



U.S. Department of Energy
Office of River Protection

P.O. Box 450, MSIN H6-60
Richland, Washington 99352

FEB 25 2008

08-TOD-017

Mr. W. S. Elkins, Project Director
Bechtel National, Inc.
2435 Stevens Center Place
Richland, Washington 99354

Dear Mr. Elkins:

CONTRACT NO. DE-AC27-OIRVI4136 -- ASSESSMENT REPORT A-08-AMTF-RPPWTP-007 BECHTEL NATIONAL INC. (BNI) READINESS FOR A VOLUNTARY PROTECTION PROGRAM (VPP) ONSITE REVIEW AT THE WASTE TREATMENT AND IMMOBILIZATION PLANT

This letter forwards the results of the U.S. Department of Energy (DOE), Office of River Protection (ORP) assessment of the BNI readiness for a DOE-Headquarters (HQ) VPP on site review. The ORP assessment was conducted from January 21 through 24, 2008, with support from CH2M HILL Hanford Group Inc. and Washington Savannah River Company. This assessment performed a review of the field application of VPP rather than a full VPP assessment.

The Assessment Team concluded that the BNI construction site is not ready for a DOE-HQ VPP review. The Assessment Team did note that with continued focus and effort, VPP STAR status is achievable. The assessment resulted in recommendations to delay the DOE-HQ VPP Assessment (currently scheduled for March 2008), and to perform a full VPP self-assessment to evaluate all areas of VPP on site. The Assessment Team also provided a discussion of Strengths and Opportunities for Improvement for BNI consideration.

ORP is committed to the VPP and fully supports BNI focus and effort towards VPP STAR status.

If you have any questions, please contact me, or your staff may contact Mark C. Brown, Director, Tank Farm Oversight Division, (509) 376-9951.

Sincerely,

A handwritten signature in black ink, appearing to read "Shirley J. Olinger".

Shirley J. Olinger, Manager
Office of River Protection

TOD:GDT

Attachment

cc w/attach: See Page 2

Mr. W. S. Elkins
08-TOD-017

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cc w/ attach:
G. Cantrall, BNI
D. Gergely, BNI
D. Leeth, BNI
W. Lung, BNI
Administrative Record
BNI Correspondence

Office of River Protection

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

A-08-AMTF-RPPWTP-007

Bechtel National Inc. Readiness for a Voluntary Protection Program Onsite Review at the Waste Treatment Plant

January 21-24, 2008

Assessment Team

Mark Brown – DOE ORP
Philip Coretti – WSRC
Barbara Guenveur – WSRC
Liz Norton – CH2M HILL
Glyn Trenchard – DOE ORP

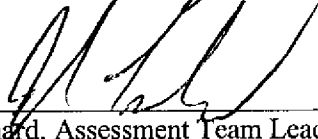
**Bechtel National Inc. Readiness for a
Voluntary Protection Program Onsite Review
at the Waste Treatment Plant**

Assessment Report Approval

Approved:



Shirley Olinger, Manager, Office of River Protection



Glyn Trenchard, Assessment Team Leader

Executive Summary

A team, lead by the U.S. Department of Energy (DOE) Office of River Protection (ORP), conducted a Voluntary Protection Program (VPP) assessment at the Bechtel National Inc. (BNI) Waste Treatment Plant (WTP) construction site from January 21 through January 24, 2008. The objective of the assessment was to determine whether the project was ready for a DOE-Headquarter (HQ) VPP on site review by evaluating the safety culture and gauging the current state of VPP implementation. The Assessment Team also provided some recommendations for improvement.

Conclusion

The Assessment Team concluded that the BNI construction site is not ready for a DOE-HQ VPP review. The Assessment Team did note that with continued focus and effort, VPP STAR status is achievable.

Recommendations

The assessment resulted in two recommendations:

- The Assessment Team recommends that BNI Management request DOE-HQ (Brad Davy) to delay the DOE-HQ VPP Assessment (currently scheduled for March 2008). The delay will allow time for WTP to adequately address existing issues identified in the Safety Improvement Plan (SIP) and the opportunities for improvement identified in this report.
- The Assessment Team recommends that BNI perform a full VPP self-assessment to evaluate all areas of VPP on site. A final self assessment will provide objective evidence that WTP is ready for the pending onsite review by DOE-HQ.

During the assessment, the Team noted both Noteworthy Practices and Opportunities for Improvement:

Noteworthy Practices:

- Consistently heard from the craft, "This is the safest place I've ever worked";
- The Team observed safe work behaviors; Personnel Protective Equipment (PPE) use is excellent;
- Worksite cleanliness and organization is very good;
- Initiation of the Craft Safety Representative Program;
- Safety Education Through Observation (SETO) seen as valuable, well attended and has excellent leadership;
- Employees value involvement in the pre-job Safety Task Analysis Risk Reduction Task (STARRT) Card and active involvement was observed by the Assessment Team; and
- VPP Team Coordinator is a full time position held by a craft employee.

Opportunities for Improvement:

- A written document stating support for the VPP and signed by each of the authorized bargaining agents (each union) was not available.
- Communication/Feedback to the workforce should be strengthened.
- There is a perception that responsiveness to craft issues and concerns is inadequate.
- Most craft are comfortable raising safety issues, but 5% stated they would not raise an issue due to fear of retaliation.
- Some Health-related issues did not get the same focus as Safety.
- Employee knowledge of VPP purpose and benefits was weak.
- Positive individual recognition for safety performance is limited.
- There is a perception of slow/nonexistent Project Issues Evaluation Reporting (PIER) closure and feedback.
- The SIP does not adequately prioritize and close items to validate readiness and prepare for the DOE-HQ Assessment; Closures are seen to be document-oriented rather than performance and/or implementation based
- Workers reported different application of safety standards between buildings; however, at least one area supervisor noted recent improvement in this area.
- Employee awareness of Safety Council accomplishments is lacking.
- Four (of twenty) Foremen/General Foremen/Superintendent interviewees did not show up to the scheduled interviews.
- WTP would benefit from additional evaluation by an experienced VPP advisor/mentor to provide guidance to the VPP Committee.
- The vast majority of the VPP Committee (who know the subject and are close to the work force) do not think that the site is ready for a DOE-HQ Assessment.

1.0 Introduction and Background

The U.S. Department of Energy (DOE) Office of River Protection (ORP) conducted an assessment of implementation of the Voluntary Protection Program (VPP) at the Waste Treatment Plant (WTP) construction site from January 21 through January 24, 2008.

In April 2007, a VPP Team, mainly from the Savannah River Site (SRS), performed a thorough evaluation of WTP. This review found that in general, the Safety and Health management system at WTP was exceptional for a heavy construction site. One concern was how WTP would ensure the maintenance and continued improvement of the safety culture once manpower levels increase. At the time of the April 2007 assessment, there were approximately 350 craft on site; during this assessment nine months later, that number had grown to over 700.

Bechtel National Inc. (BNI) submitted a VPP application, which was reviewed and approved by ORP. After the approval of the VPP application, ORP was contacted by several workers who had concerns with the safety culture and the level of VPP commitment at the WTP. In response to these concerns, ORP performed interviews of workers and supervisors on a limited scale during an on-site review on December 13, 2007. Because the results were not conclusive, ORP decided to perform a more thorough review with a larger sample size in order to evaluate the overall safety culture at the WTP construction site. As a result, this assessment was performed.

2.0 Purpose and Scope

The objective of the assessment was to determine whether the project was ready for a DOE-HQ VPP on site review by evaluating the safety culture and gauging the current state of VPP implementation. The Assessment Team also provided some recommendations for improvement. It is important to note that this assessment was narrow in scope and short in duration. It was a review of the field application of VPP rather than a full VPP assessment.

3.0 Approach

The Assessment Team performed the review using guidance from DOE/EH-0436, *U.S. Department of Energy Voluntary Protection Program Part IV: Onsite Review Handbook* and consistent with ORP M 220.1, *Integrated Assessment Program*. In line with the planned scope, this assessment addressed field implementation and focused on the front line worker with only a minor examination of support documents.

The Assessment Team Lead conducted an entrance briefing on January 21, 2008. The Assessment Team performed field work on January 22 and 23, which included facility walkthroughs (including Pre-treatment, Low Activity Waste, Laboratory, High Level Waste and Balance of Facilities) combined with job-site interviews of 73 Craftsmen

(including Carpenters, Laborers, Pipefitters, Electricians, Cement Masons, Painters, and Operating Engineers). In addition, 16 supervisors (Foreman, General Foreman, Superintendent, or Manager) were interviewed. The Assessment Team attended meetings held by the VPP Committee, SETO, and the Safety Council. The Team reviewed limited procedures to assist in evaluating the field observations (e.g., PIERS, STARRT Card, Stop Work).

The Assessment Team held an exit briefing on January 24, 2008.

4.0 Assessment Results

In line with the scope, this assessment focused on field implementation and looked at the worker in the field much more than the requirements and support documents. The Assessment Team did not investigate to validate or determine the causes of what the workers were reporting; as a result, some issues were documented as a perception of the workers.

One example of this is the perception of the PIER system. The workers state that the response time on PIERS is too long, taking several months to hear back. They also stated that PIERS were occasionally closed without the originator being contacted. The Issues Manager demonstrated to the Assessment Team how additional instructions are attached to craft-generated PIERS. These instructions drive the evaluator to notify the originator when they start reviewing the PIER and again before PIER closure. If these instructions are followed, the craft issues should be addressed. The Assessment Team did not evaluate this further to determine whether the craft had specific recent examples or whether their concerns were driven by the past practices.

The Assessment Team used the results of observations and interviews to develop Noteworthy Practices and Opportunities for Improvement.

4.1 Noteworthy Practices

The Assessment Team consistently heard “This is the safest place I’ve ever worked.”

The workers rate the BNI WTP construction site as a very safe place to work. Many workers stated that it was the safest job they had ever worked. This was true even from the few workers that held generally negative perceptions of the safety culture at WTP.

The Assessment Team observed safe work behaviors; PPE use is excellent.

The Assessment Team noted consistent safe work practices and a clear focus on safety in all tasks. Workers were diligent in the wearing of prescribed PPE and respectful of barricades and other boundaries. They were extremely cognizant of the need to work safely and the expectation that they performed work in a safe manner.

It appeared that the Safety Culture at WTP had served to raise the safety culture for many of the new workers to the site.

Worksite cleanliness and organization is very good.

Job site housekeeping programs appeared to be effective. While some attention is needed to maintain the outside areas and some less frequently used work locations, housekeeping was above average in most work areas.

Initiation of the Craft Safety Representative Program.

Interviews for Craft Safety Representative were being performed during this assessment. The craft had a strong role in the development of the position description and was empowered to interview the applicants and subsequently select the successful candidates for these positions. There were thirty-nine applicants for five positions, showing strong commitment to safety. The Craft Safety Representative Program is a positive step and should provide a superior means to address some of the issues identified by the craft.

SETO seen as valuable, well attended and has excellent leadership.

Workers interviewed were very familiar with the SETO members and their activities, and saw a positive impact from having the team in place. The Assessment Team noted that SETO had excellent leadership that helps to drive this positive impact. As site issues and/or initiatives arise, they create focused checklists, perform observations, and trend the data. The SETO committee functions independently and is self-motivating and self-directing.

Employees value involvement in the pre-job STARRT Card and active involvement was observed by the Assessment Team.

The STARRT Card and associated pre-job walkdowns allow workers to be directly involved in the hazard evaluation/mitigation for the tasks they will perform each day.

The VPP Committee Coordinator is a full time position held by a craft employee.

Providing a full time position for a VPP Committee Coordinator shows company commitment to VPP and allows that employee to perform the job without the distraction of additional duties.

4.2 Opportunities for Improvement:

These items range from those that are minor issues noted by the Assessment Team to those that do not meet the established VPP criteria.

A written document stating support for the VPP and signed by each of the authorized bargaining agents (each union) was not available.

The VPP Onsite Review Handbook states "All authorized bargaining agents for employees involved in operations covered by the application provided signed written statements of concurrence with the application". While the Central Washington

Building and Construction Trades Council (CWBCTC) have signed a commitment statement, the individual craft unions have not provided written statements of concurrence with the VPP application. This has resulted in a perception of uncertainty regarding the "degree of union support" for the program. Although the Building and Construction Trades Council support letter exists, the belief in the field (by management and craft) is that two of the unions have refused to provide written support for VPP as required by the VPP handbook. This issue is critical to WTP being successful in their attempt to attain the VPP Star.

Communication/Feedback to the workforce should be strengthened.

The Assessment Team found that communication of negative issues is widespread using word-of-mouth, but positive examples do not spread with a similar degree of effectiveness. One example of this has to do with a Work Pause related to icy conditions on the LAB roof. In this case, a BNI employee went to work on the LAB roof and noted the walking surface was icy and slippery. He saw some subcontractor roofers working in the area, and stopped work (a Work Pause by the formal definition). The work stopped and the hazards were evaluated. As a result, the roof was turned over to the subcontractor to control access. Although corrective actions were taken by the subcontractor, the BNI employees in the area were not made aware of the changes. What they saw was BNI raising safety concern and the corrective action was to not allow BNI in the work area. Communication issues may also play a part in other Opportunities for Improvement identified in this report.

There is a perception that responsiveness to craft issues and concerns is inadequate.

The employees interviewed reported delays in procurement of safety equipment and PPE, sometimes lasting months. Items reported included Gloves, Air Fed Hoods, AA Batteries for flashlights, Hard Hat Flashlights, Hard Hat Liners for cold weather, and Cotton PPE required for some electrical work. While there may be a logical explanation for each item listed, these add up to degrade the workers' perception of the company commitment to safety. In addition, the WTP Safety Council tracks completion of action items to correct issues. This list currently has eighteen items, ten of which are over two months old; and some that have been ongoing issues that have not been solved. In addition, many of the employees interviewed stated that they would not use the PEIR system due to excessive response time. As noted above, the Assessment Team did not determine whether this is a perception based upon past practices or whether there is a current problem with responsiveness.

Most craft are comfortable raising safety issues, but 5% stated they would not raise an issue due to fear of retaliation.

Four of the seventy three workers interviewed stated that they would not raise an issue due to fear of retaliation. Of the four, two worked for a single supervisor and attributed this directly to him.

Some Health-related issues did not get the same focus as Safety.

The Assessment Team observed a strong focus on safety, but noted that some potential health issues did not get the same level of attention. The WTP response to potential hanta virus/pest control is inadequate and a plan is needed for biohazard clean up. Workers noted that some locations did not provide toilet seat covers, although they had been requested. During the interviews, some workers were concerned that in the past, the Fire Protection PPE was reused without laundering. While now it is laundered, it is laundered at the mask station and the workers were not sure if it met sanitation standards.

Employee knowledge of VPP purpose and benefits was weak.

While all of the employees interviewed were aware that WTP is attempting to achieve STAR status in the DOE-VPP, they have a very poor general knowledge of the program and the benefits provided to the individual worker. This included supervision. While workers are not expected to be able to recite the elements or tenants of VPP, they must be aware of the worker benefits and their rights under the program. In addition, Management should be aware of their responsibilities regarding VPP. This is critical to satisfactory implementation and must be corrected prior to a DOE-HQ review. Workers supported VPP efforts, but considered it a company benefit; few said it was a benefit to the employee. Overall, there appeared to be a lack of a team approach to achieving VPP.

Positive individual recognition for safety performance is limited.

While a formal system appears to be imminent, the Assessment Team did not observe, and the workers were not aware of, a program for individual positive recognition. The VPP Onsite Review Handbook states that procedures for positive reinforcement must be written, communicated to employees and used. A "Thank You" or "Good Job" goes a long way and safety recognition programs help drive that. Positive recognition serves to advertise success. Additionally, the Assessment Team did not see an avenue for peer-to-peer recognition.

There is a perception of slow/nonexistent PIER closure and feedback.

As noted above, the workers state that the response time on PIERs is too long, taking several months to hear back. They also stated that sometimes their PIERs were closed without the originator being contacted. These perceptions may drive reluctance to generate PIERs.

The Issues Manager showed the assessor how additional instructions are attached to craft-generated PIERs. These instructions drive the evaluator to notify the originator when they start reviewing the PIER and again before PIER closure. If these

instructions are followed, the craft issues should be addressed. The Assessment Team did not evaluate this further to determine whether the craft had specific recent examples or whether their concerns were driven by the past practices. The Assessment Team considers the reminder to contact craft a critical step that should be

formalized by incorporating those instructions in the PIER procedure. The Assessment Team noted that the PIER procedure (245900-WTP-GPP-MGT-022, Rev. 3 *Project Issues Evaluation Reporting*) did not include requirements for adequate closure timeliness with regard to safety related issues outside of those deemed "Imminent Danger". For example, the icy roof issue discussed above resulted in a PIER that had a closure due date set at 30 days. To ensure the safety of personnel, safety related issues must be evaluated for impact immediately and mitigated accordingly. Feedback to the originator regarding mitigation and closure is essential (e.g, this is what was done for temporary mitigation and this is the plan for permanent closure). The employee must also be part of the problem solving process.

The Safety Improvement Plan does not adequately prioritize and close items to validate readiness and prepare for the DOE-HQ Assessment.

Overall, there was not an established strategic plan with actions needed to validate readiness and prepare for a DOE-HQ VPP Assessment. SIP actions are not prioritized or ranked to show which must be done prior to a certification assessment and which can stay open as improvement items. In addition, it is not clear that SIP closures are based on effective implementation of programs rather than generation of programs. Action items should be validated for effectiveness using a formal process prior to closure.

Workers reported different application of safety standards between buildings.

In some locations workers were aware of a recent requirement revision disallowing sweatshirt hoods to be worn under a hard hat; while in other locations, workers were not aware of the change. The Assessment Team noted that some areas were posted as hearing protection required when a certain activity is ongoing, while others were posted simply "Hearing Protection Required". This is a Human Performance issue that sets the stage for errors (as it could result in workers not complying with the hearing protection required posting if the noise was not present). PPE should be required when the hazard is present and the signs should reflect that requirement. Some workers reported different application of safety standards from building to building, including application of falling object barriers and fall protection requirements. At least one supervisor interviewed indicated that recent improvement was noted in this area.

Employee awareness of Safety Council accomplishments is lacking.

The Assessment Team found that general employee awareness of the activities and accomplishments of the Safety Council, VPP Committee, etc. is lacking. Safety Teams did not appear to be empowered with authority/budget to implement corrective

actions. Additionally, the Safety Council appeared to be unpracticed at communicating information back to employees.

Four (of twenty) supervisor interviewees did not show up to the scheduled interviews.

Four of the scheduled twenty supervisor (Foremen, General Foremen, and Superintendent) interviewees did not show up to the scheduled interview. While this did not impact the effectiveness of this assessment, it is a data point that DOE-HQ uses in the evaluation of an organization regarding Management Commitment to the process.

WTP would benefit from additional evaluation by an experienced VPP advisor/mentor.

There is no requirement to use an advisor or mentor, but frequent discussion with those seasoned in the VPP application and review process could be beneficial. Many applicants employ the aid of an experienced Mentor to help guide them by averting mistakes of the past and sharing lessons learned during successful bids for the Star. While BNI has used some mentoring throughout the process, additional mentoring to focus on final preparations for a DOE-HQ review would be beneficial through the use of shared tools, methods and experience. There are potential candidates for this role, both on and off of the Hanford Site.

The vast majority of the VPP Committee do not believe that the site is ready for a DOE-HQ Assessment.

These are the workers who know both the VPP Program and the WTP environment and work force. The VPP Committee has to know that they and the WTP are ready and must be able to display confidence in that decision. Use of a strategic plan that lists actions, responsibilities and what constitutes closure of those actions (noted above) will help the VPP Committee in this area.

5.0 Conclusion:

The Assessment Team does not believe the WTP has fully implemented programs with sufficient rigor nor adequately reinforced expectations throughout the dynamic workforce to ensure a successful DOE-HQ VPP on-site review. The Assessment Team also concluded that with continued focus and effort, VPP STAR status is achievable.

6.0 Recommendations:

The assessment resulted in two recommendations:

- The Assessment Team recommends that BNI Management request DOE-HQ (Brad Davy) to delay the DOE-HQ VPP Assessment (currently scheduled for March 2008). The delay will allow time for WTP to adequately address existing issues identified in the SIP and the opportunities for improvement identified in this report.
- The Assessment Team recommends that BNI perform a full VPP self-assessment to evaluate all areas of VPP on site. A final self assessment will provide objective evidence that WTP is ready for the pending onsite review by DOE-HQ.