#### Statement for the Record and Additional Information

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### **Defense Nuclear Facilities Safety Board**

### Public Hearing; August 26, 2015

# Improving Safety Culture at the Waste Treatment & Immobilization Plant (WTP)

## Statement for the Record

As a follow-up to the Public Hearing, the following statement for the record by Mr. Podonsky is provided to the Board:

"The Department's actions taken in response to Recommendation 2011-1 have significantly increased awareness and discussion on safety culture throughout the complex. For the WTP project, the most recent assessment indicated a positive turn in the safety culture. However, much work remains to instill in all managers that developing and sustaining a positive organizational culture is not a sideline activity; it is a central tenet of management responsibility and accountability.

Achieving meaningful improvement will require sustained effort by both our Federal and contractor partner leadership and development of clear and succinct expectations. Leadership will need to clearly articulate expectations, reinforce the expectations by example, and provide managers and staff with the requisite skills to fulfill the expectations. It will be important to keep in mind that, the focus needs to be on people, not policies, processes, and procedures. Although challenging, changing beliefs and assumptions throughout the organizations to support the desired behaviors is the goal.

As our assessments of safety culture indicate, management often has a more positive outlook on the state of the safety culture than do the workers. Because of this, the involvement of workers in the journey towards a more healthy safety culture is essential. This includes obtaining their insights during any future public meetings that you may hold to maintain focus on this important effort."

# **Additional Information**

In response to the questions and dialogue with Board members during the Public Hearing, the following additional information is provided for the record:

Vice Chairman Roberson asked about EA's introduction of the phrases "avoidance behavior" and "affiliative behavior" in the June 2015 EA report. As in past assessments, the EA team used five methods in the 2015 safety culture assessment to collect information on the organizational behaviors associated with the safety culture traits:

• Functional analysis

- Structured interviews and focus groups
- Behavioral observations
- Behavioral Anchored Rating Scales (BARS)
- Organizational and Safety Culture Survey.

The first three methods are sources of qualitative data, and the last two provide quantitative sources to compliment the data gleaned from the qualitative methods. The convergence of data from all five diverse methods results in highly reliable conclusions.

In previous EA safety culture assessments, various stakeholders have asked numerous questions regarding the data supporting the report conclusions. Although the overall analysis methodology did not change, EA included more explanation of the data collection methods and more specific quantitative data in the 2015 assessment in response to these questions, particularly in regards to the survey. As in surveys used for the previous assessments, the 2015 survey consisted primarily of an Organizational Culture Inventory (OCI) supplemented with additional tailored, safety-specific questions. The OCI has been in constant use and periodic re-validation for some 40 years and is reputed to be the most widely used and thoroughly-researched tool for measuring organizational culture in the world. EA elaborated on the 2015 results with respect to the OCI beyond the discussions in previous assessments.

The Organizational Culture Inventory measures twelve behavioral norms that are grouped into three general types of cultures:

- Constructive cultures, in which members are encouraged to interact with people and approach tasks in ways that help them meet their higher-order satisfaction needs.
- Passive/defensive cultures, in which members believe they must interact with people in ways that will not threaten their own security.
- Aggressive/defensive cultures, in which members are expected to approach tasks in forceful ways to protect their status and security.

As this OCI is a standard industry tool for quantitative measurement of organizational culture, the 2015 report did not go into detail on the tool. However, to more completely address Vice Chairman Roberson's specific questions, "avoidance behavior" is one of the four behavioral norms within a passive/defensive culture. Avoidance behavior characterizes organizations that fail to reward success but nevertheless punish mistakes. This negative reward system leads members to shift responsibilities to others and to avoid any possibility of being blamed for a mistake. Members are unwilling to make decisions, take action, or accept risks. It indicates that people feel threatened and vulnerable in their work environment.

"Affiliative behavior" is one of the four behavioral norms within a constructive culture. Affiliative behavior places a high priority on positive interpersonal relationships. Affiliative behavior can enhance organizational performance by promoting open communication, good cooperation, and the effective coordination of activities. As task interdependence and teamwork become more important, coordination and open communication become increasingly important to organizational effectiveness. Affiliative behavior encourages honesty and commitment in communications and actions.

With regard to enforcement authority for subcontractors, in general, DOE holds its prime contractors and their subcontractors responsible for safety and security at their respective sites of employment. DOE may issue a Notice of Violation (NOV) to the prime contractor for violations associated with their role in an event involving a regulatory violation by a subcontractor, if deemed appropriate. However, depending

upon the circumstances, an enforcement proceeding may also be initiated against a subcontractor or supplier, either alone or in addition to that involving the prime contractor.

For nuclear safety issues, civil penalties may be levied against any indemnified contractor (and any subcontractor or supplier to a DOE indemnified contractor) pursuant to 10 C.F.R. Section 820.20, Purpose and Scope, subsection (b) and as addressed in the enforcement policy, Appendix A of Part 820. Nuclear safety requirements in Parts 820, 830, and 835, apply directly to these indemnified subcontractors and suppliers. A civil penalty levied under Part 820 is independent of and may be in addition to any contract action taken by the cognizant DOE contracting officer.

In the worker safety and health and classified information security enforcement areas, Parts 851 and 824 apply directly to DOE contractors, and their subcontractors, with responsibilities for performing work at a DOE site in furtherance of a DOE mission, subject to certain exclusions. DOE may issue an NOV to a contractor or subcontractor for violating a Part 851 or Part 824 requirement (reference 10 C.F.R. Sections 851.5(a) and 824.2(a), respectively). Part 851 permits DOE to impose either a civil penalty or contract fee reduction (not both) on an indemnified contractor, as well as a civil penalty for subcontractors at any tier, subject to limitations specified under 10 C.F.R. Section 851.5. Like Part 820, Part 824 permits imposing both a civil penalty and contract fee reduction.