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February 27, 2009

Mr. Samuel J. Collins  
Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
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**SUSQUEHANNA STEAM ELECTRIC STATION  
NRC REQUEST TO ADDRESS WORK ENVIRONMENT ISSUES  
AT SUSQUEHANNA STEAM ELECTRIC STATION  
PLA-6486**

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**Docket Nos. 50-387  
and 50-388**

This letter provides PPL's response to your letter dated January 28, 2009. It includes PPL's plans to address existing safety conscious work environment (SCWE) concerns to preclude a chilled work environment at Susquehanna Steam Electric Station (SSES); PPL's plans for further evaluating the health of the SCWE at SSES; and the metrics PPL intends to monitor to determine the effectiveness of our actions and ensure a safety conscious work environment at the site.

PPL is committed to ensuring that we have a positive safety conscious work environment at Susquehanna. Over the past seven months, we have made a number of changes to enhance communications, strengthen the relationship between station leadership and the workforce, and ensure maintaining a strong safety culture. Details of the actions we have taken and our continuing plans to address work environment issues are outlined in this letter. We will continue to dedicate all the resources necessary to maintain a strong safety culture.

In 2008, Susquehanna and its employees celebrated 25 years of safe and reliable operation of Unit 1. Susquehanna employees take pride in the work they perform to safely operate and maintain the plant. At the time of the 25<sup>th</sup> anniversary celebration in September 2008, the two units at SSES had generated more than 338 billion kilowatt-hours of affordable and reliable electricity for the people of northeastern Pennsylvania. Since then, we also have surpassed the previous record continuous run on Unit 2, which currently has been safely operating for more than 684 days, since its last refueling outage in Spring 2007. This can be attributed to the strong work ethic of the station's skilled and dedicated workforce, a workforce that also has achieved designation of the station as a "Star" site in the Occupational Safety and Health Administration's Voluntary Protection Program in recognition of their industrial safety efforts.

Over the past several years, PPL has invested in the material condition of the plant. We have undertaken several major projects, including replacement of the Unit 1 steam dryer and high-pressure turbine, to maintain and upgrade the plant so that it can continue to provide a safe, reliable source of electricity for our region for years to come.

At the same time that these projects were under way, many organizational and operational changes occurred that affected the SSES workforce. In several cases, the changes led to an erosion of workforce trust in the station leadership team. This became evident in 2008 with an increased number of concerns expressed to the NRC. Further background and an outline of PPL's efforts to address these work environment issues are detailed below.

### **Background**

Between 2002 and the end of 2006, SSES measured an improving or consistent SCWE. During the early part of this period, PPL invested heavily in improving the station culture by enhancing communications and engagement with the general work force. This also included extensive efforts to build leadership capacity in the station management team and teamwork in the station workforce. Station leadership changes since 2004 resulted in a focus on improving core competencies, improving work force accountabilities and implementing industry best practices.

In late 2006, PPL completed a full-scope work environment survey by an independent third party that concluded Susquehanna had a strong Nuclear Safety Culture and continued to make progress in improving the overall organizational culture, work environment and leadership team. Susquehanna Nuclear Safety Culture and General Culture and Work Environment were ranked in the first quartile of the nuclear industry. Leadership, Management and Supervisory skills and practices were ranked in the second quartile. The survey indicated opportunities existed to continue the improvement through focused efforts in Maintenance and Health Physics. PPL developed action plans and implemented corrective actions through 2007 to address the identified work environment issues.

The NRC performed independent inspections throughout 2007, which indicated that the actions to address work environment issues appeared appropriate. The NRC annual allegation program trend reports noted some improvement in the work environment through 2006 and 2007.

In early 2008, several leadership decisions impacting compensation practices and work schedules were implemented with a less than effective change management process. This adversely affected the workforce perception of the leadership team.

At that time, communications to the work force regarding changes to the implementation of event and accountability review boards were less than adequate. As a result, the general workforce perception of the boards varied widely. While these boards had been

a valuable tool at other utilities, the lack of good change management resulted in concerns among the workforce.

To address the decline in the general work environment and a lack of workforce trust in the leadership team, an improvement plan was created in August 2008. Initial corrective actions were focused in three areas: change management, communications, and the relationship of senior management to the workforce. Assessments of the work environment were completed in the months that followed. The assessments indicated that employees will raise nuclear safety concerns and do not hesitate to utilize the various avenues for raising those concerns, including allegations. However, those assessments did confirm that the changes noted above had adversely affected the work environment. Trust between the work force and leadership had eroded, leading to a decline in teamwork and effective communications.

### **PPL Plans to Preclude a Chilled Work Environment**

As noted in NRC's January 28, 2009, letter, PPL has taken actions to improve the work environment and the relationship between the leadership team and workforce. A summary of these actions follows.

#### **Change Management**

SSES benchmarked industry change management practices and used this information to develop a procedure that incorporates a graded approach to Change Management. This revised process incorporates additional management oversight for changes that could have a significant effect on the workforce. This practice has been used successfully. An example is the change plan currently being implemented to transition to the new regulation related to worker fatigue and fitness for duty. This was developed with input from numerous station organizations, including the bargaining unit.

#### **Communications**

Several initiatives have been implemented to improve communications between the station leadership team and the workforce. These include meetings between management and bargaining unit stewards in maintenance, operations and health physics; increased face-to-face communications between the leadership team and the workforce via all hands meetings, SCWE review meetings and other key activity rollouts; feedback and dialogue meetings with the workforce; increased electronic communications to station personnel via Focus and Grapevine articles; and highly visible communication centers established in areas where people gather to provide reinforcement of key communications.

### **Enhanced Alternate Concern Resolution Process**

An alternate employee concern resolution option was created by establishing an Ombuds position at SSES. The primary goal of the Ombuds position is to resolve concerns at an early stage and to approach work-related conflicts constructively without resorting to more formal dispute mechanisms. Based on the number of contacts made with the Ombuds since the position was established in July 2008, we have concluded that it is an effective alternate means of resolution of employee concerns.

The Employee Concerns Program (ECP) representative has established an office at SSES to increase visibility and availability. This office is in addition to the existing office located in Allentown.

### **Work Environment Assessments and Benchmarking**

Work environment assessments have been conducted to determine if the actions taken and planned would help to resolve the issues. Benchmarking has been performed to determine how similar issues were resolved at other facilities. These activities included: a safety conscious work environment survey performed by an independent outside consultant; activities facilitated by an independent third-party consultant with operations, maintenance, and health physics personnel to ensure we understood their issues; benchmarking of a number of nuclear facilities to obtain best practices on addressing and maintaining a healthy work environment; a root cause analysis of the work environment issues; and assessment of the roles and responsibilities of the work environment oversight function.

### **Corrective Action Program Enhancements**

Work environment trend codes were developed and are being applied to issues identified in the Corrective Action Program. These codes allow tracking, trending and analysis of issues related to the work environment and safety culture.

The benefits of using the Corrective Action Program to identify, elevate and resolve issues have been communicated to the workforce via Focus articles, meetings and audio messages in the South Gate House entrance portals.

### **Equipment Reliability**

Susquehanna maintains a station health evaluation and equipment reliability process that focuses on the health of programs, systems, structures and components important to plant safety and critical equipment reliability. Issues related to non-critical support equipment such as non-safety related plant cranes, general area lighting, or station elevators are not within the scope of the station health process. However, these types of issues are important to the work environment and have not always been resolved in a manner acceptable to the workforce. To address this, a plant focus list has been

developed. The plant focus list is designed so that various site organizations select the initiatives to ensure work environment improvements are visible and addressed.

### **Training**

Safety Culture and Work Environment Refresher Training has been provided to managers and supervisors to address their role in the work environment and their responsibility in the resolution of employee issues and concerns. The training reinforces the expectation that safety will never be compromised for production.

### **Process Changes**

The event review board and accountability review boards are no longer being used and are being replaced with an assessment process and a discipline review panel. The call-off sick practice that was used during the 2008 refueling outage will not be implemented again. In addition, the station began working with bargaining unit leadership to satisfactorily address how scheduled time-off (ST) days would be handled in the upcoming 2009 planned outage. Modifications also were being considered to certain compensation practices that adversely affected the first line supervisors. As noted later in this letter, several of these issues have since been resolved.

### **Workforce Recognition**

A renewed emphasis has been placed on recognizing workforce achievements.

A celebration of SSES's 25<sup>th</sup> anniversary was held in September 2008 under the theme, "Susquehanna Nuclear Professionals Safely Producing Electricity for 25 Years."

On February 19, 2009, SSES Unit 2 exceeded its previous continuous-run record. Various recognition events were held for employees to celebrate this achievement.

A celebration also was held to commend design engineering, plant modification and electrical maintenance employees involved in the installation of a new stair landing. The employees were recognized for raising this personnel safety concern and for completing this work in a safe and timely manner.

Upon receipt of the January 28, 2009, NRC letter, PPL has initiated a number of additional actions.

### **Work Environment Team**

To emphasize PPL's commitment to addressing the issues, a work environment team, led by a vice president independent of the station, has been formed reporting to the chief nuclear officer. Located in a conference room in a high-traffic area of the station's main administration building, the team is dedicated full-time to this effort. This has been

received enthusiastically by station personnel who have been dropping by to share their experiences with work environment issues. The team also has consulted with industry oversight organizations to tap prior experience with similar work environment issues. The team also has reviewed the earlier action plans and root cause analysis.

### **Independent Organizational Improvement Oversight Panel**

An independent Organizational Improvement Oversight Panel has been formed, reporting to the chief nuclear officer. The Panel will independently assess the scope, implementation, and effectiveness of actions being taken to improve the organizational effectiveness of SSES. The members are a former PPL chief nuclear officer, a former NRC regional administrator, a consultant who is chairman of the Susquehanna Review Committee, and the PPL vice president of human resources.

### **PPL Practices and Processes**

Two of the practices that negatively impacted the work environment in early 2008 have been revised and communicated to the workforce. The scheduled time-off practice delineates how it is to be implemented for outage and non-outage periods. The first-line supervisor overtime pay practice is now consistent throughout PPL. As noted earlier, resolution of these issues was in process well before the NRC letter, but was just recently rolled out to the station.

In order to enhance the ability of the workforce to identify concerns, a new process that allows the creation of anonymous condition reports has been implemented and communicated to the workforce.

### **Leadership Development**

PPL has contracted with a nationally recognized executive development firm to implement a leadership development program that embodies the following elements:

- Assessments of each leadership team member, both as an individual contributor and team member.
- Creation of development plans and coaching based on the assessments.
- Panel assessments of the management personnel below the leadership team with a focus on Operations, Health Physics and Maintenance.
- Leadership team-building efforts.
- A standard approach to integration of new leaders.

The focus of leadership development will be based primarily upon leadership expectations and attributes using the Institute of Nuclear Power Operations (INPO) "Leadership Fundamentals to Achieve and Sustain Excellent Station Performance." The focus areas:

- Core Values
- Vision and Plan for Excellence
- Effective Leadership Team
- Engaged Employees
- Healthy Accountability
- Effective Processes and Structures

Further efforts will serve to reinforce leadership expectations based on the INPO "Principles for a Strong Nuclear Safety Culture."

- Everyone is personally responsible for nuclear safety
- Leaders demonstrate commitment to safety
- Trust permeates the organization
- Decision making reflects safety first
- Nuclear technology is recognized as special and unique
- A questioning attitude is cultivated
- Organizational learning is embraced
- Nuclear safety undergoes constant examination

The SSES leadership team is initiating actions to accelerate the progress of the actions to improve the work environment.

Mid-level managers who have previously held operating licenses at SSES will engage the Control Room personnel periodically to ensure regular dialogue occurs between management and operations personnel. This will provide an additional avenue to ensure issues are being proactively addressed and timely feedback is provided.

The importance of having station leaders address opening sessions of training courses is being re-emphasized. Those leaders will reinforce the station values and expectations regarding nuclear safety and a constructive work culture.

Leadership team members will devote more time to tour plant areas where work is being performed to engage the workforce and assist in identification and resolution of issues. Issues identified will be reviewed to determine priority and resolution plans. Timely feedback will be provided to the appropriate personnel.

Periodic meetings between bargaining unit leadership and the senior management team are an important element to improve communications, alignment and enhance the issue

resolution process. This will be incorporated in assessing performance of leaders going forward.

Second-line supervisor meetings will be conducted on a more routine basis. The purpose of the meetings is threefold: First, to promote alignment at the facility. The vice president nuclear operations will utilize this opportunity to provide organizational focus areas to a broad population of second lines in a direct and interactive environment. Second, to provide a feedback opportunity to the leadership team for a critical level of leadership. Third, to provide a routine forum for second-line supervisors to work together in a collaborative environment to address issues important to the working level.

### **Other Activities**

The status of work environment trends and the status of the work environment initiatives will be communicated regularly to the workforce.

A daily Management Review Committee (MRC) will be established. This committee will screen Corrective Action Program issues as potential work environment issues and will assess the health of the Corrective Action Program. The committee will provide timely management input and oversight of work environment issues and the relevant corrective actions.

A panel is being established to ensure fairness and consistency of employee discipline. The panel will consist of the chief nuclear officer, the vice president of nuclear operations, and the director of human resources - Susquehanna.

A toll-free telephone hotline service, provided by a third-party vendor, is being established that will allow the workforce to confidentially and anonymously report and receive responses to concerns. This will be in addition to the Company's existing ethics hotline.

### **PPL plans for further evaluating the health of the work environment**

Focus group interviews by the independent Organizational Improvement Oversight Panel will be performed with the maintenance, operations and health physics organizations.

A full-scope work environment survey by an independent third party will be performed once the revised plan has had time to have an impact on the work environment.

The quality assurance organization (QA) will incorporate data gathering and analysis regarding nuclear safety culture and SCWE into its assessment and audit activities. QA will modify templates for both types of activities to include a "generic element" to interview personnel with regard to safety culture, SCWE, and general work environment. These interviews will include specific questions derived from industry guidance (INPO Principles for a Strong Nuclear Safety Culture, NRC documents RIS

2005-18 and 2006-13) and ongoing benchmarking of other utility QA programs. The analysis of the responses will be performed via tools such as that developed by the Utility Service Alliance for use during its Safety Culture Assessments of members. A periodic summary of the results will be included in the routine Station Summary Reports issued by QA and will be provided to the work environment oversight committee.

As described below, a work environment oversight committee will review metrics to assess the health of the work environment.

### **Metrics to be used to monitor effectiveness of our actions**

SCWE indicators will be created and grouped to allow assessment of each of the four pillars of SCWE. We also will use metrics to assess the general work environment (GWE) that are based on the types of issues that have been identified through diagnostics completed thus far.

The set of indicators will be assessed by the work environment oversight team. The assessment will result, as necessary, in recommendations for chief nuclear officer and leadership team action.

The final set of SCWE and GWE metrics will be provided to the NRC for review and comment along with a final schedule for implementation.

A description of the metrics to be evaluated for each group is as follows:

#### **Workforce willingness to raise concerns**

This includes trends associated with use of the Corrective Action Program, use of the Employee Concerns Program, and perspectives provided by internal and external assessments and oversight committees.

#### **Management effectiveness at resolving concerns**

This includes trends associated with resolution of Corrective Action Program issues, resolution of issues identified to the Employee Concerns Program, and perspectives provided by internal and external assessments and oversight committees.

#### **Effectiveness of the alternate resolution processes**

This includes trends associated with NRC allegations, anonymous condition reports, concern hotline issues, bargaining unit grievances, and perspectives provided by internal and external assessments and oversight committees.

#### **Management effectiveness at detecting and preventing retaliation**

This includes trends associated with issues identified in NRC allegations, issues identified to the Employee Concerns Program, issues identified to human resources, issues identified via the bargaining unit grievance process, anonymous condition reports, and perspectives provided by internal and external assessments and oversight committees.

### **General work environment**

This includes trends associated with change management, communications, workforce relationship issues, resource concerns, proposed workforce discipline actions and perspectives provided by internal and external assessments and oversight committees.

### **Conclusion**

In conclusion, the actions we have described, many of which already have been taken or are being initiated, focus on constructive leadership, improved relationships with the workforce, increasing confidence in our commitment to a SCWE, enhancing the Corrective Action Program, change management, communications, and enhancing the confidence of our employees in the ability to effectively raise and resolve concerns.

We plan to further engage the SSES workforce. We are expanding the work environment team by adding bargaining unit and first-line supervision representatives. The expanded team will revisit the root cause to further identify underlying issues and additional areas for improvement.

PPL will provide supplemental information, including specific milestones, final metrics, and additional actions that may be warranted as our ongoing analyses dictate. As such, our work environment improvement plan will continue to evolve as we incorporate these additional diagnostic activities, and learn from actions underway or undertaken in the future.

PPL understands and values a healthy nuclear safety culture and has ongoing actions to reinforce these values. We will continue to operate both Susquehanna units safely, and we are committed to addressing our work environment issues by following, monitoring and continually evaluating and updating this action plan. We view this as a “living” plan that will be adjusted based on what is learned as we move forward. The day-to-day active management, monitoring and support of a strong nuclear safety culture and the implementation of this plan are strategies to ensure the long-term sustainability of our strong nuclear safety culture at Susquehanna.

The actions outlined in this letter do not meet the criteria as new regulatory commitments. As such, there are no regulatory commitments contained in this letter. However, PPL fully intends to implement the actions outlined in this letter. PPL will use its Corrective Action Program and the additional metrics outlined in this letter to track and complete these actions.

We would be pleased to meet with you or have you visit us at PPL to review our efforts to address these work environment issues. If you have any questions or need further information, please call Mr. Terry Harpster at 570-220-7478.

A handwritten signature in black ink, appearing to read "William H. Spence". The signature is written in a cursive style with a long horizontal line extending to the right.

William H. Spence

Copy: Mr. Fred Jaxheimer, NRC Sr. Resident Inspector  
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