

Site Visit Report – Review of Work Planning/Execution and the Employee Concerns Program at Paducah – March 2010

This report documents the results of a review activity performed by the Office of Health, Safety and Security (HSS) in support of the Department of Energy Office of Environmental Management (EM). The purpose of the review was to support EM management efforts to resolve issues and enhance planned corrective actions for worker safety concerns expressed by several safety professionals at the Paducah Plant.

The review was conducted by the Office of Health Safety and Security with an EM observer during the week of February 8, 2010. Observations and recommendations resulting from this review were discussed with representatives of EM's Environmental Management Safety Operations Assurance, the Portsmouth/Paducah Project Office (PPPO) and Paducah Remediation Services (PRS) on February 12, 2010.

BACKGROUND:

On September 11, 2009, several safety professionals working under the PRS contract submitted an employee concern. This concern was investigated by the PPPO and resulted in seven recommendations, as documented in a PPPO report entitled *U.S. Department of Energy Paducah Employee Concern Investigation* (PPPO-02-209-10), dated November 24, 2009.

PRS was directed to develop a corrective action plan (CAP) within 30 days to address six of these recommendations. PRS submitted an initial CAP on January 9, 2010. Following discussions with PPPO, PRS submitted its final CAP to PPPO on January 28, 2010. The seventh corrective action was directed to PPPO and involved improving the PPPO employee concerns program (ECP).

The Assistant Secretary for EM requested the Office of Independent Oversight to conduct a review of the PPPO and PRS ECPs, and work planning and execution by PRS. EM requested that HSS focus on providing information to support EM, PPPO, and PRS efforts to resolve issues identified during the employee concerns investigation, including developing recommendations for enhancing the PRS CAP.

RESULTS:

Based on observations of three work activities, document reviews, and interviews of workers, line managers, safety and health (S&H) professionals, and other personnel, the review team assessed the current conditions as they related to the seven specific recommendations included in the November 24, 2009, employee concern investigation report. Following a brief discussion of overarching issues, the remainder of this section restates each of the original seven recommendations from the 2009 investigation report; summarizes the HSS assessment results for each area, and recommends additional actions that would more fully address the employee concern investigation report recommendations. In conducting this review, HSS

recognized the relatively short period between issuance of the PRS CAP and the start of the review.

There were three overarching issues identified during this review. First, the CAP has not had input from several PRS managers assigned responsibility for the corrective actions. As a result, several of the corrective actions assume incorrect conditions (e.g., lack of adequate procedural guidance or assignment of roles and responsibilities that have already been assigned), or may not be the most effective corrective action to resolve the PPPO concern. Second, the expiration of the PRS contract on June 30, 2010, impacts the opportunity to implement long-term actions, as many of the safety culture issues cannot be fully resolved in a short time period. Although this is a complicating factor, delaying action until the new contract is in place is not a realistic option. Third, the CAP does not document immediate corrective actions or completed corrective actions taken by PRS to resolve the PPPO identified issues. PRS identified and completed a number of corrective actions with respect to the PPPO investigation. These corrective actions are documented in the PRS Draft CAP (DE-AC30-06EW05001) dated January 9, 2010. Although not documented in the CAP, HSS considered the completed corrective actions in its review.

PPPO-02-209-10, Item #1

PRS needs to enhance current communication programs and processes to effectively communicate the overriding expectation that all work will be performed safely even given the challenging goals for project performance. No one will be placed at risk to meet schedule performance. Effective communication includes, but is not limited to, transmitting the results of safe work performance improvement initiatives (Mentoring program, Culture Survey, ISMS corrective actions), providing feedback on safety improvements (safety concerns resolution, general corrective actions, feedback on revised program requirements), and reaffirming expectations that each worker is responsible for safety.

Assessment: The overall PPPO concern was that current PRS communications programs and processes were not sufficient to ensure that all work would be performed safely and that no one would be placed at risk to meet schedule performance. To address this PPPO concern, PRS has identified the following five broad corrective actions (each of the broad actions may have one or multiple numbered sub-actions):

- Communicate current improvement initiatives from assessments, investigations, and surveys.
- Brief each stop work to the site manager.
- Communicate incident/event issues through plan of the day and flow down to front line supervision.
- Present to workers plans for future work scope, schedule, labor and a project approach.
- Provide updates of investigations, CAPs, and status of long-term implementation through a weekly newsletter.

Prior to the issuance of the final CAP, PRS completed one action to develop a core set of values including safety and performance and communicated these values to all employees.

Although these corrective actions have benefit, they are not fully sufficient to effectively resolve the PPPO concern with respect to communicating the overriding expectation that all work will be performed safely even given the challenging goals for project performance. During interviews, for example, concerns were raised that meeting production schedules has resulted in a variety of actions that could compromise safety. The corrective actions also do not address several specific concerns raised by the PPPO, such as transmitting the results of the safety culture survey, ISMS corrective action status, providing feedback on safety improvements, etc. Although some of this information is dated and PRS plans to conduct a new culture survey, failure to transmit previous survey data and related actions from those results may negatively affect employee participation on future surveys.

In another example, the corrective action to provide more timely notifications to the Site Manager following a stop work/ suspend work may enable the site manager to provide more timely assessment and involvement in the activity; however, neither this corrective action nor others proposed provide any greater assurance that workers and front line managers have a greater understanding of when and how to stop work, or that workers and front line managers will be less intimidated to initiate a stop work action under the appropriate circumstances. Based on interviews, workers indicated a reluctance to stop work for a variety of reasons such as: (1) at the three decontamination and decommissioning (D&D) projects, some new workers are concerned about the impact of initiating a stop work on continued employment, and (2) at the Surveillance and Maintenance Projects, as well as the D&D projects, some of the more seasoned workers do not believe that stopping or suspending work will result in fixes to the identified problem based on their previous experiences. Management within the safety organization estimates that safety representatives are responsible for approximately 70 percent of all stop work activities.

The PPPO investigation also indicated that internal PRS communications needs improvement, and cited examples indicating that: (1) PRS hourly employees do not get involved in work planning and developing the Activity Hazard Analysis (AHA), (2) that when employees do get involved in work planning they are not necessarily the employees assigned to perform the work, and (3) that the “plan of the day” process where pre-job briefings are conducted are ineffective at reinforcing ISMS functions on a daily basis. Neither this proposed corrective action, nor the corrective actions associated with work planning (i.e., with PPPO-02-209-10, item #4) address these PPPO concerns. Furthermore, during this review, the AHAs, and pre-job briefings for three work activities were observed (i.e., at the Smelter D&D, the C-400 Commissioning Project, and the discharge of water from the C-613 Northwest Storm Control basin) and similar concerns were identified. Workers interviewed did not recall being involved in the development of the work packages or AHAs that they were using, pre-job briefings did not sufficiently identify work steps and associated hazards, and the applicable sections of the AHA were not discussed. In one project (i.e., D&D Smelter), some controls identified in the AHA were unclear or could not be followed. PRS Safety Representatives indicated that for some work activities in which deadlines were imminent, that AHAs were prepared without direct involvement of workers or in some cases prepared by the Safety Representatives without a completely defined work scope. (Also see discussion in PPPO-02-209-10, item #3)

Although PPPO concern item #1 identifies issues with the resolution and communication of safety and employee concerns, the proposed corrective actions do not sufficiently address these concerns. For example, PRS' written procedure for the ECP outlines methods for filing a concern and establishes the expectations to resolve concerns at the lowest level possible, but lacks direction on methods for handling concerns and does not provide information to employees about the process for handling their concern and the information they would receive. Many of the employee concern closure files reviewed lacked documentation of the specific actions taken to address concerns raised. Documentation of communication back to the originator was often lacking and, when it did exist, was often a general description indicating that the concern was reviewed, management investigated the concern and has taken appropriate action, and the issue has been closed. Details of the investigation results or actions taken were normally not provided. In one case, a subcontractor concern alleging retaliation contained only the initial concern and a one sentence closure indicating that the Site Manager had spoken with the PPPO ECP Manager and resolved the concern. In another case, a concern alleging harassment by co-workers was evaluated by the supervisor, creating a potential conflict of interest.

Communication between PRS senior or line management and the workers is not always effective because feedback from workers is not adequately communicated or understood by PRS management. For example, HSS interviewed a group of new and more seasoned workers concerning issues with respect to work control and stop work authority; these workers identified several instances when they felt intimidated about stopping/suspending work or when supervisors or facility management did not permit them to stop work. When these concerns were discussed with management, the more senior managers were unaware of these concerns.

Recommendations: The following recommendations to improve PRS' communication with workers and front line managers should be considered:

- Develop mechanisms to more effectively communicate stop work expectations and stop work processes at the front line manager and worker level such as classroom training and through pre-job briefings. Line managers should routinely identify opportunities to discuss work concerns with the workers.
- Assess current field work practices with respect to development of work packages, development and use of AHAs, and pre-job briefings to ensure that PRS work planning procedures are being followed, particularly with respect to mission critical work activities.
- Revise the ECP Procedure to better define processes for handling concerns, establish recordkeeping requirements, and improve communication of status and results to originators. Ensure assignment of concern investigators is free of conflicts of interest.
- Communicate to front line managers and workers the results of safety work performance improvement initiatives (e.g., the mentoring program, Culture Survey, and ISMS re-verification) and actions being taken in response to these initiatives.

PPPO-02-209-10, Item #2

PRS needs to reaffirm the expectation that: (1) line organizations are responsible for safety and meeting the programmatic requirements; (2) safety and health professionals are key team

members; and, (3) both must be fully engaged in planning and implementation processes to ensure work is performed safely.

Assessment: The overall PPPO concern was that the roles of S&H professionals were not sufficiently defined and often misinterpreted as being “policemen,” and that line management’s role for safety and line management’s interface with the field S&H representatives was not reflective of line management’s assigned responsibility for safety. For this concern, PRS identified six corrective actions to address the following two broad issues:

- Clarify roles and responsibilities for safe work performance between Front Line and Safety organizations on all work groups.
- Improve structure and clarification of S&H roles and responsibilities.

Additionally, prior to the issuance of the final CAP, PRS completed four corrective actions involving hiring a new Industrial Safety and Hygiene Manager with experience in complex DOE work; having this new manager clarify and enforce roles and responsibilities between staff and management through routine meetings; having field safety representatives participate in daily work planning meetings; and instituting Conduct of Operations training for front line managers and Facility Managers. PRS also began implementation of an additional corrective action involving the clarification of roles and responsibilities for safe work performance for S&H staff and line management in Project Workers Health and Safety Plans (HASPs).

The proposed corrective actions, in combination with corrective actions that have already been implemented, should clarify the roles and responsibilities of the S&H representatives and reinforce line management’s responsibility for safety. However, the proposed implementing or sub corrective actions (i.e., those labeled as CA 7, CA8, CA9, CA 10, and CA11 in the CAP) may not be fully adequate to achieve these remaining two corrective actions.

For example, in order for line management to assume their responsibilities for S&H, PRS senior management must communicate their expectations that line managers are accountable for safety in both policy and practical terms. With the exception of the modification of performance measures and issuance of guidance for the S&H department manager, and a previously completed corrective action to develop a core set of PRS values that includes safety, there are no corrective actions to address the need for senior PRS management to directly communicate to line managers their responsibility and accountability for safety. Furthermore, additional training in roles and responsibilities would need to be provided to line managers, many of whom are new to management and/or to working at DOE sites. There are no corrective actions that address training of line managers with respect to their responsibilities for S&H, or that provides guidance on the interface between line managers and their assigned S&H representatives.

The PPPO Investigation also identified a concern that S&H resources were inadequate or inappropriately assigned. Although the PRS CAP addresses roles and responsibilities of the Safety Representatives, the CAP and the previously completed corrective actions do not address the adequacy or assignment of S&H resources.

Recommendations: The following recommendations to clarify the roles and responsibilities of line management and safety professionals should be considered:

- PRS senior management must be the champion for establishing and implementing policies to ensure line management is responsible for safety. Roles and responsibilities of line management for safety should be clearly defined and communicated by senior management. (Also see Recommendations under PPPO-02-209-10 item #5)
- Safety performance criteria, based on leading indicators adopted by PRS senior management, should be developed and used as part of performance evaluations of line managers.
- The adequacy and assignment of S&H resources should be reviewed considering the revised roles and responsibilities of the S&H representatives.
- Training should be developed and provided for line managers and S&H professionals to clearly delineate their roles and responsibilities and expectations (with practical examples) on how these roles and responsibilities will be implemented. Due to the limited time remaining on the contract, operator aids could be provided as an interim measure to ensure this information is quickly disseminated.
- Once the roles and responsibilities have been clarified and training has been provided, an assessment should be conducted to determine how effectively the roles and responsibilities of both line managers and field S&H representatives are understood and are being implemented.

PPPO-02-209-10, Item #3

PRS needs to reaffirm to all employees their rights and responsibilities associated with performing work safely, including proper implementation of stop work authority.

Assessment: This PPPO concern recognized that while the majority of PRS workers were aware of their stop work authority, and some had exercised this authority, there was an overall perception by the workforce of the willingness of PRS management to place an emphasis on production over stopping work activities and getting safety concerns addressed promptly. For this concern PRS identified the following three broad corrective actions:

- All-hands meeting to reaffirm employee rights and responsibilities.
- Provide positive recognition for identifying safety issues.
- Implement Human Performance Improvement (HPI).

Prior to the issuance of the final CAP, PRS completed one corrective action to provide PRS Human Performance Initiative training to all employees so they can recognize and react to error likely situations.

The proposed and completed corrective actions, while useful, may not be sufficient to ensure a consistent and practical understanding of the proper implementation of the stop work authority in the field. Although workers and front line managers have received instruction on the stop work policy, based on interviews, there remains a perception by some workers that: (1) there will be reprisals if work is stopped that could result in a delay in meeting key production milestones and (2) there is no point in stopping work because management is unlikely to adequately resolve the issue(s) that resulted in the stop work. On the other hand, there have

been a number of worker initiated stop work actions, three of which, for example, occurred on one day during this review. This issue is similar to PPPO-02-209-10, item #1 with respect to the stop work concern.

With respect to the proposed corrective actions, the use of “all-hands” meetings to address each employee’s rights and responsibilities to perform work safely (#CA12) is a potentially effective strategy. Based on the recent “all-hands” meeting conducted and attended by the review team, the meeting was well received by workers. Furthermore, the development of a safety incentive program for individual spot awards (#CA13) also has merit. However, there are no provisions for ongoing training and dialog at the worker/ supervisor level on the use and implementation of a worker’s stop work authority, as previously discussed in PPPO-02-209-10, item #1.

Recommendations: The following recommendations to reaffirm worker rights and responsibilities, and those provided in response to PPPO-02-209-10, item #1 should be considered:

- Training (or re-training) should be provided to workers on their stop work authority and responsibility and when and how stop work should be exercised, with practical examples. Similar training should be provided to front line managers with a focus on line management’s exercise of stop work authority. Such training should incorporate the error precursor identification training recently received through the HPI training.
- Line managers should routinely provide opportunities to discuss stop/suspend work responsibilities and stop work mechanisms with workers. Examples of when to stop/suspend work, and the impact of work stoppages on production, should also be discussed.
- When a work stoppage occurs, workers should be provided with a timely response from management regarding actions taken to resolve issues prior to resuming work.

PPPO-02-209-10, Item #4

PRS needs to commit to improving work planning processes to more effectively utilize worker and subject matter expertise in developing work plans.

Assessment: This PPPO concern was based on indications that PRS hourly employees do not get involved in work planning and in the development of the AHA for the work being performed. In addition PPPO noted that the “plan of the day” process where pre-job briefings are conducted is ineffective in reinforcing ISMS functions on a daily basis. Also, the role of subject matter expert for S&H professionals is not always appropriately implemented. For this concern, PRS identified the following two broad corrective actions:

- Formalize involvement of planned craft mix, the FLS, and field safety representatives in early work planning stages and pre-job walkdowns.
- Use mock-up training to teach workers about hazards and controls.

Additionally, prior to the issuance of the final CAP PRS, completed five corrective actions involving the development of a mandatory template for pre-job briefs, establishing a work week management system; conducting Plan of the Day coordination meetings that involve all support organizations, updating the Quality Assurance Program to incorporate lessons learned in work

planning and integration; and integrating mentors into key management functions. Limited observations of the impact of several of these corrective actions on work activities indicated improvement in the work control process, although additional focus was needed on consistently effective implementation of the improved processes. For example, the template for pre-job briefs was a significant improvement, but was not being consistently used in the field or used as designed. Lessons learned were identified in field work packages, but methods for communicating these lessons learned to workers were not sufficiently defined. Safety representatives were only present for two of the three pre-job briefings attended by the HSS team during the week of this visit.

Based on field observations of three work activities during this review and interviews with workers, front line managers and Safety Representatives, the concerns identified by PPPO were validated. With respect to the proposed corrective actions for improvements to the PRS work planning process, the PRS Work Control Manager was not involved in the development of the corrective actions. Therefore, several of the proposed corrective actions may not be needed since the current work planning process already has addressed the corrective action, or the corrective action if implemented verbatim, and without explanation, may be counter-productive. For example, #CA22 requires a revision to the PRS Work Planning procedure to walk down each job using the planned craft mix, FLS, S&H representative, and RADCON personnel, as appropriate. However, the current work planning procedure already addresses this requirement and therefore the benefit of the corrective action on item is not clear. Furthermore, the walkdown process envisioned for this corrective action, if implemented for low risk minor maintenance work activities, may be burdensome and unnecessary. The current work planning procedure requires that the rigor of the pre-job walkdown be commensurate with the risk and complexity of the task, which is not addressed in this corrective action.

Of concern, is that there are a number of work planning and control issues identified by PPPO or in this review that are not addressed in either the completed or proposed corrective actions (also see PPPO-02-209-10, item #1). For example:

- As a result of production and schedule pressures, routinely there are work-arounds to the PRS work control procedures. For example, AHAs are often prepared by only the S&H representative without worker or line management involvement and contrary to PRS procedures. In some cases, the AHAs are prepared prior to finalization of the work scope.
- The three pre-job briefings observed by the HSS team did not follow the expectation of the PRS procedures on pre-job briefings, and did not adequately review the shift work activities and related hazards and controls with reference to the AHA.
- In some cases, it was difficult for line managers and/or the Safety Representative to identify the appropriate AHA or AHA section(s) that were applicable to the day's activities.
- In several of the AHAs, the hazard controls were unclear or could not be identified for the specified hazard.

Recommendations: The following recommendations to improve PRS' work planning and control processes should be considered:

- The proposed corrective actions should be critically reviewed by the PRS Work Planning Manager to revise, as appropriate, to address the work planning and control issues identified in the PPPO investigation.

- An evaluation/ assessment of work planning procedure work-arounds should be conducted to determine the root causes of these work-arounds and potential risks to safety.
- Existing AHAs should be reviewed by workers, line managers and Safety Reps for accuracy, completeness, and the ability of a worker to identify and implement the appropriate control for a specified hazard.

PPPO-02-209-10, Item #5

PRS' new management needs to effectively communicate their commitment that all work must be performed safely.

Assessment: The PPPO investigation report noted that many of the negative perceptions were associated with the previous senior management team and that, although the new managers would need to address these perception issues, they were not the source of the negative perception. At the time of that investigation, many of these managers had been in those positions for a short period. However, during discussions held with workers and other employees during this review several months after the investigation, many of these same negative perceptions remain. In a few examples, some employees indicated that they felt that actions by current members of senior management to meet performance schedules directly contributed to a culture where safety considerations are given a lesser priority. A concern was also raised that several of the monthly safety committee meetings were recently cancelled due to work schedule demands and unavailability of key management participants. For this item, PRS did not identify any unique corrective actions, instead referencing actions undertaken in response to PPPO-02-209-10 items #1-3.

Recommendations: The following recommendation to communicate PRS managements' commitment that all work must be performed safely should be considered:

- Senior managers should routinely emphasize that performing work safely is a minimum requirement for all projects and activities.
- Senior managers should hold line management accountable in situations where worker safety is compromised or safety procedures are bypassed, regardless of performance outcome.
- Senior managers should attend and visibly support safety committee activities.

PPPO-02-209-10, Item #6

In addition to “talking the talk”, PRS' new management needs to “walk the walk” by improving their presence and interaction at the work locations.

Assessment: PRS has initiated action to transfer managers with line responsibility from offsite locations in Kevil, KY to onsite office space. In addition, PRS is revising the institutional procedure and establishing performance goals to enhance its “management by walking around” initiative. However, there is a significant level of concern by some workers and safety personnel that PRS management's focus on productivity and meeting schedule commitments over ensuring that work is performed safely. This perception has a direct impact on some

employees' willingness to exercise certain rights, such as initiating a work pause or stop work, when uncontrolled hazards are identified.

Recommendations: The following recommendations to improve PRS' management presence, interaction, and effectiveness at work locations should be considered:

- Ensure managers, including those in functions that provide direct support in the field, meet the necessary qualifications (training, certification, clearance, etc.) to visit the locations where work is performed.
- Provide safety management training and mentoring to managers to facilitate effective oversight of activities.
- Establish safety performance objectives for managers consistent with leading indicators established under item#1 recommendations.

PPPO-02-209-10, Item #7

DOE needs to evaluate the current employee concern program process to identify improvements in issue resolution.

Assessment: The PPPO employee concern program currently uses the Environmental Management Consolidated Business Center Employee Concerns Program (EMCBC PD-311-05, rev 1, dated July 26, 2006) for operating the ECP. PPPO has recently developed a draft procedure for the employee concern program, which is currently under review. The draft procedure clarifies roles and responsibilities and outlines the basic process for receiving, investigating, and communicating results to the originator.

A limited review of a sample of employee concerns indicated that reasonable efforts are made to understand the concern and involve appropriate PPPO personnel to investigate the concerns. Expectations for timely communication of interim status and final resolution to concern originators are not formally defined in either the EMCBC or draft PPPO procedure. In some cases, such as the August 2009 lighting concern and the September 2009 safety culture concern, the interim status and final resolution have not been formally communicated to the concern originators. In both cases, correspondence outlining the final concern resolution has been drafted but has not been finalized.

In some cases, when an employee indicates that they have not first taken the concern through the PRS ECP process, the PPPO ECP Manager assigns the PRS ECP to resolve the concern. This action goes beyond the DOE Order 442.1A requirement to “*encourage* employees to seek resolution through the first line supervisor or the contractor ECP [*emphasis added*].” Given that some employees believe that raising safety concerns that impact work schedules could result in retaliation against them, they may purposefully chose to by-pass the contractor ECP program, and therefore this PPPO practice may discourage employees from raising a concern through the PPPO ECP.

Recommendations: The following recommendations to enhance the PPPO EPC should be considered:

- Establish and implement criteria for determining situations where it is appropriate for PPPO to directly investigate employee concerns and where it is appropriate to refer them to the PRS EPC.
- Establish and implement steps for processing employee concerns. Address issues such as bounding the scope of the concern, timeliness guidelines, specific process flows for concern disposition by type of concern (safety, imminent danger, fraud, reprisal, harassment, etc.), and restrictions on investigator assignment to avoid conflicts of interest.
- Identify one or more DOE ECPs for benchmarking and providing lessons learned.
- Communicate program changes to PPPO staff and contractor/subcontractor personnel.
- Assess effectiveness of program changes. Include assessor(s) external to PPPO, such as ECP program managers from other sites or subject matter experts from headquarters.

CONCLUSIONS:

PRS has initiated actions on the six issues identified in the November 24, 2009 employee concern investigation report and, in some cases, has completed them. However, additional actions will be needed to address the issues raised by the employee concerns. Based on observations and interviews conducted during this review, HSS has provided specific recommendations for additional actions, including actions that could improve safety-related communication to workers and enhance the roles and responsibilities of line and S&H professionals.

In response to the seventh employee concern investigation report issue, PPPO has developed a draft procedure to formalize its employee concerns program. HSS has identified several recommendations for further enhancing this draft procedure and facilitating implementation of program revisions.

The HSS recommendations are provided for EM, PPPO, and PRS for their consideration. EM, PPPO, and PRS should evaluate the HSS recommendations, recognizing that they may identify alternative methods for strengthening their programs.