were judged to be not significant enough to produce noticeable change.

2.0 STATUS AND EVALUATION OF ORP ACTIONS

This section provides the ORP Near-Term Safety Culture Improvement Actions, along with the completion status, in a table format. Under the table for each action, the implementation and effectiveness determination is provided.

Action 1: Develop an ORP management development program which focuses on improving management's modeling of safety culture attributes.

Action 1.a: Identify and implement a safety culture focused training program	COMPLETE -- Hanford has hosted several sessions of the National Training Center SCWE course for senior and mid-level management, with future sessions planned. ORP management has also completed "Five Dysfunctions of a Team" training, and this training is scheduled and in progress for ORP divisions and teams.
Action 1.b: Establish and implement a supervisory and management Individual Performance Plan (IPP) element to encourage a vigorous questioning attitude towards safety, and foster constructive dialogues and discussions on safety matters.	COMPLETE -- New safety culture elements are included in senior management and supervisor performance plans.

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Action 1.c: Develop a management presence program, with the following components: • Establish a goal and track participation for management presence with employees observing work in person, asking questions, coaching, mentoring, and reinforcing standards and positive behaviors. • Establish quantifiable, auditable methods to track performance and compliance. • Develop formal training for management.	COMPLETE -- The new procedure, MGT-PM-IP-11, *Management Presence*, was issued on April 30, 2013, and is available on the ORP intranet. COMPLETE -- The new procedure provides a means for tracking performance. IN DEVELOPMENT -- Development of the formal training on the new procedure is not yet complete, and training has not been conducted.

Action 1 – <u>Partially Implemented / Partially Effective</u>

Accomplishments – The new safety culture expectations contained in supervisory performance plans has led to increased discussion of safety culture topics at the divisional and team level. One division director took on the task of developing well-prepared safety culture briefing packages for other supervisors to use on at least a monthly basis. Staff reported engaging in good discussions with their immediate supervisors on safety issues and safety culture topics. The Deputy Manager used informal lunch meetings with many employees in small groups to improve communications and trust.

In addition to the excellent training developed by the National Training Center, ORP management quickly contracted with a consultant to provide the "Safely Speaking for Managers" course, emphasizing management's role in promoting a safety conscious work environment. ORP management also participated in the "Five Dysfunctions of a Team" training, including several follow-up sessions to improve management team effectiveness.

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Areas Needing Further Attention – The new *Management Presence* procedure, designed to describe and track purposeful management-staff interaction over work responsibilities and issues, was approved at the very end of the near-term improvement action period. Obtaining concurrence on the procedure was difficult due to significantly differing opinions on the necessity and usefulness of the procedure. There has been no training on the new procedure, and with few exceptions, senior management has not yet taken the opportunity to provide clear expectations and develop a unified approach to resolving frequent comments in the recent ORP SCWE Self-Assessment regarding limited interaction and trust between staff and management above their direct supervisor.

While the management training in this first year has been beneficial, there is not yet a defined management training program to continue organizational and safety culture improvements, nor to train new supervisors in these important concepts. This need for a longer range management training program will be addressed after the Safety Culture IPT evaluates several recent feedback reports and updates the Safety Culture Improvement Plan. The ORP SCWE Self-Assessment also pointed out that employees were largely unaware of the management training efforts, and managers typically have not briefed their divisions and teams on the safety culture training, missing an opportunity to introduce and reinforce attributes, expectations, and behaviors.

Action 2: Develop and implement an employee development program containing elements that underpin safety culture attributes.

Action 2.a: Communication tools and training opportunities include: • Illustrate issue resolution programs and processes available to employees. • Provide training on the lessons learned program including divisional points of contact and how the program can be beneficial during the course of daily work. • Provide training on how to engage in active listening.	COMPLETE – ORP delivered Employee Concerns Program / Differing Professional Opinion training and related all-employee announcements. NOT COMPLETE – Insufficient evidence existed to demonstrate completion of this action. IN PROGRESS – The "Five Dysfunctions of a Team" training is being provided at the

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	project/support organization level. Contracts and Property Management completed the training in March 2013. IN PROGRESS -- ORP has contracted with a consultant to develop SCWE/Safety Culture training -- plan to schedule training sessions for June 2013.
Action 2.b: Adopt "Ladder of Accountability" as an organizational value and training tool.	NOT COMPLETE – SCWE training for management covers this concept, but has not yet been provided to ORP staff. There is no evidence of adopting this concept as an organizational value.

Action 2 – <u>Partially Implemented / Indeterminate Effectiveness</u>

Accomplishments – The "Five Dysfunctions of a Team" training has been extended beyond the senior management team with plans to provide it to several divisions and teams within the next year. One division has participated in the training so far, with the next team scheduled in June 2013.

Areas Needing Further Attention – A defined employee development program has not yet been developed. A new safety culture and SCWE training effort is underway however, with plans to record the training to make it available to new employees in the future. In the ORP SCWE Self-Assessment, some employees expressed confusion as to which issue reporting system to use and expressed reservations with the current Employee Concerns Program and the Differing Professional Opinion process. There is little understanding of a systematic lessons learned evaluation and implementation process among federal staff. Beyond the SCWE training that management participated in, there has been little evidence of adopting the "Ladder of Accountability" as an organizational value and training tool, and staff are largely unaware of any emphasis on this important organizational culture concept.

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Action 3: Establish and implement a set of management and staff expectations for safety culture attributes as defined in DOE G 450.4-1C.

Actions include:	
• Develop and communicate organizational values that include safety culture values (e.g. coaching, mentoring, Individual Performance Plans).	COMPLETE – ORP management team developed behavioral expectations -- posted throughout building and announced at an all-employee meeting.
• Provide training for management and staff.	NOT COMPLETE – Although the ORP Manager thoroughly described the behavioral expectations poster at an all-employee meeting, not all employees attended and there has not been any follow-up training provided.
• Define a process to recognize and reinforce desired safety culture behaviors.	COMPLETE – The ORP Deputy Manager worked with DOE Human Resources to enable use of the DOE Thank You Program awards for recognition of good safety culture behaviors.

Action 3 – <u>Partially Implemented / Indeterminate Effectiveness</u>

Accomplishments – The ORP management team devoted substantial effort to developing a concise set of 10 behavior expectations for the organization. The resulting poster is displayed in several locations throughout the 2440 Stevens Center Building, and was thoroughly discussed in an all-employee meeting.

Areas Needing Further Attention – Much more should be done to emphasize and reinforce the list of 10 ORP behavior expectations. Many employees have not noticed the posters, the posters are not displayed in all meeting rooms, and the behaviors are not routinely discussed or used to

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improve team working relationships or to work through problem behaviors. Although the ORP Deputy Manager adapted an existing recognition program to recognize and reinforce safety culture behaviors, very few employees were aware of this process. The "mentoring circle" process, though not designed specifically for safety culture improvement, could be used to reinforce desired behaviors, but some recent participants stated that the process lacked focus, and meetings were too infrequent to be beneficial.

Action 4: Incorporate industry best practices in the development of ORP policy, procedures, and staff and management training documents that emphasize the unique and special nature of nuclear technology and operations.

| Resources to be evaluated include:

• INPO Principles for a Strong Nuclear Safety Culture (November 2004 and Addendum 1, October 2009)

• NRC traits for a positive safety culture

• NEI 09-07, Fostering a Strong Nuclear Safety Culture | COMPLETE – INPO "Principles for a Strong Nuclear Safety Culture" were made available to all employees at the September 2012 ORP all-employee meeting. Posters listing the Principles are posted in numerous workplace locations. The NRC traits and NEI 09-07 were considered in ORP efforts to improve understanding of safety culture, but were not specifically incorporated. To avoid confusion, ORP concentrated on the DOE Safety Culture attributes found in DOE G 450.4-1C, and the INPO Principles. |

Action 4 – <u>Partially Implemented / Indeterminate Effectiveness</u>

Accomplishments – The INPO booklet titled, *Principles for a Strong Nuclear Safety Culture*, was purchased for every ORP employee. The principles were also captured in a poster that was displayed in several locations throughout the 2440 Stevens Center Building.

Areas Needing Further Attention – Distribution of the INPO booklets was incomplete – the availability was announced at the end of an all-employee meeting, and approximately one-third of the organization picked up the booklet. Many were unaware that the booklets were available.

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The minimal progress on this action pointed to other necessary actions that require attention. ORP does not have a management statement or policy regarding safety culture. Some Safety Culture IPT members concluded that if ORP is to make effective progress in improving its safety culture, it needs to engage in purposeful change management to make it happen.

Action 5: Clearly define roles, responsibilities, authorities, and accountabilities.	
Actions include the following: • Update the ORP functions, responsibilities, and authorities manual • Publish a roles and responsibilities document for ORP staff on the ORP webpage • Make the organization char on the ORP website link to the "bio" page and keep the "bio" page current • Define the roles and responsibilities for federal staff performing oversight activities • Identify roles and responsibilities by division/group and ensure resources are matched in quantity and type to assigned workloads	COMPLETE – The ORP plan, MGT-PM-PL-02, Revision 6, *Safety Management Functions, Responsibilities, and Authorities* (updated 02/27/2013) is available on the ORP intranet. COMPLETE – The ORP Staff Biographies have been updated (as of February 2013), but will not be linked to the organization chart. COMPLETE – Addressed in the updated plan, MGT-PM-PL-13, Revision 1, *ORP Management Mission and Functions Statement* (November 28, 2012) which is available on the ORP intranet. Its purpose is to clarify division/group roles and responsibilities. Resource allocation is addressed in periodic management meetings where federal and General Support Services Contractor (GSSC) resources are discussed.

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Action 5 – <u>Partially Implemented / Indeterminate Effectiveness</u>

Accomplishments – The updated procedures and ORP Staff Biographies provide the opportunity for individuals to understand ORP's responsibilities and the divisions and teams tasked with executing those responsibilities. Some new staff particularly appreciated the usefulness of the staff biographies to more quickly understand whom to seek out for information and help.

Areas Needing Further Attention – The newly updated procedures, related to roles and responsibilities were released with little notice to employees. Most did not know the procedures existed. The procedures stop short of defining individual roles and responsibilities and little effort has been applied to formally or informally define individual assignments and interfaces for the good of the entire organization. Although the updated procedures were necessary, some employees struggled to understand if and how their efforts moved the mission forward, and the team could not discern any meaningful impact from the procedure updates. The ORP SCWE Self-Assessment pointed out that many employees report to a division director but receive much of their tasking from a project director in a matrix team approach, potentially contributing to confusion in expectations.

Action 6: Implement an ORP change management process.	
The implementation process should: • Define expectations • Define ownership of the change • Set expectations for ORP staff on implementation (roles and responsibilities) • Train ORP staff • Provide feedback on ORP staff performance on implementation of change • Establishes a contract mechanism for	COMPLETE – The new procedure, MGT-PM-IP-12, *Change Management*, was approved on April 30, 2013, and made available on the ORP intranet on May 2, 2013. The procedure includes the required attributes. ORP is currently performing oversight of BNI's safety culture improvement efforts, including their change management processes.

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ORP oversight of the contractor's implementation of an intended change.	

Action 6 – <u>Partially Implemented / Indeterminate Effectiveness</u>

Accomplishments – ORP released a new change management procedure. The new ORP Issues Manager effectively used change management processes, prior to the formal change management procedure development, to introduce the new Issue Management System to all employees, employing several techniques to reinforce training. Another division director is using the procedure to introduce a new management system directory on the ORP intranet.

Areas Needing Further Attention – Because this procedure was approved at the very end of the near-term safety culture improvement action period, there was insufficient evidence to determine effectiveness. Training on the new procedure has yet to be assigned or conducted. An issue identified in the ORP SCWE Self-Assessment is the sense of mission uncertainty shared among many employees. Some decision processes have been unclear, strategy development has been shrouded, and response to outside influences and media have appeared at times to be reactionary rather than thoughtful, deliberate, and timely. Purposeful change management would greatly improve staff confidence in management capabilities to effectively work through uncertainty and change. It could also help resolve feedback such as that provided by the 2012 Federal Employee Viewpoint Survey where only one-third of the participants responded positively to the statement, "In my organization, leaders generate high levels of motivation and commitment in the workforce."

Action 7: Establish and implement a program for ORP to effectively handle issues and establish an ORP issues manager.	
Program elements must include: • feedback mechanisms • transparency • traceability • benchmarking • performance monitoring, trending, and metrics that communicate issue resolution to employees	COMPLETE – The ORP Issue Management System, along with procedure TRS-ISS-IP-02, *Issue Reporting and Resolution*, was implemented beginning on October 12, 2012. Several initial and follow-up training sessions with all ORP organizations were conducted to promote use of the new zero-threshold system.

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In addition, this program will trend issues for safety conscious work environment attributes. ORP will incorporate issues management into a formal prioritized activity within senior managerial duties.	Management and employees participate on the Issues Screening Team, and senior management oversight is routinely provided by the Management Review Committee.

Action 7 – **Fully Implemented / Partially Effective**

Accomplishments – ORP management most aggressively pursued this safety culture improvement action, quickly selecting a new ORP Issues Manager with experience in this area. The ORP Issues Manager performed benchmarking activities and selected the best, readily available software, developed a new procedure and training aids, and kicked off the new issues management system (IMS) at the very beginning of fiscal year 2013, allowing several months of run time to be evaluated for this review and for the ORP SCWE Self-Assessment. In the ORP SCWE Self-Assessment, the "majority of employees stated that they are aware of IMS and like the new system. Employees are optimistic that the new IMS will provide a better avenue for issue tracking and resolution." IMS is a zero-threshold system, representing an easy way for employees to raise any level of issue. This is an improvement over the old ORP Action Reporting System (OARS) which required evidence of a "condition adverse to quality" before an issue could be entered and tracked. The team considered this action to be fully implemented. Widespread employee acceptance and use of the system will take time and continued management support before the IMS is considered fully effective.

Areas Needing Further Attention – Employee use of the IMS is growing, but would benefit from increased management emphasis through discussing selected issues with employees, and through positive recognition and reinforcement for use of the system to display a healthy questioning attitude. The 2012 "Speak-Up" Survey evaluated ORP's "questioning attitude" as below the ORP average score on all safety culture elements, and below what is desirable for high-performing organizations.

Action 8: Evaluate the Employee Concerns Program (ECP) and develop improvement plans to address at a minimum the items below:	
• Flowchart the existing ECP and Differing Professional Opinion (DPO)	COMPLETE – The flowcharts are contained in the updated ECP and DPO

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processes with an integrated project team including recommendations for improvements.	procedure.

• Develop and communicate the following performance indicators:
  o Validation of factual accuracy
  o Resolution of items referred to the contractor's ECP program
  o Review of investigation results with concerned individual before closure
  o ECP customer satisfaction
	COMPLETE – The ORP Deputy Manager collaborated with the RL Employee Concerns Program manager to develop the required performance indicators -- which are delivered and discussed monthly.

• Revise the ECP and DPO processes to incorporate specific steps to ensure respect for the concerned individual, validation of their issues, timely feedback, and to involve the individual in issue closure and communicate the results of the process improvement activity.	COMPLETE – Revised the ECP and DPO processes, incorporating feedback from the recent HSS Assessment and EM Assist Visit, in accordance with ECP Improvement Plan.
• Perform a test of the DPO process to evaluate the processes and provide feedback for improvement.	COMPLETE – ORP has exercised the DPO process at least twice, with one of the cases including use of the HQ appeals process.

Action 8 – <u>Fully Implemented / Partially Effective</u>

Accomplishments – The ORP Deputy Manager played a key role in improving collaboration between ORP and the Richland Operations Office to improve the visibility and effectiveness of the ECP and DPO process. The procedure has been updated based on internal and external feedback, performance indicators are used, and access to ECP services at ORP has been improved through part-time staffing in the 2440 Stevens Center Building. One individual who has used the ECP program both before and after the improvement efforts noted a substantially improved experience. This action is considered fully implemented.

Areas Needing Further Attention – As with the IMS (Action 7) discussed above, continued management recognition and reinforcement of employee use of these systems is necessary to

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overcome employee reluctance to use these avenues, due to the perception that such use would be "career-limiting" or not worth the effort. The team considered the improvements to be partially effective at countering those perceptions and encouraging use.

Action 9: Maintain the Safety Culture IPT as an integral part of the ORP with its primary mission to continuously improve ORP safety culture.

Maintenance elements include:

- Implement periodic "road shows" with Safety Culture IPT members visiting each division to hold discussions (focus groups) about safety culture.

NOT COMPLETE – Since development of the Safety Culture Improvement Plan, "road shows" (where members of the Safety Culture IPT periodically attend ORP division and team meetings to provide safety culture information and obtain feedback) have not been held as envisioned, although there have been safety culture presentations at all-employee meetings, and some divisions have held discussions on safety culture at their routine meetings.

- The IPT will serve as an important, ongoing management tool to reinforce values and identify areas for improvement transparency.

COMPLETE -- The present and previous ORP Managers have supported the ORP Safety Culture IPT through application of significant personnel resources in the development and implementation of the ORP Safety Culture Improvement Plan. Five of the original team of twelve individuals were recently replaced with eight new members, adding fresh ideas to ORP's continuous improvement efforts. The new safety culture team will update the ORP Safety Culture Improvement Plan by July 2013 based on feedback from the ORP Safety Culture Self-

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	Assessment, the Speak-Up Survey, the Federal Employee Viewpoint Survey, and this Validation and Effectiveness Review of the previous year's safety culture improvement actions.

Action 9 – <u>Partially Implemented / Partially Effective</u>

Accomplishments – Following development of the ORP Safety Culture Improvement Plan, ORP management continued to support the IPT's efforts to provide feedback on improvement efforts. The most significant team effort was the ORP SCWE self-assessment, requiring substantial management support to free up the personnel resources to participate. ORP management response to the self-assessment was swift, with the Deputy Manager providing analysis and tasking other management team members to develop response actions. One IPT member provided well-crafted safety culture topics at ORP all-employee meetings.

Areas Needing Further Attention – After a very strong start, team member participation in the safety culture improvement efforts lost momentum as members returned to their normal duties. Communication between the Safety Culture IPT and senior management was too infrequent to provide ongoing feedback and support to management's efforts. Some senior management used team members to help work on the actions, and some did not. The team did not continue the recommended "periodic road shows," and informal feedback during the first year of improvement efforts indicated that the initial emphasis on safety culture in ORP had dropped off and was not very visible to the average employee. The overall ORP safety culture improvement effort would benefit from a renewed and highly visible top management focus on organizational and safety culture, including more frequent interaction with the Safety Culture IPT and clear expectations of how the team can support ORP management and staff. Up to now, the major actions have been defined by the DOE Implementation Plan 2011-1, but ORP must work with EM to define longer term improvement and sustainment actions.

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3.0   BNI ACTION STATUS AND ORP OVERSIGHT

BNI's Nuclear Safety Quality Culture (NSQC) Comprehensive Corrective Action Plan (CCAP) contains 50 actions broken into six strategic improvement areas:

  A. Realignment and Maintenance of Design and Safety Basis
  B. Management Processes of the WTP NSQC
  C. Timeliness of Issues Identification
  D. Resolution, Roles, Responsibilities, Authorities, and Accountabilities
  E. Management and Supervisory Behaviors
  F. Construction Site-Unique Issues

The scheduled completion date for the last actions is December 2013. Twenty-seven actions were complete as of March 31, 2013, with an additional 12 planned to be complete by June 30, 2013. Of the six strategic improvement areas, "B", "C", "E", and F" are generally on schedule. The two areas that are behind schedule are A. Realignment and Maintenance of the Design and Safety Basis and D. Roles, Responsibilities, Authorities and Accountabilities. Some of the actions in "D" are joint actions with the ORP and a decision was made to delay those actions pending arrival and involvement by the new WTP FPD and ORP Manager. The preparation to complete those actions is underway with completion planned for September 2013. The initial actions in "A" took longer than originally planned but the effort is now moving forward and should still meet the final completion date.

ORP has completed surveillances on 19 of the 27 completed actions identifying 7 opportunities for improvement. Because changing an organization's culture takes time, the current oversight efforts are focused on verifying actions have been completed. Once BNI has completed all of the actions contained in their NSQC CCAP, ORP will work with BNI to complete an effectiveness evaluation to determine if the actions taken have resulted in an improved BNI NSQC. The Safety Culture IPT recommends that this effectiveness evaluation be conducted during the next SCWE Self-Assessment – likely in late 2014.

4.0   SAFETY CULTURE IPT OPPORTUNITIES FOR IMPROVEMENT

Safety Culture Improvement Plan – When the DOE Office of Health, Safety and Security (HSS) released their *Independent Oversight Assessment of Nuclear Safety Culture and Management of Nuclear Safety Concerns at the Hanford Site Waste Treatment and Immobilization Plant – January 2012*, ORP formed the Safety Culture IPT to develop a safety culture improvement plan. Desiring to capture all the issues contained in the report, and desiring to recast the report in the DOE safety culture construct, Safety Culture IPT members devoted nearly two months to an extensive analysis and action development process. This intense effort

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yielded benefits in terms of team cohesiveness, but in hindsight proved to be too resource-consuming to consider a similar effort in the future. A more time-effective plan would be to select the most important of the HSS recommendations and focus on the few improvement actions that will make a significant foundational difference.

Team Activities – Beyond development of the initial Safety Culture Improvement Plan, the Safety Culture IPT struggled to define what the team should be doing during the action implementation phase. Some of the team members were employed helping senior management carry out the actions, while others were not. The following is a short list of potential activities that could result in more effective use of the team:

- Members pulse parent organizations with a series of pre-determined questions throughout the year, bringing results back to the IPT. The IPT could roll the results into concise and ongoing feedback items to assist senior management between the more comprehensive self-assessments.

- Receive more regular briefings on IMS and the issues raised. Conclusions can be passed back to the parent organizations to promote continued emphasis on use of the system.

- Consult with other sites on their best practices. Participate in Energy Facility Contractor Operating Group (EFCOG) sessions related to safety culture. Engage the local Nuclear Regulatory Commission resident inspectors to exchange safety culture perspectives.

Senior Management Emphasis on Safety Culture – The Safety Culture IPT was established with the primary mission to continuously improve ORP safety culture. There is much the IPT can do to improve its effectiveness in that mission, but the overall ORP safety culture posture depends very heavily on personal ORP Manager involvement with frequent communications to the entire organization. The past, and current, delegation of safety culture improvement responsibilities to the Deputy Manager has resulted in improvement to ORP's safety culture, and the Deputy Manager has set the example for ownership. The team concluded that ORP would experience more effective and continuous safety culture improvement if the ORP Manager was directly engaged in the ongoing improvement efforts. An excellent starting point could be one or more facilitated sessions with the ORP Manager and his senior management team directly interacting with the Safety Culture IPT to identify meaningful ways to communicate and display safety culture attributes.

Borrowing from EM testimony to the DNFSB in March 2012, future improvement efforts must be developed with a view to exhibiting leadership behaviors that foster a strong safety culture, encourage a vigorous questioning attitude, and establish a high level of trust.