

# Performance Evaluation Report for

Babcock and Wilcox Y-12 Technical Services, LLC

Contract Number DE-AC05-00OR22800

Evaluation Period: October 1, 2009 through September 30, 2010

10/29/10

The purpose of this Performance Evaluation Report is to provide a final report of the National Nuclear Security Administration (NNSA) evaluation of Babcock and Wilcox Y-12. Technical Services, LLC (B&W Y-12) performance for the period October 1, 2009, through September 30, 2010. This evaluation uses the guidance, criteria, measures, and process established in the Performance Evaluation Plan (PEP) approved at the beginning of this performance period. At Y-12, the fee pool was divided into three components: Base and Stretch Award Fee Incentives (AFIs), Base and Stretch Performance-Based Incentives (PBIs), and Multi-Site Incentives.

The Award Fee Incentives contain three major performance objectives: Institutional Management and Business, Mission, and Operations. The Y-12 Site Office (YSO) met monthly with B&W Y-12 to provide feedback and progress in satisfying the detailed elements contained in the Award Fee Incentives outlined in the PEP. The first section of this report summarizes NNSA's evaluations for each Performance Objective (e.g., Institutional Management and Business) and the topical areas (e.g. General Administrative Management) contained within each Performance Objective. An evaluation of the stretch objectives is also provided. Additional details supporting this report are contained in monthly performance evaluation reports provided to B&W Y-12.

The second section of this report presents the results of the PBI evaluation, both base and stretch. The PBI portion of the fee process is similar to past years and consists of negotiated specific incentives assigned to high priority activities where fee is earned based on quantitative/objective performance results such as product deliverables, schedule, and cost.

Finally, this report communicates information obtained from documented performance evaluations. This report is not intended to repeat assessment evaluations or create new information.

#### I. Institutional Management and Business

The Institutional Management and Business Management Performance Objective included the following topical areas: General Administrative Management, Procurement Management, Information Technology, Modernization, Process and Productivity Improvement, and Contractor Assurance. The overall rating for Institutional Management and Business for FY 2010 is Excellent.

# General Administrative Management

The overall rating for General Administrative Management is "Excellent."

This rating incorporates input from the NNSA Service Center, Office of Field Financial Management and reflects effective funds management. The contractor demonstrated outstanding day-to-day financial support including timely input for monthly financial plan processing; impact analyses; budget execution deliverables; accurate and timely financial reporting; and effective Work for Others (WFO) financial processes. Also, major strides in process improvement were noted in the Fiscal Management area, including the development and implementation of a superb financial status reporting tool which provides transparency at a very detailed programmatic level. However, an obligational control level violation occurred in November.

Y-12 revived the Apprenticeship Program to address recruiting and retaining of skilled craft workers and several classes of apprentices have been hired. Minority and female utilization were greater than the established goal of 90% in the five categories reported and critical skills positions were 95.9% filled, which also exceeds the established goal of 90%. B&W Y-12 and UT-Battelle combined efforts to successfully separate the Multiple Employer Welfare Agreement and Multiple Employer Pension Plan that was in place between the two companies. Separation of the functions allows NNSA to work independently in providing benefit and pension savings services more suitable to each site's respective mission.

Four arbitrations were held with the Atomic Trades and Labor Council (ATLC) and Management's position was sustained in three of those for a success rate of 75%. Two Unfair Labor Practice Charges were filed by the Construction Teamsters Organization because we refused to hear grievances on two topics that were inappropriate to be in the grievance process. The B&W Y-12 position was sustained on both charges. Twelve of 13 scheduled audits were completed within the allotted time of four months. One audit exceeded the 4 month limit because of the significance of findings during field work. Coordination with external audit organizations, i.e., Office of Inspector

General and Government Accountability Office, was outstanding. B&W Y-12 worked with B&W Pantex to develop/test a shared services working arrangement in the Human Resources area. Four of five shared services initiatives were satisfactorily completed. A decision was made to perform a justification cost analysis prior to accomplishing the remaining initiative of using Y-12's Pension Protection System to perform calculations for Pantex.

The Property and Fleet organizations performed excellent all year in custodian training, transfers, data accuracy, and delivery cycle time. Efficiency improvements during the year in the fleet resulted in excellent performance. Although radiation protection issues shut down the excess cycle process for three months, this measure maintained excellent ratings during the other months. Complementary Work for Others (CWFO) surpassed their goals of growing the program by receiving \$49M, exceeding their essential and stretch PBIs (by \$11M). Y-12 continued to exceed customer needs, as evident by the customer surveys, providing a strong indication that the program will continue to grow. Throughout FY 2010, information requested from the B&W Y-12 Legal Organization was provided in a timely and complete manner and the Legal Organization effectively implemented and followed a Management Plan that was compliant with 10 CFR 719.10. B&W Y-12 Public Affairs performed well. All VIP visits coordinated through the B&W Y-12 Protocol Office were well managed and very well implemented. Responsiveness to news media inquiries continued to improve throughout the year.

## **Procurement Management**

The overall rating for Procurement Management is "Very Good."

Supply Chain Management Center (SCMC) performance, Requirements Management, and Prime Contract Administration all performed very well. The contractor missed one (HUBZone Small Business) goal out of its six Business Utilization goals. Subcontract administration needs to improve the resolution of DCAA audit findings.

#### Information Technology

The overall rating for Information Technology (IT) is "Excellent."

B&W Y-12 maintained excellent operational execution by continuing to meet IT metrics, responding in a timely manner to HQ data calls, continuing the IT refresh program, supporting "green" IT initiatives, and progressing on multiple IT projects. Overall, the B&W Y-12 IT Program is well-managed, develops and retains knowledgeable staff, implements pro-active solutions, and quickly addresses any identified issues.

# Modernization

The overall rating for Modernization is "Excellent."

B&W Y-12 provided outstanding support for Y-12 modernization and complex wide transformation initiatives. B&W Y-12 supported the Transformation Site Champion Program and the Nuclear Posture Review (NPR) Infrastructure Subgroup by developing input for the NPR and the Stockpile Stewardship and Management Plans that were delivered to Congress this fiscal year. The Y-12 master planning process continues to be promulgated to other sites through the Enterprise Modeling effort. Outstanding progress was made on the many Y-12 Modernization initiatives including the Y-12 Master Plan, Ten-Year Site Plan, East End Property Protection Area and Parking, Consolidated Manufacturing Complex alternative analysis, Bear Creek Road reroute, Site-Wide Environmental Impact Statement, Utility Migration, and Enriched Uranium Transition. NA-10's support for Complex Command Center was obtained based on B&W Y-12's effort to identify suitable alternatives for the project. The Site Planning Council, Integrated Modernization Team, and the Joint YSO/B&W Y-12 Transformation Team meetings have provided a good forum for integration and evaluation of changes to the Y-12 site in accordance with the master plan.

### **Process & Productivity Improvement**

The overall rating for Process & Productivity Improvement is "Excellent."

B&W Y-12 set a new record this fiscal year for productivity efficiencies and far exceeded the \$40M target by producing \$68.5M in efficiencies. The Productivity Improvement Library System (PILS) database and bi-weekly Productivity Validation Team meetings to verify the effectiveness of each organization's plan and cost savings have greatly improved the ability of both the contractor and the Site Office to remain in tune with the progress toward meeting the goals.

#### **Contractor Assurance**

The overall rating for Contractor Assurance is "Very Good."

YSO review of the Contractor Assurance System (CAS) Program Description (PD) determined the CAS PD to be well-written and comprehensive. YSO approved the CAS PD on May 7. Performance Track was released for site-wide use during the period. Performance Track provides a "one-stop-shop website" for transparency on metrics, issues management, assessments, event reporting, facility availability and other key information on Y-12 site performance and operations. Assessment schedules were uploaded to the Performance Track website in accordance with established goals. Legacy risk reviews have been provided to YSO as required. B&W Y-12 continues to make progress on providing performance demonstrating metrics to YSO. Metrics provided by the Performance Assurance Organization adequately reflect program performance and corrective actions are identified. Metrics were updated to the CAS website and all 27 functional areas have identified leading indicators; however, additional information is needed in a few functional areas (Engineering and Nuclear Safety, Quality Assurance, and Cyber Security) to gain a complete evaluation of the program.

The B&W Y-12 Corporate CAS validation was performed during the week of July 19-22. Results of the validation specifically noted that the B&W Y-12 CAS is compliant with DOE O 226.1A requirements and overall effectiveness was rated at the Managed Level. B&W Y-12 Corporate has validated the B&W Y-12 CAS and has requested the Federal Line Oversight/Contractor Assurance System Affirmation review. All of the performance targets were evaluated as being met with one exception. The performance target for issues management was evaluated as partially met. YSO recognizes that while B&W Y-12 has an issues management system in place, established goals in the areas of Corrective Action Plan validation and verifications were not met. B&W Y-12 has demonstrated it is addressing the issue. It has discussed the issue at senior staff meetings with the President and General Manager, performed value stream mapping activities to address issues within the Issues Management System and the process, and completed a reorganization to centralize staff performing issues management functions.

### II. Mission

The functional areas under the Mission area include Directed Stockpile Work (DSW)/Campaigns, Readiness in Technical Basis and Facilities (RTBF)/Facilities Infrastructure and Recapitalization Program (FIRP), Nuclear Non-Proliferation (NN) and Naval Reactors, and Project Management. These functional areas include the mission and project work that Y-12 is tasked to accomplish throughout the year.

Overall, B&W Y-12's performance in the Mission area was "Excellent" in fiscal year 2010. The DSW Program exceeded W76-1 Life Extension Program (LEP) deliverables and significantly improved the acceptance rate by the end of the period. With the exception of the B83 Joint Test Assembly (JTA) work, surveillance work exceeded the baseline. Dismantlement deliverables were achieved, but B&W Y-12 was not successful in the disassembly of a large system due to project delays on a critical piece of equipment. DSW Productivity Improvement Projects yielded excellent results. Within RTBF/FIRP, B&W Y-12 was very successful in transitioning to Highly Enriched Uranium Materials Facility (HEUMF); completed the downgrade of 9201-5 and 9720-38; and made great strides in eliminating legacy materials. In addition, two major FIRP line items were completed. Also during the year, B&W Y-12 substantially expanded support to the NN area and handled several urgent, high-level requests from other areas in the Executive Branch. B&W Y-12 effectively managed projects within the cost and schedule performance thresholds for many projects. The Uranium Processing Facility (UPF) made some design progress during the year

but the UPF project updated total project cost (TPC) estimates identified significant cost growth to the TPC due to some directed changes, invalid assumptions and contractor errors and omissions.

# Directed Stockpile Work/Campaigns

The overall rating for DSW/Campaigns is "Excellent."

This rating is supported by the recognition that baseline plans for all DSW programs (W76-1 LEP, Stockpile Systems, and Dismantlement) were achieved and in several cases exceeded without any incremental cost to NNSA. Additionally, a solution to the final W76-1 LEP design/manufacturability issue on the Bulkhead subassembly was obtained and successfully tested which led to a 100% acceptance rate in the program. B&W Y-12 experienced problems in the B83 JTA Surveillance Program and with a few projects (e.g., Oven Consolidation, Backfill and Crimp Station 215). The B&W Y-12 DSW and Campaigns programs' cost and schedule performance was managed within thresholds or had acceptable explanations. The DSW Program continued to receive strong enablement from Stockpile Services to help ensure the on-time completion of all DSW deliverables, and the continued programmatic emphasis on both productivity and transformation initiatives continued to result in dividends. The Campaigns Program met the exit criteria or completed all Level II milestones assigned to Y-12. Three key projects (PREDICT, Microwave, and Direct Part Manufacturing) completed the scheduled FY-10 work on schedule.

The PDRD program continues to be well managed and is in compliance with issued program guidance. The program is having good success and is proving to be a valuable contributor to advancing technology and innovation at Y-12.

# Readiness in Technical Base and Facilities/Facilities and Infrastructure Recapitalization Program (RTBF/FIRP)

The overall rating for RTBF and FIRP is "Excellent."

B&W Y-12 effectively managed this area with all RTBF Level 2 and 3 milestones rated as "BLUE" for the end of year as well as all FIRP projects rated as "GREEN." A major highlight for the year includes the transition to HEUMF which the program successfully managed including the removal of material from 9720-5 (100%) and 9204-2 (~70%). In other areas, the program supported the successful downgrade of 9201-5 and 9720-38 facilities. Within production, the program resolved issues associated with the quality of metal buttons being produced; however, it did not achieve the quantities that were originally planned. The availability of Material Recycle and Recovery processes supported the accomplishment of all mission deliverables for the year. The Nuclear Materials Management and Storage team played a major role in the development of the uranium, lithium, and deuterium sections of the National Strategic Plan for DOE Nuclear Materials Management. The plan is required by DOE O 410.2 and is scheduled to be issued by the Secretary of Energy in FY 2011.

Another goal to eliminate waste that had been onsite greater than 365 days was accomplished as well as starting to routinely dispose of new waste within one year. B&W Y-12 also strongly supported key transformation-related projects including: East End parking, Third Street bridge demolition, re-route of brine line around 9201-5, field execution of 9204-4 power utility re-routes, the Accelerated Transformation Project, and Bear Creek Road relocation. Upgrades to the Edwards System Technology fire alarm replacements continued to be worked ahead of the baseline schedule. The emphasis on 9212 Facility Risk Reduction continued with the Miller Picking unit replacement, additional electrical panel replacements above forecast plan (12 versus 5), and the lighting improvement project in A-2 wing. FIRP performance for the year continues to be exceptional with adding new demolition scope (9766 and 9720-38) as well as ongoing accomplishments within the Roofing Asset Management Program. In the area of legacy management, B&W Y-12 was proactive in the clean-up of multiple areas including the development foundry area, the 9720-58 yard, and mercury contaminated soil from the steam plant. A plan for 9206 nuclear materials was submitted on schedule, as well as the implementation plan for 9720-33.

# **Nuclear Nonproliferation and Reactors**

The overall rating for Nuclear Nonproliferation (NN)/Naval Reactors (NR) is "Excellent."

B&W Y-12 made continuous and steady improvements in the execution of NN/NR programs and activities. The increase in new work scope to support the Defense Nuclear Nonproliferation mission has far exceeded expectations by exceeding the stretch PBI by over \$7.3M. Noteworthy are the efforts to disposition surplus highly enriched uranium (HEU) and supply low enriched uranium (LEU) for research reactors meeting customer schedules. The Domestic Response Force Training Program continues to get high praise and attention from HQ and routinely conducts week long courses twice per month. The Performance Testing Workshops have also received very positive HQ feedback. B&W Y-12 demonstrated a prompt and effective response to a request from HQ to produce information to help the U.S. Department of State and the White House address an emerging issue. Also on very short notice, B&W Y-12 responded quickly to arranged briefings and tours for a visit by the U.S. Ambassador to the Conference on Disarmament. The quality of performance and the prompt and effective response to requests from HQ was recognized by very positive feedback from several high level HQ program managers. There continues to be good synergy between the nuclear nonproliferation and Work for Others programs. Overall, management and progress of the NN and Reactors programs is very positive.

#### **Project Management**

The overall rating for Project Management is "Very Good."

B&W Y-12 has effectively managed projects within the cost and schedule performance thresholds for many projects. It has demonstrated strong project processes, systems and activities and met or exceeded performance objectives within the Performance Evaluation Plan. Project Critical Decision 4, completion of projects, for HEUMF, Steam Plant Life Extension (SPLE), and Potable Water System Upgrades (PWSU) line item projects was accomplished during the fiscal year. The projects reflected excellent quality, were validated by HQ reviews, and approved by the Acquisition Executives during the performance period. The line item projects were finished on schedule and within budgets (revised, approved baseline for HEUMF) which represents strong project performance. Critical Decision packages were also developed for Nuclear Facility Risk Reduction (NFRR), UPF, and Beryllium Capability (BeC) during the period and were judged to be of good quality.

Some technical issues were identified with the BeC project but an aggressive response by B&W Y-12 management resulted in successful completion of operational readiness activities. Performance metrics were complete, thorough, and utilized by contractor management to measure performance. UPF made some design progress during the year but the UPF project updated total project cost (TPC) estimates reflected significant cost growth due to some directed changes, invalid assumptions, and contractor errors and omissions.

#### III. Operations

"Operations" includes the areas of Operations; Engineering, Safety and Environment; and Safeguards and Security.

#### **Operations Summary**

Improvements throughout the year in several areas resulted in an overall improvement in Operations. These areas include Radiation Protection; Health and Safety; Quality Assurance; Facility and Site Management; Work Planning and Execution; S&S Program Management; Information Protection; and Nuclear Material Control and Accountability. In the area of Facility and Site Management, the rating improved over the year from Very Good to Excellent. The change in rating was driven by improvements in Facility PrYde ratings, continued high availability of facilities and equipment, freeze protection efforts, and facility cleanup efforts. The Work Planning and Execution (WPE) performance went from Good to Very Good in January 2010 following the success of the startup and loadout of HEUMF and the significant improvement in the area of technical safety requirements (TSR) compliance and initial event reporting (i.e., IEIs). WPE retained the Very Good rating for the remainder of the year due to continued strong TSR compliance; an outstanding readiness program (Y-12 did not need an extension for implementation of 425.1D); event severity and frequency metrics; actions to improve conduct of operations; and 7S and Lean initiatives. In the first half of the year, Maintenance Effectiveness was rated Excellent, but due to operational issues the second half closed out the year as Very Good. Numerous actions are being taken by the Contractor to address this concern. Training continues to demonstrate outstanding performance.

B&W Y-12's Protection Program Management had many significant accomplishments in FY 2010. The highlights include HQ validation and adherence to the Graded Security Protection (GSP) Policy implementation plan, decertification of Building 9720-5 Material Access Area (MAA), opening of the Property Protection Area (PPA), development of an Accelerated Transformation Plan, maturing of a new incident/issue tracking system (SSTARS) and leadership in developing and implementing new NNSA security policies. B&W Y-12 effectively reduced total holdings of classified documents, electronic media, parts, and repositories disposing of over 340 cubic feet of classified documents (equivalent to 30 boxes of documents), 2000 lbs. of paper via the Kimberly Clark facility in Tennessee, and 105 shipments of legacy classified (parts) waste, and a 4.7% reduction in repositories.

The B&W Y-12 Information Security Manager was a key player in the development, approval, and implementation of the new NNSA Policy Letter NAP 70.4 as part of the writing team and leading the NNSA Enterprise during reviews and implementation preparations per the request of Defense Nuclear Security, NA-70. Additionally, B&W Y-12 took effective measures to accelerate NAP implementation at Y-12. While B&W Y-12's Personnel Security Program remains effective and there were improvements in the conduct of self-assessments, there were errors in implementing the badging process that resulted in Incidents of Security Concern (IOSC). The Nuclear Materials Control and Accountability (NMC&A) Program demonstrated high performance and a strong contractor assurance system (CAS), including performance testing, Comprehensive Analysis of Safeguards Strategies (COMPASS), management assessments, and surveillances.

The Cyber Security Program was effectively implemented, however, there were concerns regarding handling of some classified media, maturing of conducting and reporting self-assessments, and development of metrics. The Physical Security Program met performance expectations integral to NNSA mission accomplishment such as the accelerated transfer of Special Nuclear Material (SNM) to the Highly Enriched Uranium Materials Facility (HEUMF), the decertification of the Building 9720-5 Warehouse, Glove Box 04 start up, Physical Security Technology Management Plan (PSTMP), and leading NNSA security reform initiatives in the development of a new Physical Protection policy for the Enterprise. However, persistent issues associated with maintaining security systems, conduct of escorting duties, and Lock and Key Program overshadowed the Physical Security functional area.

All areas in Operations were rated either Good, Very Good, or Excellent, resulting in an overall rating of Very Good for Operations.

#### **Facility and Site Management**

The overall rating for the Facility and Site Management functional area is "Excellent."

B&W Y-12 has continued to improve PrYde ratings for the production facilities. Four of 9 are rated Blue, 4 more are rated Green, and only 1 is rated yellow. Five of the 9 facility ratings improved this year, none were downgraded. Facility infrastructure availability was at 99.8% for the year and production equipment was available 96% of the time it was needed. Combined facility operational availability was above 95% for the year. There were several major successes in the area of Facility and Site Management this year in addition to the improvement in PrYde ratings. The first accomplishment was the improvement made in preparation of the site facilities for freeze season. Freeze related work orders were prioritized and completed in advance of cold weather onset. Continuing improvement efforts in the area of Facility seasonal preparations have made a difference in readiness for the FY11 freeze season as well. Another significant improvement is the efforts made to develop equipment sustainment standards that allow prioritization and standardization of maintenance strategies across all Y-12 facilities. A pilot effort to apply the standards was implemented at Purification Prototype Facility (PPtF) and expanded to 9215 and 9204-2E. B&W Y-12 continued to develop operations plans for the production facilities, utilizing risk ranking strategies for production and facility equipment. Facility clean up campaigns continued to improve the physical condition of the production facilities.

# Maintenance Effectiveness

The overall rating for Maintenance Effectiveness is "Very Good."

FI&S began the year rated as Outstanding and maintained the rating for six months. Since March, operational events related to Maintenance Execution and Utilities operations have contributed to a reduced rating. Since June there have been no significant operational concerns however there have been problems related to material handling and two near miss events associated with FI&S operations. With that said, FI&S has had a tremendously successful year. Estimating accuracy continued to improve and, all performance metrics are improved and indicate positive changes in maintenance execution, planning and support. FI&S completed improvements to the exterior of building 9201-3 and far surpassed expectations for that effort. Material receipt, storage and control areas have been established in the plant. They have been staffed and are operational.

Facility habitability and energy efficiency efforts were begun in buildings 9737, 9103, 9119 and 9113 and 9201-3. These included interior improvements and modifications as well as HVAC improvements. Long range facility and utility planning efforts were completed and facility improvement work was prioritized for enduring facilities. FI&S also supported full staffing for the ARRA work on site and worked to improve maintenance planning and support for that project. Plans to improve landscaping and site appearance were put in place and executed over the year, reducing the amount of grounds maintenance around the balance of plant facilities. The east end was opened to vehicular traffic and FI&S was instrumental in supporting that effort. Historic building 9731 was partially cleaned up and renovated in support of the Secret City Festival activities.

FI&S organized and delivered the Site Executable Plan and integrated responses to NNSA HQ on a number of data calls in support Energy and Sustainability Executive Orders 13514 and 13423. Notable achievements in the Energy Management program include the completion of the steam trap replacement work well ahead of schedule, HVAC setbacks implemented in the Jack Case Center and the New Hope Center, acquisition of Y-12's first hybrid vehicle, a 28-passenger bus, and upgrade of the Y-12 fleet with newer E85-powered vehicles.

# Work Planning and Execution

The overall rating for Work Planning and Execution (WP&E) is "Very Good."

WP&E is rated Very Good for the year. This level of performance was reached in January 2010, following the success of the startup and load-out of HEUMF and the significant improvement in the area of technical safety requirements (TSR) compliance and initial event reporting (i.e., IEIs). The Very Good rating has been maintained throughout the remainder of the period. By the end of FY 2010, TSR performance resulted in a 70 percent improvement over FY 2009. The award fee stretch targets and measures for WPE focused on key restoration activities in EU, establishment of critique performance criteria and metrics, and the establishment of a new High Reliability Organization initiative.

The Production Division continued in the use of Lean manufacturing tools to improve efficiency, productivity and safety. Three restoration activities using a Lean process called Rapid Improvement Events were conducted during FY 2010, including the Building 9212 Pack and Ship area, the non-special nuclear material door openings in Building 9215, and the HEU-thorium pre-planning process. 7S, another effective Lean tool, was employed to improve operations and safety in the Special Materials Processing Department. Continuous improvement in Conduct of Operations (ConOps) in the Production Division was further demonstrated by the reinvigorated Enhanced Floor Surveillance Program and an improved integration of ConOps performance site wide. Continued efforts in this area will be required in FY 2011 to ensure that ConOps performance across Y-12 is of a consistently high level.

The contractor has developed a significantly mature set of WP&E metrics, which can be effective in assessing and trending performance. Event Severity and Frequency was expanded to also include "balance of plant" performance. These metrics are designed to have a direct linkage to performance rating. Production and Balance of Plant event frequencies for FY 2010 were both consistently outstanding. Although some variation occurred month-to-month for event severity, Production and Balance of Plant performance averaged in the very good range.

Performance in the area of readiness activities was excellent in FY 2010 with the success of the Operational Readiness Review (ORR) for HEUMF and six additional Readiness Assessments. In addition, over 20 startups/restarts were successfully completed during the year using the Standard Operation Checklist. B&W Y-12 continued to demonstrate strong complex-wide leadership in the Readiness arena by hosting the FY 2010 Readiness Workshop attended by over 150 representatives from across DOE sites nationwide, and assisting NNSA-HQ and

HSS in the rollout of a major revision to DOE O 425.1, Verification of Readiness of Start Up or Restart of Nuclear Facilities.

B&W Y-12 continues its effort to improve the Lock out/Tag out (LO/TO) Program, and some improvement was noted although there continues to be issues. In the area of Issues Management, some progress was noted in reducing the number of late closures with an overall favorable trend. However, the number of late corrective action plans experienced an adverse trend the latter portion of the period. Throughout FY 2010, the contractor took action to correct areas of concern including prompt action to evaluate and correct a series of minor personnel contamination events to ensure that the trend was eradicated before more significant events occurred.

While Production experienced very good and consistent performance in the area of WP&E, other Y-12 organizations struggled at times during the year. In response, Production Division Operational Performance Improvement resources were provided to organizations such as FI&S to help with WPE performance improvement.

# Training and Qualification

The overall rating for the Training and Qualification Program is "Excellent."

B&W Y-12 maintained excellent management attention on both the programmatic and implementation elements, which resulted in a reduction to an overall plant average of 0.79% in training deficits, which is well below the site-wide target level of 2.5% and is the lowest yearly average since the metric was initiated. In addition, B&W Y-12 has a well-established, rigorous self-assessment program for Training and Qualification (T&Q) and exhibited performance improvement. B&W Y-12 Training, Management, & Delivery (TMD) Organization, Production Training, and the Support Organization Training Managers/Analysts have repeatedly performed effective self-assessments and performance-based surveillances to identify issues and areas for improvement on or ahead of schedule. A consistent set of criteria was used in each assessment/surveillance, with issues appropriately identified, documented, and several resolved. The HEUMF Operational Readiness Review included a programmatic assessment of the T&Q Program which resulted in no significant findings.

B&W Y-12 TMD also participated with the Y-12 Site Office in establishing an Oak Ridge Reservation training reciprocity agreement to accept General Employee Training, Radiological Worker, and HAZWOPER training credentials among the various Oak Ridge Reservation Federal, Contractor, and Union entities. B&W Y-12 continued to make progress in upgrading the training facilities to be more productive. Significant cost efficiencies were achieved in several areas, including converting 16 training modules to web-based training, offering more web-based training options (over 134,000 hours saved), and archiving 234 record history files. All goals were met for the award fee and most stretch-award fee.

#### **Engineering and Nuclear Safety**

The overall rating for Engineering and Nuclear Safety is "Good."

Engineering performance for FY 2010 overall met expectations, but progress was slow in establishing and using a comprehensive set of metrics for this functional area for over half of the fiscal year. The fact that avoidable Nuclear Criticality Safety (NCS) issues continue to occur remains a problem. Several aspects of the NCS Program have improved during the year, including: overall NCS leadership, development and approval of the NCS Improvement Plan, an improved plant NCS Committee, and the improvement of NCS documents.

In the Safety Basis area, B&W Y-12 continued to provide revised Safety Basis documents to support annual updates, modernization, and changes to facilities. Completion and approval of the HEUMF annual update represented a significant achievement that closed all of the conditions for approval. The limited-scope Preliminary Safety Design Report for the UPF long-lead procurement was delivered and approved. B&W Y-12 implemented the Expert Unreviewed Safety Question Determination (USQD) Process at Y-12 and received approval of an exemption to 10 CFR 830 for the 9201-5 complex. Each of these initiatives will yield continuing savings for the plant for many years. Additionally, B&W Y-12 has already made significant progress in fulfilling the milestones in the recently developed NCS improvement plan.

# **Emergency Management**

The overall rating for Y-12 Emergency Management Program is "Excellent."

The B&W Y-12 Emergency Management Program Organization (EMPO) continued to find innovative ways to develop training and exercise activities that enhanced Emergency Response Organization (ERO) response capability, both on-site and off-site. EMPO also maintained emergency equipment and facilities at a high state of readiness, as exemplified by the following upgrades:

- Enhanced information exchange between the Emergency Operations Center (EOC) and Technical Support Center (TSC) by installing hardware support four additional video channels in the Emergency Management Information System (EMInS).
- Deployed four laptop computers with global positioning system (GPS) tracking and air cards for Off-site
  Field Monitoring Teams, which connected them with EMInS in the field and provided real-time tracking of
  the teams during a response. The laptops were successfully employed during the Y-12 Full Participation
  Exercise on June 16, 2010.
- Replaced outdated hardware on forty-five computer workstations in the TSC and EOC.
- Upgraded pagers for over 400 ERO personnel with no interruption in ERO coverage during the transition, ensuring the ERO remained at a high state of readiness.

B&W Y-12 also diligently pursued ways to improve interoperability and collaboration with off-site agencies and organizations. B&W Y-12 maintained a strong presence at the 2010 DOE Emergency Management Issues - Special Interest Group (EMI-SIG) Annual Conference and continued involvement through multiple EMI-SIG subcommittees. Additionally, B&W Y-12 continued to foster interoperability with other Oak Ridge Reservation and HQ organizations by providing substantial personnel support to the Oak Ridge National Laboratory, Los Alamos National Laboratory and Lawrence Livermore National Laboratory during the annual exercises at those sites.

Vital to the success of the Y-12 Emergency Management Program were the contractor self-assessment and drill/exercise programs. No significant deficiencies were identified in contractor self-assessments, site-level evaluated exercises, or YSO contractor assessments conducted in FY 2010. Additionally, the comprehensive set of performance metrics maintained by EMPO accurately gauged B&W Y-12 performance in key areas of emergency management. In recognition of the strong performance and the effective implementation of Contractor Assurance System processes, YSO was able to significantly reduce its direct assessment activities in this area.

#### **Radiation Protection**

The overall rating for Radiation Protection is "Excellent."

The B&W Y-12 Radiation Protection Program continued to be well implemented, in accordance with requirements, and with a proactive approach to identifying and addressing issues. Notable achievements included an aggressive response to fixing off-site property sales issues that revised the entire process for determining applicability of material that will be dispositioned via property sales; continued excellent performance and DOELAP accreditation for the Internal and External Dosimetry programs (including international intercomparison studies for nuclear accident dosimeters); initiatives to prolong the life of current personnel contamination monitors and to develop the criteria for and test the next generation of personnel contamination monitors; early implementation of the revisions to 10 CFR 835 (including modification of 100 program documents and procedures and 40 software programs); radiological down posting of 55,000 ft<sup>2</sup> of area; and programmatic improvements that resulted in significant cost savings of approximately \$0.25M.

#### Health and Safety

The overall rating for Health and Safety is "Excellent."

Performance measures, metrics and assessments continue to show the Health and Safety Program is well implemented in accordance with requirements and at a high level of performance. Notable accomplishments included: Accreditation

Association for Ambulatory Health Care re-accreditation; efforts toward achieving Voluntary Protection Program (VPP) status; steady improvement in Fire Protection metrics; continuing improvement in decreasing the number and frequency of fire patrols; and decreasing failed components and out-of-service fire systems. In April, B&W Y-12 received approval for an Equivalency for Lightning Protection. This equivalency impacts numerous buildings throughout the site with an estimated cost avoidance of over \$6M. B&W Y-12 continues to take appropriate action when trends are identified such as the inclement weather team, and continues efforts to reduce hand and finger injuries. B&W Y-12 continued to perform commercial motor vehicle operations without a DOT recordable accident, which now stands at 17 years.

# **Environmental and Waste Management**

The overall rating for Environmental and Waste Management is "Very Good."

The B&W Y-12 Environmental and Waste Management programs continued to be implemented in accordance with requirements, with a focus on resolving long standing waste storage issues. Noteworthy achievements included significant reductions in low level radioactive waste (LLW) inventories, specifically 50 legacy containers and elimination of all >365-day-old waste containers; safe shipment of over 850,000 ft<sup>3</sup> of low level waste to the Nevada Test Site (NTS); good results from external assessments (e.g., RCRA and Clean Air Compliance annual inspections); timely and high quality environmental compliance reports; and continued support in facility clean-ups (e.g., Building 9215 and Building 9201-5N and 5W). This is the third consecutive year with no environmental Notices of Violation. The Y-12 programs received the 2010 Federal Electronics Challenge Silver Level Award; maintained "Performer Level" status under the Tennessee Pollution Prevention Partnership (TP3) Program; and received the 2010 DOE EStar Award for Y-12's Sustainability and Stewardship Program Initiatives.

Concerns identified during the FY include repeated violations of the sanitary discharge permit from rain water ingress and environmental permit non-compliances for excessive phenols in the sanitary system, and an unauthorized release of lime into East Fork Poplar Creek resulting in a localized fish kill.

#### **Quality Assurance**

The overall rating for Quality Assurance is "Good."

Quality Assurance (QA) performance, overall, met requirements for FY 2010. Facility QA performance improved throughout the year with the establishment of a new Nuclear Facilities QA (NFQA) organization responsible for ensuring proper nuclear QA for facility operations and construction. Accomplishments included development and approval of an NQA-1 compliant QA Program (QAP) for Y-12, establishment of an NQA-1 Implementation Plan (IP), and issuance of a commercial grade dedication procedure. Performance on the IP was good with some delayed actions due to difficulty getting a QA graded approach procedure approved. Issues were noted throughout the year with the implementation of revised procurement processes and procedures, and B&W Y-12 put a lot of effort on improving performance. The Weapons QA Program (WQAP) was effectively implemented. The WQAP was revised and approved by YSO, although it was late. The QAS-2.0 survey conducted on the Delegation of Stamping Authority resulted in only minor observations and an extension of the delegated stamping authority to B&W Y-12.

WQA metrics were developed by B&W Y-12 which provide a higher quality and more comprehensive set of evaluative information and allow for more effective management of the program. A review of the metrics for FY10 showed a total of 5 QA Defect Reports (QADRs), 80 Incidental Defects (IDs), and 3 Incoming Material Reports (IMR). The number of IMRs written against B&W Y-12 is an increase from last year's total of 0. First Submission Efficiency for Specification Exception Reports (SXR) remained at or above 90% for the last 12 months and the SXRs/Unit submitted continues to be maintained below the target goal of 10 per month.

#### Safeguards and Security (S&S) Program Management

The overall rating in the area of S&S Program Management is "Excellent."

Significant milestones this fiscal year included the submission and quality of the FY 2010 Defense Nuclear Security (DNS) Program and Budget review; maintaining an acceptable level of Protective Forces overtime; strong performance in the Office of Enforcement visit; positive feedback as part of the HEUMF Readiness Review; overall

positive performance during YSO assessments; quality of the quarterly Management Systems Assurance Program (MSAP) and budget reports; the strong performance with the development of the FY 2012-2016 budget submission; NA-70 validation of and on schedule performance of the Graded Security Protection (GSP) Policy implementation plan; the approval of the Site Safeguards and Security Plan (SSSP); the continued strong work with SSTARS implementation and benchmarking visits from other sites for security and safety; strong performance and leadership with respect to the zero-based security review; the preparation of HEUMF for special nuclear materials and the expedited load out; Accelerated Transformation Planning; and the ongoing support and leadership with respect to the NA-70 policy and performance measure development. Key GSP accomplishments include Portal 8 Standoff, Airborne Deterrent, and Fort Engagement projects. Additional accomplishments include hosting the DNS Nuclear Security Exchange with Russia and a delegation from the United Kingdom Atomic Weapons Establishment and Ministry of Defence as part of a vulnerability assessment exchange. B&W Y-12 also validated \$2.5 M in cost savings and avoidance associated with various safeguards and security initiatives, e.g. subcontract structure change, reduced portal hours, and many operational efficiencies.

Of key significance this fiscal year (FY) were three issues regarding the protection strategy at a key nuclear facility; concern associated with the rigor and discipline associated with performance testing techniques and documentation; the failure to implement an approved deviation in a key facility; the lack of current risk management documentation; latency associated with the finalization of the Lock and Key self-assessment; and an overdue corrective action plan associated with insider analysis earlier in the FY. While the Lock and Key Program deficiencies are covered under Physical Security, the issue regarding the slow conduct and reporting of B&W Y-12's self-assessment belongs to Protection Program Management.

# **Physical Security**

The overall rating in the area of Physical Security is "Good."

Physical Security activities during FY10 had significant successes while also revealing opportunities for improvement. The program met performance expectations integral to NNSA mission accomplishment such as the accelerated transfer of Special Nuclear Material (SNM) to the HEUMF, the decertification of the Building 9720-5 Warehouse, Glove Box 04 start up, Physical Security Technology Management Plan (PSTMP), and leading NNSA security reform initiatives in the development of a new Physical Protection policy for the Enterprise. A series of issues over a three month period prompted dual independent assessments (B&W Y-12 Legal Division and Department of Energy Health Safety Security Office of Independent Oversight) in the sub-topical area of Barriers and Delay specifically, the Lock and Key Program. Less notable issues with Access (escort) controls as well as compliance/non-compliance issues were also identified throughout the year. The Physical Security program did respond aggressively to all concerns and the actions taken were favorable in appropriately correcting identified issues. While SNM was never at risk, the period of observation revealed opportunities for improvement in performance of program implementation. Administrative and field steps to enhance the program in relevant areas were briefed and provided to the Site Office during the observation period which detailed a greater management and accountability process. YSO is concerned about the heavy reliance on Protective Force for compensatory measures associated with security system failures and the frequent introduction of personal cell phones into security areas. The vast majority of cell phone incidents are covered by a waiver and not reportable as a formal incident of security concern, however the persistence of this kind of issue is a concern. Overall, the aggregate efforts of Physical Security activities have demonstrated to meet performance measures by advancing mission objectives with necessary support, furthering ownership of governance which is exemplified in daily compensatory measure coordination and Security Incident Response activations, Security Systems improvements, and Contractor Assurance System metrics development. B&W Y-12 reduced the security footprint by de-certifying the Building 9720-5 Material Access Area, opening the east end Property Protection Area, and eliminated certain cameras and alarms that were no longer needed. All these elements reduce maintenance and replacement costs.

#### Information Protection

The overall rating in the area of Information Protection is "Excellent."

During FY 2010, B&W Y-12 administered an exceptional Information Protection program that met all DOE, NNSA and B&W Y-12 requirements/directives and expectations as verified via contractor self-assessments, YSO oversight,

and external inspections. B&W Y-12 effectively reduced total holdings of classified documents, electronic media, parts, and repositories disposing of over 340 cubic feet of classified documents (equivalent to 30 boxes of documents), 2000 lbs of paper via the Kimberly Clark facility in Tennessee, and 105 shipments of legacy classified (parts) waste, and a 4.7% reduction in repositories. These efforts met the classified matter reduction goal of 10% and exceeded the 1% reduction goal of repositories. In addition to achieving the destruction of classified documents, electronic media, and parts, B&W Y-12 continued efforts in using alternative methods of destruction that are secure, cost-effective and environmentally friendly.

The B&W Y-12 Information Security Manager was a key player in the development, approval, and implementation of the new NNSA Policy Letter NAP 70.4 as part of the writing team and leading the NNSA Enterprise during reviews and implementation preparations per the request of Defense Nuclear Security, NA-70. The awareness campaign regarding the NAP changes was under development and ready for implementation before the NAP was finally signed in an effort to be ready to reach Site employees as early into the process as possible. Follow-on efforts include the issuance of Standing Orders to implement some early achievable goals, positive use of "integrated" working groups to review implementation efforts, and live and videotaped information sessions.

The B&W Y-12 Operations Security (OPSEC) program continued to demonstrate its high level of performance conducting well-attended and informative monthly OPSEC Working Group Meetings. The meetings continued to include guest speakers arranged through coordination with the DOE Office of Counterintelligence highlighting topics such as terrorism and counterintelligence, export and technology control, homegrown terrorism, and the threat of radical Islam on the international front and within the United States. The OPSEC annual training video was updated and released in June, "Killing with Keystrokes" addressed current OPSEC issues dealing with social networking sites, need to know, wireless devices, and physical security. The video was well received by the Y-12 personnel. The B&W Y-12 OPSEC Program Coordinator prepared the FY 2011 Annual OPSEC plan in September. With the working group input, the coordinator reduced duplicate information and streamlined the document. Additionally, emphasis at the end of the year was to develop new assessment/review forms that would better document tours, walk downs, "closed area" (previously "limited areas") certification, etc., activities conducted throughout the year. This is a plus in the area of contractor assurance efforts and supports an YSO request regarding the review of the conduct of tours and walk downs as related to OPSEC.

The B&W Y-12 Technical Surveillance Countermeasures (TSCM) Officer worked with OPSEC and Classification to discuss the TSCM risk assessment for FY 2011. The risk assessment will compare the security posture versus the information/material that is being protected for each Y-12 facility and provides a numerical value that will align with a suggested priority list of services to be performed by the TSCM team in FY 2011. Throughout the year, B&W Y-12 SS&ES conducted monthly meetings for all Division Security Officers (DSO) in order to provide updated Classified Matter Protection and Control information to all areas of the Y-12 Plant. YSO has observed a high level of participation in the DSO program especially during monthly DSO meetings. B&W Y-12 conducted numerous field verifications of security repositories, shredders, reproduction machines, and accountable classified removable electronic media throughout Y-12 as well as off-site subcontractor facilities. These field verifications were both scheduled and unscheduled. Field verifications and self-assessments conducted by B&W Y-12 were methodical and consistent. Use of detailed and current checklists by B&W Y-12 employees greatly enhanced the self-assessment process. Issues resulting from assessments and field verifications are efficiently tracked to closure. The B&W Y-12 Classification Office has done an outstanding job in managing a comprehensive and complex program that meets DOE policy requirements. Fifty assessments were conducted by YSO during FY 2010 on various areas of this program. Of the four issues that were identified, three have been corrected and the remaining issue is being appropriately managed by B&W Y-12 Y-12 to ensure proper closure. Additionally, the Classification Office proactively addressed multiple areas for program improvement, the most notable of which was obtaining HQ approval for declassification of certain information related to beryllium. The anticipated cost avoidance of this declassification over the next eight years is approximated at \$25M. These types of proactive initiatives are a hallmark of the robust, effective classification program maintained by B&W Y-12 throughout FY 2010 and are anticipated to continue in FY 2011 and beyond.

# **Cyber Security**

The overall rating in the area of Cyber Security is "Very Good."

Positive program aspects seen this FY include meeting NAP implementation milestones; implementation of a security content automation protocol tool, central audit log and analysis for unclassified Window systems, and multi-factor authentication for thin client applications; positive performance at the FY2009 cyber program review with Headquarters; strong program performance as indicated by contractor assurance activities; positive performance with checklist-based shadow assessments; approval of the Cyber Security Program Plan and other key cyber program documentation; approval of the Social Software risk assessment; strong budget preparation coordination; timely submission of data calls; cyber support for HEUMF; positive performance and feedback with regards to the FY 2012 budget submission; approval of the updated NAP implementation plan; Y-12's participation with the NNSA-sponsored incident response event; and the closure of three Office of Independent Oversight findings.

Several issues were noted this FY to include: two deficiencies pertaining to Y-12 not following their internal procedures for clearing, sanitizing, and destroying classified tapes and self-assessment program comprehensiveness and report detail; two weaknesses pertaining to issues management and cyber metrics; and six observations pertaining to timely budget and program review submissions; cyber alert documentation; hardware labeling; accurate cyber architecture documentation; incident database lacking detail; and a cyber system not implemented in accordance with approved plan. YSO also noted issues with unauthorized data transfer and latency in refining metrics per YSO's feedback.

# **Personnel Security**

The overall rating in the area of Personnel Security is "Very Good."

B&W Y-12 continued to meet requirements and performed in a satisfactory manner, maintaining an effective program. Positive accomplishments and efforts continued to be sustained through the maturing self-assessment programs for HSPD-12; Visitor Control, including peer review checklists for Foreign Visits and Assignments by Foreign Nationals, Classified Visits, Human Reliability Program (HRP) Temporary and Permanent Removals, and Special/ Large/Distinguished Visitor visits; Access Authorizations; and the HRP program. B&W Y-12 Personnel Security and Procurement successfully conducted joint efforts to address working with sub-contractors in this area, which includes retrieval of security badges and debriefs of terminating employees to ensure the SF 312, Classified Information Nondisclosure Agreement, is completed. Continuing efforts in the enrollment and issuance of the HSPD-12 credentials are ongoing. FY 2010 had a 99% enrollment completion and 96% activation which demonstrated a successful program.

B&W Y-12 addressed concerns early in the reporting period associated with the incomplete clearance request packages for the ARRA project, but all were resolved by May. Earlier in the year, the contractor and YSO noted an area for improvement regarding the implementation of a self-assessment program. Since December, this effort has gained momentum, and YSO assessments documented the positive improvements. This will continue to be an area of focus in FY 2011. Another area needing improvement is the retrieval of badges from employees whose clearance has been terminated due to 90 day or greater absence. From a Contractor Assurance System perspective, YSO is afforded shadow opportunities in all program areas. YSO noted significant concerns in the badging area due to process failures that led to individuals being inappropriately badged, which led to circumstances where they could have been exposed to classified information without authorization. As a result, corrective actions were initiated, and though these actions are not yet complete, YSO has not seen any repeat issues. A more positive observation involves the closure of the 2008 Office of Independent Oversight finding in HRP regarding access to material access areas by non-HRP Employees. Overall, B&W Y-12 continues to manage all aspects of personnel security effectively.

# Nuclear Materials Control and Accountability (NMC&A)

The overall rating in the area of NMC&A is "Excellent."

The Y-12 NMC&A Program exceeded expectations. NMC&A demonstrated high performance and a strong Contractor Assurance System (CAS), including performance testing, Comprehensive Analysis of Safeguards Strategies (COMPASS), management assessments, and surveillances. YSO oversight results in conjunction with the CAS indicate that the combination of program administration and reliable materials accountability, integrated with

effective materials control elements, provides assurance that special nuclear material is effectively accounted for and controlled. The program continues to be recognized as a leader in the DOE Complex. The rating is based on overall program performance, development and execution of an enhanced COMPASS process, continued progress toward reducing uncertainty associated control limits by identifying major contributors to the propagation of variance limits, and YSO approval of a major revision of the NMC&A Plan. However, there remains too much reliance on estimated values instead of measured values in one material balance area. As yet, there is no plan to eliminate excess tanks which would address this issue and reduce operating costs.

#### FY 2010 STRETCH AWARD FEE INCENTIVES

#### I. MISSION

#### A. Directed Stockpile Work (DSW)/Campaigns

**Performance Measure:** Complete three milestones for the Production Microwave project to represent the completion of designing, fabricating, testing, and delivering a nuclear safety significant SSC in less than 14 months from the award of the contract to a vendor.

#### **Performance Targets:**

a. Receive vendor delivery of the Production Microwave unit by May 28, 2010.

The stretch milestone of May 28, 2010 was not achieved; however, the receipt of the Microwave was received within three weeks of the baseline date and B&W Y-12 was able to recover the baseline schedule.

# B. Readiness in Technical Base and Facilities/Facilities Infrastructure Recapitalization Program

**Performance Measure 1:** The RTBF/FIRP programs are executed in accordance with Work Authorizations, Prioritized Project Lists, annual RTBF Execution Plan, and FIRP Program Execution Plans (PEP), and all other applicable program requirements.

#### **Performance Targets:**

- a. By 9/30/10, complete 5 electrical panels in 9212 and installation of Miller Picking unit.
- b. Achieve significant progress beyond baseline in Edwards System Technologies (EST) upgrades (baseline is six transponders installed).

B&W Y-12 exceeded target a. by seven electrical panels in 9212 and completed the Miller Picking unit installation. The baseline target in EST upgrades was exceeded and B&W Y-12 began working FY 2011 scope in FY 2010.

Performance Measure 2: Progress toward disposition of excess non-nuclear, non-strategic materials.

#### **Performance Targets:**

- a. Remove 400 unneeded containers from the site by September 15, 2010.
- b. Develop an implementation plan to enhance the storage capacity of building 9720-33 that includes a disposition strategy proposal identifying candidate materials for disposition, potential disposition paths and/or customers, cost estimates, timeframes, and funding sources. The plan should also include opportunities to transfer materials to NNSA and non-NNSA entities. In addition, the plan should explore innovative approaches to the sale and recovery of value of material for follow-on work. The plan will be provided to YSO by July 31, 2010.
- c. Execute the FY 2010 activities per the implementation plan.

Performance target a. was deleted via a change request. The implementation plan was completed and submitted on schedule. All planned Phase I activities were completed per the plan as scheduled with the exception of those that were mutually agreed that were not to be pursued in FY 2010; those were removed with an approved change request.

Performance Measure 3: Progress toward disposition of nuclear materials in Building 9206.

#### **Performance Target:**

a. By March 30, 2010, develop a materials management plan that will identify and recommend disposition pathways for the NNSA nuclear materials that remain in 9206. The plan should identify discrete projects required for disposal or retention that have enough measureable detail to be placed in a multi-year incentive plan and should include a set of metrics to be reported against over the next three years, including a proposed timeframe which will support downgrading the facility to below Category 3 by 2012. This plan should propose a minimum of two activities, not currently planned for FY 2010, that would be placed into a stretch incentive plan for completion in FY 2010. The plan must be structured to have clean breakpoints at the end of each fiscal year, so that the plan is transferable to a follow-on contract if necessary. The stretch incentive plan and the multi-year incentive plan are outside the expected deliverable of this stretch award fee item.

The performance target was met. Y-12 submitted a *Materials Management Plan for Building 9206* on March 30, 2010. The plan was submitted on time, and as required, identified disposition pathways for all nuclear materials, and proposed two activities to remove certain nuclear material from Building 9206 in 2010. It was determined that the downgrading of the facility to less than a Category 3 safety hazard facility cannot be accomplished without removal of hold-up and/or under the current safety bases. Therefore, the goal of downgrading the facility by 2012 is not realistic. The plan included an approximate schedule for removal of the stored nuclear materials (with the exception of hold-up) by FY 2014 at an estimated cost of ~\$22M. The effort proposed in the plan is significant and challenging, particularly when considering other plant priorities such as HEUMF transition, Area 5 consolidation, and UPF transition. YSO determined that the plan to work toward the goal to remove all nuclear material, with the exception of hold-up, in 2014, was acceptable. It was noted that this material management plan and the Integrated Facilities Disposition Program should be better integrated to identify the effort and schedule that will support downgrading Building 9206 to less than a Category 3 safety hazard facility.

**Performance Measure 4:** Disposition mercury contaminated soil excavated during the Steam Plant project.

#### **Performance Target:**

a. Ship 65 B-25 boxes of mercury contaminated soil excavated during the Steam Plant project off of the plant site for processing and disposition. Evidence of completion will be validated by SAP shipping records and proof of receiver being under contract to process and dispose of the waste.

The performance target was met. All 65 B-25 boxes of mercury contaminated soil were dispositioned offsite as required. The evidence of completion was provided to YSO as required.

#### II. OPERATIONS

# A. Facility and Site Management

**Performance Measure 1:** B&W Y-12 will review and revise the PrYde acceptance criteria for production and non-production facilities to incorporate a more balanced approach to facility grading.

# **Performance Targets:**

- a. Determine a method to assign responsibility under PrYde to tenant organizations and grade accordingly, by facility and zone.
- b. Incorporate lessons learned from facility cleanups to promote sustainable waste streams and disposal locations in facilities that prevents accumulation of recyclable materials and universal wastes.
- c. Design and enforce area occupancy cleanliness requirements in production facilities.
- d. Design and implement new PrYde grading criteria.

All performance targets were met or exceeded.

**Performance Measure 2:** B&W Y-12 will assure that Building 9212 A2 Wing physical condition is brought to an acceptable standard. Currently lighting, ceiling condition, office and change areas do not meet that standard.

#### **Performance Targets:**

- Complete installation of remaining two electrical panels and lighting in area assuming FRR funding is available.
- b. Complete repair of remaining roof leaks through roofing project and use of FIRP/FRR funding if available.
- c. Upgrade of selected items in 9996 Changehouse to include the following:
  - 1. Remove old lockers Legacy removal
  - 2. Install mirrors
  - 3. Patch hole in the wall in shower area
  - 4. Paint shower floor with rough surface paint
  - 5. Install shelving in entry on first floor for clean scrubs
  - 6. Ensure laundry chute is functional for dirty laundry

All performance targets were met. Roof repairs continue to occur and receive priority. RAMP work has reduced the number of leaks significantly.

**Performance Measure 3:** B&W Y-12 will initiate development of a defined process and program plan for plant buildings with an enduring mission that sustains the equipment function in support of those long term missions.

# Performance Targets:

- a. Develop a set of Y-12 Specific Facility Management Standards for three key infrastructure systems in enduring facilities that defines a proactive maintenance program for renovation, repair, and preventative maintenance of equipment that is generally beyond its expected life cycle. These standards will consider industry experience but will not be identical to industry standards which are established for viable equipment that has not exceeded its expected life cycle.
- b. Develop a Facility Operations Plan for 9215 and 9204-2E, patterned after the current 9212 Operations Plan, to define a 1-3 year horizon of management actions that ensure facilities long term viability.

All performance targets were met or exceeded.

Performance Measure 4: B&W Y-12 will develop a Single-Point Failure Program.

#### **Performance Targets:**

- a. By March 8, 2010, develop and submit to YSO, a process description for the Single-Point Failure Program. The description will identify the following:
  - Appropriate assumptions
  - Clearly defined program scope, purpose, and objective.
  - Clearly defined program requirements (examples include: identified mission critical single-point failures, vendor availability for parts and/or repairs, etc.)
- b. By April 21, 2010, develop and submit to YSO, a program cost estimate and schedule for program development. The schedule will include an initial implementation date no later than May 14, 2010.
- c. Within 30 working days of the start of initial implementation date, identify one essential piece of equipment that is currently funded/maintained by DSW/Production Support and one that is funded/maintained by RTBF and use as prototype for this process.

All performance targets were met.

#### B. Maintenance Effectiveness

**Performance Measure 1:** B&W Y-12 will develop a plan to repair or refurbish HVAC equipment in Buildings 9737, 9201-3 and other balance of plant buildings with an enduring mission to include implementation of a proactive maintenance program in those buildings that sustains the equipment function in support of their long term missions. Performance will be measured based on development of the plan along with completion of items scheduled in FY 2010.

#### **Performance Targets:**

- a. Develop a BOP enduring facility plan by March 31, 2010. The plan should include a focus on improvement of the HVAC systems for the BOP enduring facilities.
- b. Identify both corrective and preventive repairs for the HVAC equipment, prioritize by importance and accomplish repair in accordance with an enduring facility plan provided to YSO.
- c. Develop and implement specific acceptance criteria for buildings and areas of buildings that demonstrate successful implementation of the BOP enduring facility plan.

All performance targets were met.

**Performance Measure 2:** Develop and implement a landscaping plan that identifies and removes unnecessary decorative landscaping around the site while maintaining and sustaining important areas and building approaches for enduring balance of plant facilities.

#### Performance Target:

- a. Develop the landscaping plan by December 31, 2009.
- b. Complete removal and disposition of all landscaping timber, rock, gravel, etc. in accordance with the landscaping plan.

All performance targets were met.

**Performance Measure 3:** B&W Y-12 will complete the setup and organization of equipment staging and parts storage areas in Building 9201-3 and 9212 by December 31, 2009. B&W Y-12 will also complete and implement operation of the East End Tool Crib by December 31, 2009.

#### **Performance Targets:**

- a. Complete set up and organization of the equipment staging and storage areas on the second floor of Building 9201-3.
- b. Complete set up and organization of the equipment parts storage area in Building 9212 basement.
- c. Finish the set up and begin operation of the East End Tool Crib.

All performance targets were met.

# C. Work Planning and Execution

**Performance Measure 1:** In line with the Feedback and Improvement principles of ISM, the contractor will comprehensively evaluate its critiques and critique processes and implement continuous improvements to the critique processes based upon the results of those evaluations.

#### **Performance Targets:**

- a. The contractor will institute the use of a comprehensive, self-assessing Critique Evaluation and Improvement Process by February 2, 2010.
- b. The process will implement a self critical approach to assess critique participation, fact finding, contributing factors, immediate corrective action determination and trending.

- c. The Critique Evaluation and Improvement Process will ensure effective and efficient conduct of critiques, including integration with applicable management systems (eg, issues management, OSB, management reviews, risk management processes, etc).
- d. The Critique Evaluation and Improvement Process will ensure that the critique process is integrated with appropriate follow-up activities such as the ultimate identification of root causes, corrective actions, dissemination of lessons learned, and the handling of significant issues in accordance with B&W Y-12's risk management policy.
- e. B&W Y-12 will benchmark one or more high-performing critique evaluation processes in the complex and incorporate best practices from these programs.
- f. Metrics that B&W Y-12 uses to manage their critique processes/improvements will be provided to YSO monthly.
- g. The effectiveness of the revised Critique Process must be demonstrated by B&W Y-12 by 6/30/2010 and demonstrated improvements sustained through 9/30/10.

This performance measure was fully met.

**Performance Measure 2:** The contractor shall provide an environment conducive to good conduct of operations, including a commitment to continual improvement and a reduction in reliance on system workarounds.

# **Performance Targets:**

- a. Restore capability to transfer Intermediate Evaporate product to the Secondary Extraction feed tanks within piping systems, eliminating the need to manually drain, filter and transfer via safe bottles.
- b. Improve denitrator operations
  - Install a modification to the denitrator vent line to improve worker safety and denitrator availability.
  - Evaluate options for transferring material from the denitrator to the glove box, eliminating the need to manually collect the material in a respirator area.
    - Evaluate options and provide cost estimate range (95% confidence level) to YSO by 6/30/10. Document with an Implementation Plan.
    - Evaluate impacts to RTBF FY2011 Execution Plan and provide to YSO by 4/30/2010.
- c. Process legacy material in the remaining two banks of wet chemistry tanks. This is approximately 3,000L of material containing about 85 kgs. of uranium that has been in the tanks since the shutdown.
- d. Demonstrate appreciable progress towards placing the C-Wing condensate tanks (or suitable alternate) in service for receipt of process condensate. This will result in industrial safety and criticality safety improvements.
  - Evaluate options, provide recommendation and cost estimate range (95% confidence level) by 6/30/2010. Document with an Implementation Plan.
  - Evaluate impacts to the RTBF FY 2011 Execution Plan and provide to YSO by 4/30/2010.

Target a) was partially met - Physical modifications to the system were completed, procedures were updated, operator training on revised procedures was completed, and a software modification was installed. On 9/30/10, the Operational Safety Board (OSB) reviewed the activity using a standard operations vhecklist and approved the planned operation. The system alignment had been updated, but was not completed, and the post work testing (PWT) for the software installation and repair of leaks still needs to be performed.

Target b) was partially met - Completed the piping modification including in-service leak test and the electrical modification. The electrical NEC installation inspection was signed off complete on 10/6/10. The PWT is scheduled to be finalized the week of 10/11/10. There is additional paperwork required to support the modification and make the associated design changes and CSR revisions effective.

Target c) was not met. Activities to support this goal had to be out-prioritized in support of the basic mission of the equipment. Movement of solution through the tank system was continually reviewed to complete the goal, but, in the interest of keeping the primary mission uncompromised, the goal could not be

accomplished.

Target d) This performance target was fully met. YSO was pleased with the proposed option which was substantially less expensive than the original cost estimate.

**Performance Measure 3:** B&W Y-12 will initiate development and institutionalizing of a High Reliability Organization (HRO) Program. Coupled with other B&W Y-12 initiatives, HRO concepts will be used in an overarching methodology to help reduce the likelihood of experiencing those unwanted events.

### **Performance Targets:**

- a. Develop Y-12 HRO Executive Vision by 6/30/2010.
- b. Conduct GAP analysis of existing CAS Metrics that can possibly assist as leading or lagging indicators of HRO by 6/30/2010.
- c. Initiate monthly collaborative sessions with Pantex HRO personnel to coordinate efforts and facilitate lessons learned by 6/30/2010.
- d. Following GAP analysis of CAS Metrics; develop appropriate metrics to provide both leading and lagging indicators for management by 7/31/2010.
- e. Host Pantex HRO personnel at Y-12 to assist in HRO transformation by 7/31/2010.
- f. Develop HRO training handbook by 7/31/2010.
- g. Develop and deploy a Human Performance Improvement (HPI) Implementation Matrix closure evidence file by 8/31/2010.
- h. Develop and provide HRO training for Senior Managers by 9/30/2010.
- Coordinate and conduct semi annual cross complex collaboration events with Pantex and other complex partners by 9/30/2010.
- j. Develop an appropriate HRO linkage into the site strategic plan by 9/30/2010.

This performance measure was fully met.

#### D. Training and Qualifications

**Performance Measure 1:** B&W Y-12 Training Management & Delivery Organization, Production Training, and B&W Y-12 Support Organizations will perform up to three additional programmatic self-assessments to verify that the training program is properly implemented.

# **Performance Targets:**

- a. The programmatic self-assessments are in addition to those identified in the integrated assessment schedule.
- b. The scope of the programmatic self-assessments will focus on specific topical areas identified in DOE Order 5480.20A.
- c. Perform these additional assessments by August 15, 2010, and provide final reports to the YSO Training Manager no later than 30 days after completion of the assessments.
- d. Assessment criteria shall include an evaluation of any closures from deficiencies generated from YSO assessments performed in previous fiscal years, including, but not limited to, evaluation of the conduct of Performance Documentation Checklists (PDCs), classroom training, and implementation of completed Training Impact Assessments (TIAs).

This metric exceeded YSO expectations. B&W Y-12 performed six additional management assessments, generated reports and provided these reports to YSO on time. The reports were thorough and accurately reflected DOE Order requirements. YSO also shadowed some of the assessment activities and confirmed the reviews were thorough and well done.

**Performance Measure 2:** B&W Y-12 Training Management & Delivery Organization shall convert up to three official training forms to electronic format with electronic signatures.

#### **Performance Targets:**

- B&W Y-12 Training Management & Delivery Organization shall identify the official, controlled training forms to be converted to electronic format with electronic signatures by January 31, 2010, and notify the YSO Training Manager.
- b. Conversion completed by September 1, 2010.

This performance measure was met. B&W Y-12 converted three official forms to electronic format with electronic signatures. These included the Training Exception Form, the Managed Module Form, and the Training Impact Assessment Form. The forms were converted, tested and put in place by the end of FY 2010 and missed the 9/1/2010 due date; however, review of these forms and YSO oversight of the process indicate that B&W Y-12 Training Management & Delivery did an outstanding job on this effort and provided a mechanism for future conversions that will lead to additional future cost savings and productivity improvements.

Performance Measure 3: B&W Y-12 Production Training will perform three additional training surveillances on the HEUMF Training program after startup authorization.

#### **Performance Targets:**

- a. Assessments will be performance-based at the job location (s) and conducted by the facility training analyst/coordinators.
- b. B&W Y-12 will utilize a training surveillance checklist which focuses the review on performancebased activities. Examples include training activities such as classroom, OJT, and PDCs. A consistent set of criteria shall be developed by the Training Management & Delivery Manager and used in all assessments.
- Provide completed/approved checklists to the YSO Training Manager within 30 days of approval.

This metric was met. B&W Y-12 Production Training performed 3 additional surveillances on the HEUMF training program after the startup authorization, documented them appropriately and provided the approved reports to YSO on time. YSO reviewed these reports and has no concerns.

#### E. Safeguards and Security

Performance Measure 1: Implement a Security Content Automation Protocol (SCAP) tool for security policy interrogation for the unclassified networks and a pilot group of Windows systems.

# **Performance Targets:**

- Evaluate SCAP tool functionality and flexibility and define a pilot group of systems for deployment. (March 2010).
- Deploy a SCAP tool on an agreed-to pilot group of Windows systems. (June 2010).

These performance targets were met. A pilot group of systems was identified by March 2010. YSO's walk down determined the stretch award fee incentive pertaining to the deployment of a SCAP tool was successfully implemented. The deployment/use of this tool is another layer of protection that will allow cyber personnel to evaluate security settings on the network from a console versus a paper-based check or console walk down. Key benefits of this tool include: (1) automated method to determine if a system is configured per Y-12 approved configuration requirements or Federal Desktop Core Configurations(FDCC); (2) software patch status; and (3) presence of known vulnerabilities. This tool provides for efficiency for key cyber security processes, including the ability to "write your own" policies and supports National Institute of Standards and Technology/FDCC configurations; compliance auditing is easily performed using defined standards; the amount of time spent performing certification, accreditation and assessment activities will be reduced significantly; and historical tracking to capture changes on critical services is provided. No issues were noted with the implementation of this tool on the pilot set of systems, and Y-12 is now well positioned to deploy this tool to both the classified and unclassified environments in FY 2011.

**Performance Measure 2:** (Protected Area (PA) Reduction) Develop a conceptual design that will allow both a 70-acre reduction of the Protected Area by March 2012 and achieve compliance with GSP requirements by September 2012.

# **Performance Targets:**

- a. Provide sufficient design detail to facilitate approval to proceed with the initiative.
- b. Provide pre-conceptual cost information with sufficient accuracy to support -20 / +50% estimates.
- c. Develop an integrated schedule sufficient to identify critical path tasks and management challenges that would have to be overcome to meet the two FY 2012 challenge dates.
- d. Subsequent to submittal of the conceptual design, provide effective support to NNSA during evaluation and action on proposal.
  - Effective performance on this objective would include rapid response to emerging questions and concerns that provides compelling arguments based on the work done to prepare the conceptual design package.
- e. Subsequent to an NNSA decision to proceed with the project and assignment of appropriate funding, B&W Y-12 will initiate, design, and deliver high quality project documentation to YSO consistent with the elapsed time intervals identified in the conceptual design package.
  - 1) The expected end state of the project for FY 2010 will be based on
    - a) the number of months left in the fiscal year after authorization and funding, and
    - b) the work scope identified in the plan to be accomplished in that number of months.

This performance measure was met. The Y-12 Accelerated Transformation proposal (ATP) was approved by the NNSA Administrator in March 2009, which sufficiently outlined the conceptual design for the 70-acre reduction of the protected area, but due to a lack of funding, B&W Y-12 was unable to execute the ATP in FY10. Although progress on this initiative was slow due to the lack of funding, B&W Y-12 pursued funding commitments via discussions with NNSA HQ, YSO and B&W Y-12 senior leadership, and continues to work towards completing this initiative in the 2012 timeframe. In addition, the site has completed D&D of Bldg. 9720-38, which clears the footprint in that area for the "H" Road barrier. The site is evaluating other PA Reduction projects identified in the ATP to determine which of those projects would need to be accomplished, regardless of funding decisions, to establish priorities for completion of those projects. B&W Y-12's work on this project is admirable and any delays, shortcomings, or failures to execute this project have been a result of funding deficiency and not a reflection upon the contractor. B&W Y-12 continues to be responsive to YSO and to deliver a high quality product for the NNSA.

#### III. INSTITUTIONAL MANAGEMENT AND BUSINESS

#### A. Process and Productivity Improvement

**Performance Measure:** Manage and execute productivity improvement through implementation of initiatives to improve site performance against budget and schedule targets.

#### **Performance Targets:**

- a. Implement 25 additional Productivity Improvement Initiatives by September 30, 2010, with the following at minimum:
  - 10 additional 7S activities
  - Three additional Value Stream Maps (VSM) for Y-12 processes
  - Two additional Rapid Improvement Events (RIEs)
- b. Attain \$40M in efficiencies and cost avoidance realized from productivity initiatives and Y-12 Sitewide productivity improvement efforts.

These performance targets were met. B&W Y-12 far exceeded the targeted number of 7S activities for the year. The total targeted by the base and stretch incentives was 35. B&W Y-12 actually completed 118 7S activities throughout the plant this year (93 additional incentives against a target of 10 for the stretch

incentive). Three additional VSMs were targeted for the stretch incentive and five were completed. B&W Y-12 met their target of two additional RIEs.

B&W Y-12 set another new record this fiscal year for productivity efficiencies and far exceeded the target by realizing \$68.5M in efficiencies.

#### B. Procurement Management

**Performance Measure 1:** Continue the promotion, development and implementation of world-class supply chain attributes of the NNSA Supply Chain Management Center (SCMC) and purchasing organizations on a Complex-wide basis with substantial participation and collaboration by Y-12.

### **Performance Targets:**

- a. Convert three Y-12 AVID Agreements to the NNSA eStore sourcing tool.
- b. Increase utilization of SCMC strategic contracts in FY-10 with corresponding activity being greater than that realized and committed in FY-09 (402 actions). Increase usage by doubling those committed actions for FY-09.
- c. Attain a FY-10 Procurement Spend in excess of 33% of the finalized FY-09 Procurement Spend minus exclusions with sustained savings rates comparable to those achieved in FY-09 through the SCMC e-sourcing tool.
- d. Conduct eSourcing (sealed bid with rank and single/sole source efforts) events with a stretch goal of 50 events.

The stretch metric involved four targets that promoted the development and implementation of world class supply chain attributes in support of the NNSA SCMC. The contractor successfully surpassed two of the targets, did not make a third target, and experienced rule changes by the SCMC during FY 10 that made the fourth target unattainable and not practical for the Y-12 site.

# C. Information Technology

**Performance Measure 1:** Voice/e-mail integration (called Unified Communications). Implementing Microsoft Unified Messaging will allow personnel to receive their voice mail messages through their Microsoft outlook email. The voice mail content will appear as attachments to email messages. This feature will allow users to manage their voice mail messages without having to use their telephone stations and will make voicemail available via BlackBerry devices.

# **Performance Targets:**

- a. 06/01/2010 (complete acquisition of all Microsoft Unified Messaging hardware and software)
- b. 07/01/2010 (all configuration determinations and initial system programming and testing will be complete)
- c. 07/23/2010 (pilot testing will be complete)
- d. 08/13/2010 (fastest possible implementation of the Microsoft Unified Messaging infrastructure for Jack Case Center and New Hope Center – fully operational
- e. 09/01/2010 (no later than full deployment of the Microsoft Unified Messaging infrasture for Jack Case Center and New Hope Center fully operational)

Targets a - c were met as scheduled. Target d did not meet the "earliest" date, and target e was successfully completed 4 days early.

Performance Measure 2: Clientless Virtual Private Network (VPN) implementation. Implementing a clientless VPn will allow remote access to Y-12 computing resources via the central Y-12 Windows Terminal Servers from any external computer with no client installation required. There are over one thousand users currently authorized for remote access. The clientless VPN solution will be implemented for general availability to all authorized external users.

# **Performance Targets:**

- a. 05/10/2010 (implement firewall for VPN changes as approved)
- b. 05/15/2010 (complete Unclassified Services Network ISSP page changes and submit to NNSA-YSO for consideration
- c. 06/01/2010 (procure Cisco ASA5510 appliance, configure, and install in Y-12 data center)
- d. 006/21/2010 (procure and allocate VPN client licenses)
- e. 06/21/2010 (obtain certification that the client and VPN appliance connectivity is FIPS 140-2 compliant)
- f. 06/21/2010 (perform system testing to insure that both SSL VPN connection and AnyConnect client connections perform as designed)
- g. 06/25/2010 (earliest that a FIPS 140-2 certified clientless VPN connectivity capability can be fully implemented)
- h. 07/06/2010 (no later than full deployment of a FIPS 140-2 certified clientless VPN connectivity capability)

Targets a-f were met as scheduled. Target g did not meet the "earliest" date, and target h was fully completed six days early. The clientless VPN was fully deployed and available to all users.

#### FY 2010 PERFORMANCE BASED INCENTIVES

### **ESSENTIAL**

#### I. Mission

#### A. HEUMF

This PBI was met. The PBI submittal was of sufficient quality to support the request for CD-4 approval from NA-1, and was submitted ahead of the February 3, 2010 milestone.

#### B. UPF

This PBI was met. The CD-2/3 Package for Long Lead Procurement and Site Preparation was provided to the Y-12 Site Office prior to the scheduled September 15, 2010 date.

#### C. Line Item Milestone

# Potable Water System Upgrades Project

- 1. PWSU -Complete Area F and P Construction by January 28, 2010. Area F&P PBI was partially complete on January 12, 2010. Paving remains to complete construction. Paving delay is a result of unfavorable weather condition.
- 2. PWSU -Complete Area O Construction by May 28, 2010. Completed timely
- 3. PWSU -Submit to the YSO a final Critical Decision 4 (CD-4) Package by August 4, 2010, for submittal to the Acquisition Executive for approval. —Completed timely

#### Steam Plant Life Extension Project SPLE

- 4. Fire first package boiler as part of commissioning by 1/15/2010. First fire of package boiler was achieved ahead of schedule on 12/31/2010. Completed as planned
- 5. SPLE -Completion of 30 day pre-operational test run of steam plant system by March 15, 2010. 30 day pre-operational test run was accomplished timely on March 15, 2010. Completed as planned
- 6. SPLE -Submit to the YSO a final CD-4 package for review by May 6, 2010 for submittal to the Acquisition Executive for approval. Completed as planned
- 7. SPLE -Load first delivery of fuel oil storage tanks by 1/29/2010. First delivery of fuel oil accomplished ahead of time 1/15/2010. Completed as planned

# **Nuclear Facility Risk Reduction Project**

8. Submit to the YSO a final *CD-2/3A* package for by September 30, 2010, in support for the Acquisition Executive for approval. – Completed as planned

# **Beryllium Capability Project**

9. BeC -Submit to the YSO a final CD-4 package by for review by April 7, 2010 for submittal to the Acquisition Executive for approval. – The PBI was missed.

# D. W76 LEP

This PBI was met. W76-1 production exceeded the baseline by 11%.

#### E. Dismantlement and Disposition

This PBI was met. Dismantlements exceeded baseline by 0.17%.

#### F. Disposition Excess Nuclear Material

- 1.a Package and ship 710 drums
- 1.b Package and ship 100 drums of legacy HEU

- 1.c Ship 8 fully load shipments of DU metal of alloys
- 1.d Dispose of one DU/NP item
- 1.e Operational TRISO packing area-disposition 40 drums U-Th
- 1.f Complete capital project to refurbish 9212 carbon burners
- 2. Complete 10 shipments of classified items not compliant
- 3. Remove 3.0 metric tons of SNM

This PBI was met. Steady progress is being made to disposition legacy nuclear material. Processing and disposal of process solids included in the STP and that are to be disposed prior to end of FY 2011 as part of commitments made to the state of Tennessee are progressing ahead of schedule. Disposal of HEU contaminated process combustibles, off-site shipment of DU metal or alloys, and a DU/Np item remain on schedule. The capital project to refurbish the 9212 carbon burners to support disposition of legacy slag and liner is on track.

#### G. MRR

- a. Produce 150kgU purified metal
- b. Consolidate by size reduction 500 parts in interim storage

Target "a" was partially completed; approximately one third of the 150kgs of purified metal was produced. Target "b" was completed -- consolidate by size reduction and/or processing 500 parts currently in interim storage for reuse in other programs or long-term storage.

# H. QE & JTAs (Stockpile Systems)

This PBI was met. JTA production achieved the baseline. With the exception of B83 work, surveillance work exceeded the baseline.

#### I. HEUMF Transition

- a. Load 30 RCSB in 9720-5
- b. Relocate or process to HEUMF acceptable form 310 containers
- c. Stage 250 drums in 9720-5
- d. Remove material from 9720-5 for downgrading of MAA
- e. Move 50% of HEUMF qualified material from 9204-2

This PBI was met. Loading of RCSBs, staging of drums, movement of materials to HEUMF, deinventory of 9720-5, and partial de-inventory of 9204-2 (50%) were completed as scheduled.

#### II. Operations

#### A. Facility and Site Management

- 1.1 Complete 16 identified freeze protection work orders for 9212
- 1.2 Remote monitoring of temperature in B-1 Wing computer room

The performance targets were met.

2.1 9720-32 NDA facility real time inventory

The performance target was met.

- 3.1 Concrete repairs
- 3.2 Complete preparation of 40 electrical one-line drawings

Performance Target 1 was not met due to a combination of additional technical scope required and late identification of the impact to the work. Performance Target 2 was met.

- 4.1 Obtain approved telecommunications proposal
- 4.2 Deploy and test wireless temperature monitoring

The performance targets were met.

# B. Safeguards and Security - Cyber

- a. Install new system for DOECIRC
- b. Deploy HBIDS on Desktops
- c. Purchase, install, deploy minimum of 20 wireless sensors

Target a. was met. This system was deployed and is operational. The addition of this server allows functions to be split between two servers decreasing the workload thus increasing the server efficiency. In addition, Y-12 is now receiving a more comprehensive version of SNORT alerts. Target b. of this PBI was not met and no fee was paid for this item. Target c. was successfully completed. Twenty wireless sensors were deployed and are operational, bringing the total number of sensors to 36 across the site. The 20 additional sensors were deployed in a manner that increases the Site's ability to locate a wireless signal more accurately.

### C. Health and Safety (Wellness Program)

- 1. Initial Chronic Disease Mentoring Program
- 2. East End Life Center
- 3. JCC Life Center
- 4. West End Life Center
- 5. Physical Therapy Program
- 6. Health Risk Assessment

This PBI was completed. B&W Y-12 opened the East and West End, and JCC Wellness Centers throughout the FY. The three facilities employ four licensed athletic trainers and a physical therapist.

#### III. Institutional Management and Business

#### A. Complementary Work

a. Receive total of \$30M in new BA

This PBI was successfully completed. Complementary Work for Others surpassed their goals of growing the program by receiving \$49M, exceeding their base and stretch PBIs (by \$11M). 110% of the goal was attained.

#### B. Defense NN

a. Receive total of \$4M over the final FY09 funding level

This PBI was successfully completed. Total funds received was \$24,515,899 against a goal of \$17,685,403. 139% of goal attained.

# **Stretch**

#### I. Mission

#### A.(S) UPF

- 1. Perform integrated design review
- 2. Complete design for the CD-2/3 submittal by 6/30/10
- 3. Submit updated TPC range estimated by 8/2/10

All UPF Performance Based Incentives were successfully completed and received full payment.

#### B.(S) Deleted

#### C.(S) Deleted

# D.(S) East End Parking

- 1. Final Design for East End Parking and Traffic Flow
- 2. Construct East End parking for 500-800 vehicles
- 3. Make East End PPA accessible w/o controls or checkpoints
- 4. Modify hostile intent system

This PBI was met. B&W Y-12 opened the East End PPA and constructed over 600 parking spaces in accordance with the established schedule.

# E.(S) Deleted

#### F.(S) Production Waste Disposition Initiative

- 1. Disposition defined inventory of >365 day low level waste
- 2. Disposition all low level waste with FY 2009 start date
- 3. Disposition 25 legacy "barrier box" containers

All performance targets were fully met.

# G.(S) Cold Rolling Mill Project

- a. Construction work start approval
- b. Cold Rolling Mill installed with functional utilities

This PBI was met. The target date for construction completion and turnover for pre-operational testing was achieved.

#### II. Operations

# A.(S) Downgrade MAA existing warehouses

- 1. Complete mods and/or dev of security plans
- 2. Complete Bldg 9720-5 & Bldg 9720-82 SNM inventory
- 3. Complete all MAA decertification activities

All actions were successfully completed.

# B.(S) Facility Deactivation

Reduce 9201-5 below hazard category 3

This PBI was met. 9201-5 material removal was completed in FY 2009. YSO approved the implementation plan for the 10 CFR 830 exemption and actions to downgrade the hazard category for the DU complex was completed as required.

# C.(S) Utility Isolations and Risk Reduction

- 1. Complete reroute of remaining utilities at 9201-5
- 2. Complete construction subcontractor demobilization activities
- 3. Complete turnover of brine line re-route to Utilities

This PBI was met. Brine line construction de-mobilization, transition to operations, and design for other utility reroutes was completed on schedule.

# D.(S) Graded Security Protection

- 1. Airborne Deterrent System
- 2. C31 System Deployment
- 3. BearCat Neutralization Deployment (Phase II)

- 4. MotoMesh Deployment (Phase II)
- 5. Security Systems Support
- 6. Portal 8 Stand-off (Hostile Intent)
- 7. Area 5 Fort Engagement (Towers 1 and 3)
- 8. Red/Black Video Separation
- 9. Two Person Validation

All of the PBI milestones were successfully completed.

# E.(S) Maintenance Effectiveness (Building 9201-3)

- 1. Complete north side
- 2. Complete south and east sides
- 3. Complete west side

All performance targets were met. Efforts exceeded YSO expectations.

#### F.(S) Steam Line Evaluation

- 1. Complete FI&S activities identified in steam line sampling plan
- 2. Replace steam lines in excess of 25% reduction in wall thickness
- 3. Replace pre-heat steam coils

All performance targets were met. Verification walkdowns were conducted for both targets.

### G.(S) Targeted Waste Removal

- 1. Disposition excess material adjacent to buildings 9993, 9720-50, 9750-52
- 2. Disposition 3 excess trailers
- 3. Disposition excess materials at New Salvage Yard

B&W successfully met all the performance measures described in the PBI. Excess material was properly dispositioned from the three areas.

# H.(S) Fire Alarm System Replacement

- 1. Install an additional 3 transponders in the EST upgrades
- 2. Mount at least 3 transponders on Loop 3
- 3. Complete additional activities

This PBI was met. Completion of the protected area loops for Category 2 Nuclear Facilities of the fire alarm system was completed in September. The completion was approximately one month ahead of schedule. This resulted in complete transition to the new EST 3 fire alarm transponders for the Category 2 nuclear facilities.

#### I.(S) Disposition Excess Nuclear Material

- 1.a. Remove oxides and solutions from 9206
- 1.b. Move from 9206 to 9212, package, discard, and ship offsite
- 2.a. Remove all stored materials from Building 9720-38
- 2.b. Submit notification to YSO to cancel SAR/TSR

#### J.(S) Partial Clean-up of Building 9731

This PBI was successfully completed.

#### III. Institutional Management and Business

# A.(S) Defense NN

a. Receive additional total of \$4M in new funding above base PBI

This PBI was successfully completed. The stretch goal of increasing NN support was exceeded by \$7.7M.

# **B.(S)** Complementary Work for Others

a. Receive a total of \$38M in new BA

This PBI was successfully completed. Complementary Work for Others surpassed the goals of growing the program by receiving \$49M, exceeding their base and stretch PBIs (by \$11M). 128% of the goal was attained.