

Award Fee Determination Scorecard

Contractor: Bechtel National, Inc. (BNI)
Contract: Design, Construction, and Commissioning of the Hanford Tank Waste Treatment and Immobilization Plant
Contract Number: DE-AC27-01RV14136
Award Fee Period: January 1, 2016, to December 31, 2016
Basis of Evaluation: 2016 Performance Evaluation and Measurement Plan
Award Fee Available: \$10,200,000
Award Fee Earned: \$7,242,000 (71.0 percent)

Incentive B.1 – Award Fee-Project Management – Good

The fee for Project Management is divided into six award fee objectives (AFO) as follows:

	<u>Available</u>	<u>Rating</u>	<u>Earned</u>
AFO 2: One System	\$485,000	97.4%*	\$472,400
AFO 3: Environmental/Safety/Health and Safety Conscious Work Environment	\$2,226,000	75%	\$1,669,500
AFO 4a: Quality Assurance Program and Quality of Performance	\$1,417,000	50%	\$708,500
AFO 4b: Quality Documentation	\$809,000	50%	\$404,500
AFO 5: Nuclear Safety	\$1,619,000	50%	\$809,500
AFO 6: Technical Issue Resolution	\$1,214,000	90%	\$1,092,600

Incentive B.2 – Award Fee-Cost – Very Good

The fee for Cost consists of one AFO as follows:

	<u>Available</u>	<u>Rating</u>	<u>Earned</u>
AFO 1: Project Performance (Cost, Schedule, and Efficiencies)	\$2,430,000	85.8%*	\$2,085,000

Total Award Fee – Period 2016	\$10,200,000	71%	\$7,242,000
-------------------------------	--------------	-----	-------------

*Percentages rounded

Key Positives for AFO 1: Project Performance (Cost, Schedule, and Efficiencies)

- Approval of the LBL/Direct-Feed LAW Baseline Change Proposal and contract modification.
- Excellent support of an Independent Cost Estimate/Review and External Independent Review.
- Experience of construction management team enabled team to overcome challenges from design changes and late receipt of equipment and materials.
- Positive performance on LAW melters; completed refractory installation and weldout of gas barrier lids.
- Excellent performance by BNI subcontract coordination group.

Key Areas for Improvement for AFO 1: Project Performance (Cost, Schedule, and Efficiencies)

- Project has been recently slightly trending negatively for cost and schedule.
- Decrease in quality of some project controls deliverables.
- More timely resolution of ORP findings based on engineering errors.
- Preplanning and resolution of turnover issues and problems.

Key Positives for AFO 2: One System

- One System recognized as a 2016 Department “best practice” by Office of Enterprise Assessments. Practice shared throughout Department and recognized by Secretary of Energy.
- Developed Direct-Feed LAW program review packages and integrated schedules; valuable to issue resolution.
- Met ORP Key Performance Goal by completing all interface control document updates required to support Direct-Feed LAW.
- Actively participated with tank farms contractor in integrated flowsheet and system planning and modeling development.
- Facilitated accomplishment of key direct-feed LAW milestones; critical to effective and efficient transition to startup, commissioning, and operations.

Key Areas for Improvement for AFO 2: One System

- More proactive identification of impacts to Direct-Feed LAW program execution is warranted.
- Update of Direct-Feed LAW program schedule incorporating constraints was not completed on time.

Key Positives for AFO 3: Environmental/Safety/Health and Safety Conscious Work Environment

- Notification, categorization, immediate corrective actions and reporting of events to the ORP Facility Representative was effective.
- Continued Nuclear Safety and Quality Culture sustainment and improvement efforts resulted in consistent focus on reinforcing desired behaviors while identifying areas for improvement.
- Number of anonymous Condition Reports declined significantly; a positive indication employees are comfortable raising issues.

Key Areas for Improvement for AFO 3: Environmental/Safety/Health and Safety Conscious Work Environment

- Safety statistics decreased based on number of events and injuries that occurred in 2016.
- Higher percentage of mid-level safety and quality deviations identified by ORP and resolution of the deviations has not always been timely.
- Feedback and improvement function of the BNI integrated safety management program needs strengthening (e.g. untimely corrective action plans; issues with electrical authority having jurisdiction; electrical findings; basis of design and nuclear safety).
- Trend of reportable events increased over the last year.

Key Positives for AFO 4a: Quality Assurance Program and Quality of Performance

- Improved assessment program; quantitative measures utilized to indicate effectiveness of programs. Also adopted a strategic approach for planning and scheduling assessments.
- Improved Project Health Dashboard and Trending Program.
- Ongoing effort to ensure requirements have been flowed into implementing requirements has improved.
- Strengthened lessons learned program by incorporating performance metrics into project health dashboard.

Key Areas for Improvement for AFO 4a: Quality Assurance Program and Quality of Performance

- Commercial Grade Dedication program actions to address DOE Finding from August 2015 have not been completed in a timely manner.
- Action Plan to address the Software Quality Assurance Program for plant installed software systems have not yet been completed.
- BNI’s review of closed HLW CRs with documentation errors didn’t completely evaluate impacts. Additionally, an extent of condition was not performed as required by BNI’s Quality Assurance Program.

Key Positives for AFO 4b: Quality Documentation

- BNI demonstrated the ability to retrieve and provide quality documentation and respond to requests for additional information.

Key Areas for Improvement for AFO 4b: Quality Documentation

- Key quality information was submitted six months late, which made it difficult for ORP to accomplish a comprehensive review.

- Although a significant quantity of documentation is available, a preliminary review of the data identified examples where the documentation did not always contain the necessary information demonstrating the specification requirements had been met.

Key Positives for AFO 5: Nuclear Safety

- Working relationship to resolve technical issues was effective. BNI worked with ORP on resolving significant issues in safety control development, and created a safety summary strategy document to aid in working out control strategies for six major hazards.
- Worked with ORP on potential path forward for safety instrumented systems in LAW by applying proper safety level while still meeting all DOE-STD-1195 requirements. Proposed solution will significantly benefit the schedule.

Key Areas for Improvement for AFO 5: Nuclear Safety

- Documents have not incorporated lessons learned from prior ORP comments (e.g. LAW PDSA review).
- LAW PDSA was submitted with significant missing information, making it difficult for ORP to complete its review.
- Four chapters of draft HLW PDSA did not reflect controls approved in Safety Design Strategy.

Key Positives for AFO 6: Technical Issue Resolution

- Successfully established the technical basis for resolution of DNFSB-identified safety issues associated with T1, T2, and T3. (PT)
- Effectively managed the fabrication of the standard high solids vessel prototype; installed and commissioned vessel for pulse-jet mixed control system testing. (PT)
- Established a dedicated team to support HLW design issue resolution and effectively defined solutions that directly address system risks. Actively identified a disposition path to address design and operability (D&O) issues through development of engineering studies to evaluate D&O recommended opportunities for improvement. (HLW)
- Completed full-scale testing of HEPA filters and selected qualified filter design. (HLW)
- Exceptional leadership and coordination in development of path forward to improve visibility on milestones supporting DOE Decision 2 – Path to Full Authorization (HLW)

Key Areas for Improvement for AFO 6: Technical Issue Resolution

- Inadequacy of condition report closure documentation and methodology did not meet quality requirements in last three quarterly surveillances in HLW.
- Key ORP performance goal for completing Pretreatment Facility T1 and T3 technical issues took longer to complete.
- Concepts for addressing structural upgrades for installed PJM vessels were initially not well developed; may result in revision to the technical strategy. (PT)