Office of Enforcement and Oversight

Assessment of the Nuclear Safety Culture and Management of Nuclear Safety Concerns at the Hanford Waste Treatment and Immobilization Plant – January 2012

Briefing

Scope

- ➤ **Office of River Protection (ORP) Nuclear Safety Culture**

- ➤ **Bechtel National, Inc. (BNI) Nuclear Safety Culture**

- ➤ **Corrective Actions to the 2010 Office of Health, Safety and Security (HSS) Report**

Safety Culture Assessment

Method

➢ **Used Nuclear Regulatory Commission Methodology**

➢ **Objective and systematic measurement of the organizational behaviors**
  - **Surveys**
  - **Focus groups**
  - **Standard interview protocols**

Safety Culture Assessment

Method

➢ **Data Collection Conducted**
- **Documents**
- **Structured Focus Group/Individual Interviews**
- **Behavioral Anchored Rating Scales (BARS)**
- **Behavioral Observations and Checklists**
- **Safety Culture Surveys (BNI and ORP)**

➢ **Data Convergence Evaluated**

Safety Culture Assessment

Method

➢ **Evaluate to Nine NRC Safety Culture Traits**

- **Leadership Safety Values and Actions**
- **Problem Identification and Resolution**
- **Personal Accountability**
- **Work Processes**
- **Continuous Learning**
- **Effective Safety Communication**
- **Environment for Raising Concerns**
- **Respectful Work Environment**
- **Questioning Attitude**

Safety Culture Perspectives

ORP

- ➢ **Safety Conscious Work Environment**
  - • **No Fear of Retaliation**
  - • **Not Conducive to raising concerns**

- ➢ **Lack of Senior Management Engagement**

- ➢ **Poor communication, coordination and cohesiveness between ORP and DOE-WTP**

BNI

➢ **Safety Conscious Work Environment**
   • **Reluctance to raise safety concerns in many groups**
   • **Fear of retaliation in some groups**

➢ **Inconsistency in the behavior of supervisors and managers**

➢ **Lost trust with employees and stakeholders**

➢ **Significant cultural differences between groups**

Safety Culture Perspectives

- ➢ **Tension between E&NS and Engineering**

- ➢ **Construction Schedule Pressures**

Safety Culture Perspectives

BNI HSS 2010 Report Corrective Actions Review

➢ **Issues Management**
- **Improvements and remaining concerns**

➢ **Safety Culture Improvement Efforts**
- **Communications**
- **Training**
- **Broad based effort**

Conclusion

➢ **There is a reluctance to raise safety concerns at ORP and BNI.**

➢ **The approach to safety and safety culture is highly proceduralized across WTP and not yet internalized.**

➢ **WTP managers do not have a full appreciation for the current culture or the level of effort needed to foster a healthy safety culture.**

Recommendations

- ➢ **Establish Safety Culture Competence**
  - • **Core Values**
  - • **Accountability**
  - • **Employee Engagement**
  - • **Behavior Science Expertise**
  - • **Monitoring**
  - • **Change Management**

Recommendations

➢ **Integrated Safety Management Processes**
- **ORP Responsibilities and Expectations**
- **Design and Safety Basis Process**
- **Construction Craft**
- **BNI Corrective Actions Process**