

SECTION J

APPENDIX D

MERGER TRANSFORMATION PLAN

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[Note: To be inserted by the Contracting Officer after contract award.]



Merger and Transformation Plan

Revision 2

Contract DE-NA0001942

SDN-25680-PLN-00003

prepared by
Consolidated Nuclear Security, LLC (CNS)

prepared for
US Department of Energy
National Nuclear Security Administration
NNSA Production Office

Revision Log

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1.0 EXECUTIVE SUMMARY

The Merger Transformation Plan (MTP) describes CNS’ approach to the merger of operations at the Pantex Plant and the Y-12 National Security Complex; steps CNS is taking to ensure we maintain critical skills and avoid impact to operations; how we will identify and streamline redundant technical and business operations; and the cost savings that will result from these efforts. The MTP is intended to be a high level document and includes selected elements of CNS’ management approach and cost savings which were included in the CNS proposal that was evaluated for award. Further details regarding CNS activities related to the merger and transformation and our comprehensive approach to managing risk will be described in other documents prepared during the contract transition and execution phases. CNS recognizes the significant stakeholder interest in the consolidation of the Pantex Plant and the Y-12 National Security Complex into an integrated enterprise managed under a single contract and the

NNSA Goals	The CNS Approach “Run it Like Our Business”	
Improve performance in completion of missions for nuclear production operations	Protect and secure missions	Naval reactors discipline
	Revitalize performance	Outsource strategically
Transition/merge operations at geographically dispersed centers of excellence under a single contract	Booz Allen evaluation tools	Value stream mapping
	CNS team experience	Consolidated virtual organization
Reduce the cost of performing work	Culture change driven by proven techniques	Eliminate waste
	Match capacity with capability needs	Workforce incentives
Require actions that support operations as an integrated DOE/NNSA enterprise	Matrix management to eliminate silos	Redesigned approaches
	Enterprise baselines for all levels of the organization	Sustainable delivery of IT solutions

Figure 1 – NNSA Goals per Solicitation No. DE-SOL-0001458

associated potential for cost savings. The MTP is aimed at sharing the underlying methodology, processes, and guiding philosophy with a broader audience, including stakeholders involved in the operations and governance of the M&O contract. The MTP also documents the sharing structure for savings embodied within the original CNS proposal including alternative sharing arrangements that have been proposed by CNS and approved by the Contracting Officer. These alternative arrangements include one-year savings approaches for supply chain and benefits that overcome challenges in the execution of the costs savings program and enhance its benefit to both the Government and contractor. **Appendix 1** presents a crosswalk of each contract-identified requirement for the MTP and the location of each requirement within the MTP.

The MTP is a companion document to the Cost Reduction Proposal (CRP), which is submitted and updated separately and includes a description of the

specific cost savings initiatives to be implemented. The MTP provides an overview of the cost savings program and includes the timeline of projected savings for the potential 10-year term of the contract. The MTP serves as the CNS guideline to develop its annual savings targets that are implemented through the CRP and the associated initiatives. **Figure 1** identifies the CNS approach to the merger and transformation process, including executing the consolidation of two

sites under a single management structure, transforming site operations to create a more efficient and sustainable enterprise, and practicing continuous improvement.

The MTP is just one of several documents to describe how CNS will execute its cost savings program in partnership with NNSA over the life of the contract. CNS recognizes that the budget, scope, and specific actions to achieve savings will change over time. As such, CNS expects that the MTP will need to be revised periodically as budget and scope changes affect the underlying values and timing which make up the projected cost savings. The MTP will reference a number of other plans, policies, procedures, and tools which will be used to control and modify the baselines as they change over time. These include the Annual Controlled Baseline (ACB), CRP, the CRP Policies and Procedures (and its associated Cost Reduction Initiatives), Enterprise Risk Management, as well as the Change Control Process (and the associated Change Management Council) that will govern changes to these inputs.

CNS is committed to fulfilling expectations set in place by NNSA, including: mission fulfillment, safety standards, schedule compliance, and vigilant security. Additionally, CNS has charged its leadership at the highest levels to bring a sense of urgency to the effort that will foster innovative approaches to increase cost efficiency in serving NNSA. The leadership's cost efficiency goals intend to sustain NNSA operations and solidify the viability of the Pantex Plant and Y-12 National Security Complex for future administrations and national needs, both apparent and unforeseen. As CNS leadership creates the foundation of an organization built to secure NNSA's objectives, they will set in place a top-down structure inculcated with the purpose of honoring those commitments.

2.0 CNS APPROACH TO MERGER AND TRANSFORMATION

CNS is a partnership of organizations with shared values and aligned goals. These shared values are embedded in the CNS corporate culture and reflected in its description of the 'four imperatives': safe, secure, zero defects and deliver as promised. As their name implies, these four imperatives are central to the success of CNS and the Pantex/Y-12 merger and transformation, and they are an absolute necessity to satisfy NNSA requirements. As CNS approaches the issue of merger, transformation, and cost savings, these four imperatives are key in achieving not only CNS goals, but NNSA goals as well. This challenge demands an approach that is not just different from the previous management entities, but a superior approach set apart by unmatched expertise and resolve.

CNS recognizes the NNSA vision of operational efficiency, and is committed to streamlining site operations to establish higher productivity and realize lower unit delivery costs without impacting safety and security. To achieve these results, CNS will share resources that are more mobile, use consistent approaches to the maximum extent practical, and install a leadership team that is fully aligned with NNSA goals. Throughout the process, CNS will manage the merger and transformation of the Pantex Plant and the Y-12 National Security Complex without negatively affecting mission delivery.

To enable the merger and transformation activities, CNS is leveraging its corporate capabilities and approaches, including a number of tools and experiences that the CNS partners – Leidos, Bechtel, ATK, Search on Command (SOC), and Booz Allen — have used with success on other contracts and internal corporate initiatives. For example, CNS specifically designed its Performance Enterprise System (PES) by combining the best practices of Bechtel's Lean Six Sigma (LSS) program, Lockheed Martin's Operating Excellence Program (LM21), and ATK's Performance Enterprise System (PES) to create a tailored continuous improvement program for this contract.

Beyond tools, CNS brings a wealth of corporate experience and expertise to run NNSA's production enterprise with the same focus we use to run our businesses. Our confidence is based on the quality of our leadership team and in the success of the process brought by Booz Allen that has been proven in over 600 merger and transformation efforts. This confidence is demonstrated by the fact that Booz Allen is fully incentivized to achieve this end state — it earns its fee only from the CNS share of the cost savings it helps generate. Likewise, CNS is also fully incentivized to deliver the savings and guard against unintended consequences.

Through experience, CNS knows that merging effectively is problematic by virtue of the changes needed in both cultures and business systems. Sustaining initial gains made through the mergers increases the challenge. Studies show that 50% of all merger/acquisitions fail to deliver the established goals. CNS brings extensive merger-transformation experience and has designed a comprehensive approach to keep the organization focused on achieving and sustaining the goals laid out in NNSA's procurement and the vision for the future Nuclear Security Enterprise. Our structured approach will help CNS ensure:

- Merger activities across sites are done thoughtfully and will not only deliver near-term cost savings, but will set the stage for enhanced operational performance and safety that are sustainable.
- Organizations are right-sized to meet the needs of the combined enterprise, and, where necessary, processes are transformed through redesigned work approaches.
- People in the consolidated organization are proactively and positively engaged as critical stakeholders

Figure 2 depicts the Booz Allen Objective Driven Change Framework that CNS will implement to provide rigor and structure to our merger and transformation activities. This approach has been proven on hundreds of post-acquisition mergers and business transformations; each step of the process is supported by a suite of effective tools and guides that support planning, implementation, monitoring, and reporting. The framework includes four logical steps: setting the vision/mission for the desired change, creating understanding and consensus for the change, carefully laying out the blueprint for the change, and executing the change. Most importantly, the framework leads to sustained cost reductions while preserving mission accomplishment because execution of the mission is always the highest priority.

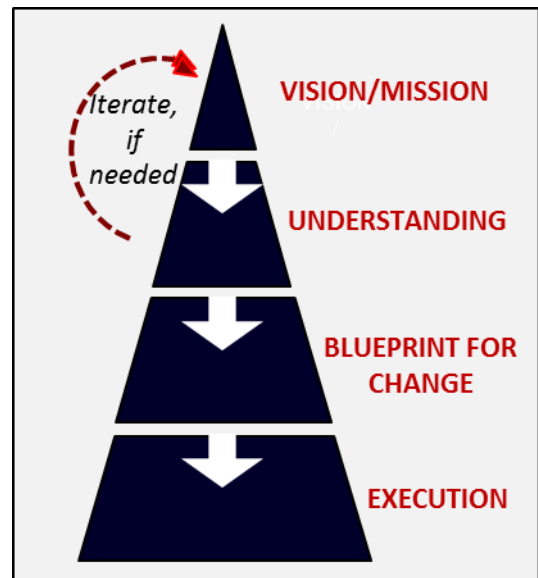


Figure 2 – Objective Driven Change Framework

One of the first activities CNS completed under implementation of the Objective Driven Change Framework was the design of the CNS organizational structure. CNS started by setting the goals for the structure that included:

- Keep a strong focus on the missions. The missions are the reason for NNSA, the sites, and the workforce.
- Clearly translate the desires, expectations, and goals of the customer into actionable objectives for every level of the organization.

- Facilitate consistency of approaches across sites, programs, projects, teams, and work groups.
- Enable the merger of the two sites under a single contract, allowing consolidation and cost savings where possible without negative impact to the mission while allowing for future site expansion at NNSA's direction.
- Align authorities with accountabilities to empower decision-making at the lowest effective level.
- Increase employee engagement to achieve organizational goals such as efficiency; continuous improvement – enhanced security, upgraded safety, enriched quality, and compliance; and maximize value to the customer.

During this vision and mission stage, CNS set a critical standard by identifying the most advantageous and realistic future state of the organization. CNS has examined necessary criteria such as the capabilities demanded and finances required for the future organization. A coherent baseline was established and gaps from the current position to the future position were interpolated. This will allow CNS to ensure that a proper mix of crucial skill sets remain throughout the merger to maintain continuity, uphold current obligations, and ensure the viability of future work.

The organization, as shown in **Figure 3**¹, drives efficiency through a matrix structure. The organization is built around a core of Mission Delivery (i.e., Pantex and Y-12 Operations) with staffing tightly controlled in these areas to mitigate any risk to safety, security, and quality. The supporting organizations are right-sized to ensure that Mission Delivery is fully enabled to perform, have the requisite security in place, and have appropriate oversight to ensure all requirements are met. Because of their importance, we are making minimal changes to Mission Delivery Organizations under the consolidated contract. In future years, in cooperation with NNSA and drawing on the full knowledge of the incumbent workforce, we will use value stream mapping to delineate each step of each mission, handoffs between sites, overlapping responsibilities, and interactions with the design labs. We will then identify which support and oversight functions “touch” those value streams and how they contribute to success. This approach will enable us to recommend additional cost savings initiatives that will take transformation to the next level by optimizing the direct mission value stream.

¹ Since the organizational structure is subject to change, the key elements that will remain relatively consistent are the executive-level structure and their secondary-level structures (e.g. Mission Engineering, Mission Assurance, etc.). The tertiary structure may be subject to change as staff continue to transition and management is finalized; for example, Ethics and Internal Audit were previously organized under Mission Assurance but now stand independently.

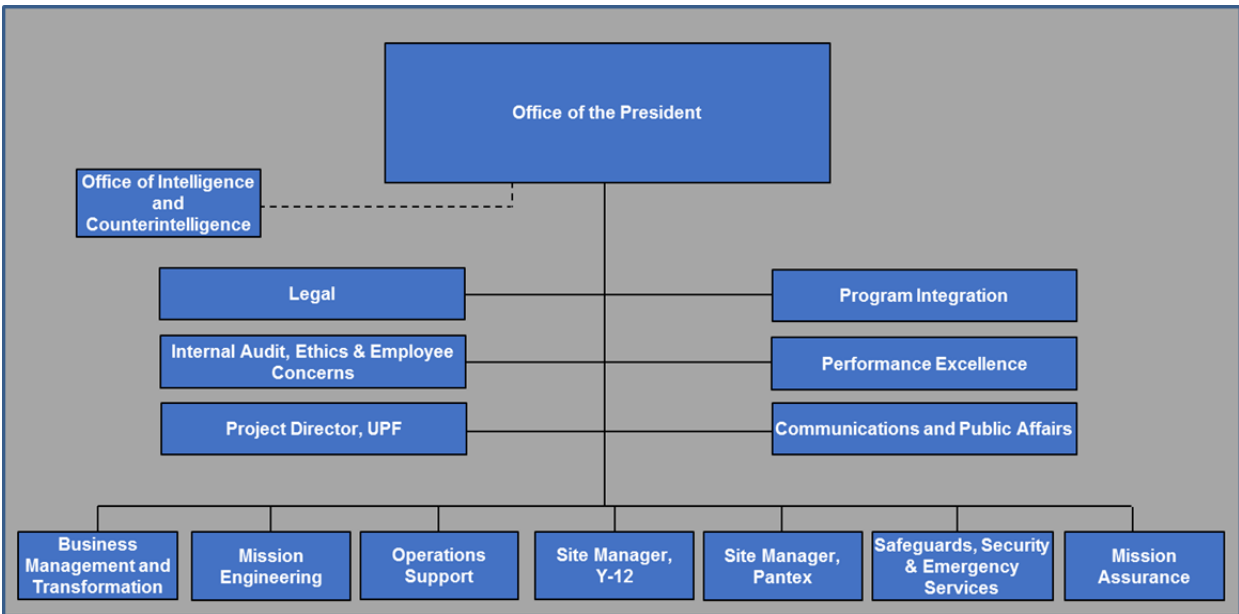


Figure 3 – CNS Organization Chart

As previously noted, there will be zero negative impact to the mission given the design of the CNS approach to merger and transformation. Central to this mission-oriented objective is developing and retaining critical skills. The **CNS Staffing Plan**, submitted April 8, 2014, provided our initial approach to ensure that we will at all times have the skills needed to accomplish the mission of the Pantex and Y-12 sites. This Staffing Plan described the process and criteria by which CNS has identified current and future skill sets to achieve the mission and goals of NNSA and CNS. This ongoing process will operate in concert with the annual ACB process and merger and transformation activities to ensure that the critical skills necessary to maintain capabilities are not adversely impacted by the transformation and cost savings efforts.

2.1 Critical Skills Retention and Development

CNS will ensure that critical skills necessary to maintain capabilities are available consistent with contractual Statement of Work Requirements. CNS defines Critical Skills as the skills required to support the unique DOE mission that, based on market demand, are difficult to recruit, retain and/or develop. CNS identifies and tracks all skills using the Common Occupational Classification System (COCS) in accordance with DOE O 350.1 Contractor Human Resources Management Programs, and Federal Register, Vol. 61, No. 44, p. 8600.

The Commission on Maintaining United States Nuclear Weapons Expertise (a.k.a. “Chiles Commission”) submitted a report in compliance with the National Defense Authorization Acts of 1997 and 1998. These acts directed us to “Develop a plan for recruiting and retaining within the Department of Energy (DOE) nuclear weapons complex such scientific, engineering and technical personnel as the Commission determines appropriate in order to permit the Department to maintain over the long term a safe and reliable nuclear weapons stockpile without engaging in underground nuclear testing.” CNS accomplishes this through workforce planning with an emphasis on critical skills as defined above.

CNS recognizes that the workforce, including its composition and capabilities, is an essential component of the nuclear production sites and the national asset that they represent. CNS uses a strategy for identifying the appropriate skill mix needed to accomplish current and future mission

work and has established a variety of methods to attract, recruit, develop and retain those skills. This strategy features the development of organizational baselines and staffing models to better define and document the skills necessary for accomplishing the mission. The strategy also includes the development of increasingly sophisticated attrition models to inform the planning and transformation efforts. This comprehensive planning provides a dynamic map to workforce restructuring, realignment, staffing, and employee development. CNS continues to partner with universities and military job fairs to provide a pipeline for the critical skill needs for future missions. In addition, compensation and benefits are monitored to stay competitive for talent in the lean technical market.

2.2 Managing the Transformation

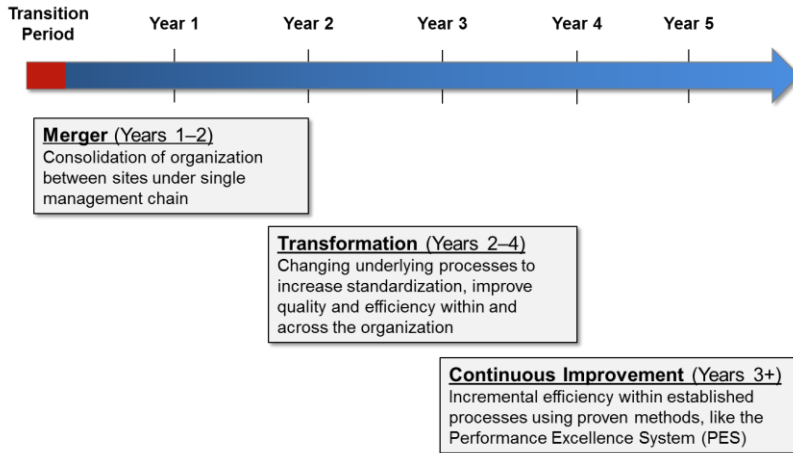


Figure 4 – Transformation Phased Approach

In order to build a consensus around the transformation vision, CNS is developing a case for the changes necessary to enable the organization’s long term viability and success. As shown in **Figure 4**, these changes follow a logical sequence of activities related to the merger of the sites (Years 1-2), transformation of the underlying business processes (Years 2-4), and continuous improvement initiatives (Year 3 and beyond). As part of the contract transition activities, CNS socialized necessary organizational changes with

stakeholders (including regulatory interfaces) and translated the vision into specific targets that can be communicated to managers and staff. CNS will maintain relationships and regulatory interfaces and recognizes the importance of assuming responsibility for permits with local, state and federal entities, and other DOE offices. The CNS leadership structure has identified its regulatory interfaces, has engaged in dialogue during the Transition Phase, and will continue to interface during contract operations. If disparity exists between the vision and mission and these understandings, CNS will iterate to further develop the vision and mission, creating consensus and eliminating potential obstacles to implementation of the cost savings program.

As the vision and mission are socialized and consensus is developed within the organization, a blueprint for change emerged that supported the development of the initial CRP submitted upon contract turnover on July 1, 2014. This blueprint for change serves as an internal management tool to help understand how the future organization will operate, what new capabilities will be built, how financial targets will be accomplished, and how the accomplishments will be measured. The future organization will be appropriately equipped and resilient to meet the demands inherent in its operational ecosystem. This blueprint will illuminate steps the organization’s management must take toward accomplishing its goals.

The blueprint shows how CNS will perform short-term re-engineering of business processes to ensure that all commitments are honored through the transformation. To complete the transformation, CNS will lead a long-term restructuring process to permanently equip the organization for success. Through execution and for the duration of the contract, CNS will track the organization's accomplishments. The accomplishments will create substantial increases in the organization's financial capabilities and operational efficiency, which will allow CNS to reduce costs in line with NNSA goals and the cost savings proposed by CNS in response to Solicitation No. DE-SOL-0001458. These efficiencies will be formally documented by Cost Reduction Initiatives (CRIs) and their associated activities to provide transparency and traceability of savings to the NNSA.

CNS also brings a vast reach-back capability to engage specialists and experts from parent organizations to address specific issues within multiple fields of expertise. This commonality lends itself to a greater leveraging of commercial best practices where the corporate experience of the CNS companies can be leveraged. CNS recognized this opportunity and installed a management team with a powerful blend of NNSA and commercial expertise and experience. Through the combined experience and networks of these leaders, CNS will be proactive in bringing the appropriate corporate capabilities and resources to enhance mission delivery and fulfill CNS' commitment to run the sites like a business. Further, CNS has established a corporate Board of Managers with senior executives from the parent companies to ensure that these commitments are met. The parent-companies of CNS are poised to augment CNS with additional resources to cover high-demand periods during the contractual period of performance. These resources are proven effective through the parent companies' multiple diverse contracts, both historical and ongoing.

In addition, CNS intends to install a Technical Advisory Board (TAB). The TAB serves as an independent resource to advise the CNS on strategic direction, formation of a more effective production enterprise, nuclear production challenge resolution, and risk assessment.

3.0 EXECUTION OF THE MERGER TRANSFORMATION PLAN

As noted above, the MTP includes the timeline of projected cost savings and serves as the basis for developing the CRP for the contract. CNS has developed and provided annual updates to the CRP and will continue to do so at least annually through a formal Change Control Process (CCP). The CRP will include information about the Cost Reduction Initiatives (CRIs) that CNS proposes to execute during the upcoming year in order to meet or exceed the saving targets proposed in the MTP. These CRIs will be progressively elaborated throughout the year as part of the trimester reporting process.

The basis of the cost reduction activities are the individual CRIs that describe the actions and expected savings outcomes undertaken by CNS. CNS provides annual revisions to its CRIs as part of the CRP process. If individual CRIs are not approved for execution, CNS will re-examine the CRIs in question and re-submit revised and/or additional CRIs to make up the shortfall. CNS anticipates that it can successfully iterate the CRI process as needed if some initiatives are not implementable because our current savings estimates are conservative in nature and do not yet capture all of the savings potentially available to NNSA. Should alternative initiatives not be sufficient or timely enough to generate the necessary savings, CNS may seek adjustments to the overall projected savings. Such changes would require agreed upon adjustments to the cost savings curve as well as the CSIF table (and associated share and duration assumptions). CNS also expects that changes in the ACB, in terms of budget or scope, may also require revisions to the MTP on a periodic basis.

It is also understood that there is inherent risk in execution of a CRI and that CNS and NNSA both own this risk. Such elements of risk may be incurred during:

- Implementation of the CRI
- Determination of the cost of implementation
- Ability to demonstrate savings

CNS understands that such risk makes the Enterprise Risk Management process (outlined in Section 5) as well as governance of the merger and transformation activities even more critical.

4.0 GOVERNANCE OF THE MERGER AND TRANSFORMATION ACTIVITIES

Since we will have multiple merger and transformation initiatives staged for implementation or in the process of being implemented at any particular time, CNS created a system of management and controls in the stewardship of the organization. Governance will foster trust and confidence between NNSA and CNS by creating shared expectations, appropriately delegated authority, and accountability. Governance processes will be consistent with defined contractual requirements and NNSA governance documents, focusing on transformation activities that maximize the ability to complete the mission in a way that ensures effective and efficient stewardship of the taxpayers' money. These governance processes will streamline operations and reduce costs to maximize mission accomplishment through a common understanding of expectations and performance accountability, supported by a strong Contractor Assurance System (CAS). Governance teams include the Change Management Council (CMC), Organizational Health Review (OHR), Strategy Council, Leadership Council, Resource Council (RC), Risk Review Board (RRB), and Executive Leadership Team (ELT). These teams ensure alignment of objectives among CNS organizations and with the CNS Business Strategy; accommodate planned and emergent changes to federally supplied funding; ensure CRIs are individually and collectively consistent with CNS safety, security, mission delivery and quality expectations; and seek continuous improvement in CNS cost efficiency. The teams control the coordination, governance, configuration management, and change control of all processes. They deliver a common framework for all documentation for a simplified "single-process" approach. Not only do the governance teams approve individual cost savings plans, they also look for potential synergies and conflicts between multiple efforts and protect against unintended adverse implications that might result from implementation of the initiatives. When CNS accepts an initiative and it is approved through the NNSA scope authorization process, line management takes the actions needed to accomplish it without negatively impacting the mission.

The RRB meets periodically to review risk mitigation plans and assess the impact of ongoing initiatives on the safety, quality, and productivity of the consolidated organizations. OHR meets monthly to provide organization status including risk mitigation, project execution, coordination with other NNSA sites, as well as reviewing top level organization metrics. CNS currently has governance charters, policies, and procedures in place for managing cost savings. In the latter years of the contract CNS will pursue ISO 9001-compliant tools allowing the RRB to monitor and control process drift, perform regular follow-up, and provide risk-informed oversight. NNSA is encouraged to participate in most CNS governance and oversight meetings to provide the customer perspective.

CNS plans to use the CMC as the primary governance mechanism for reviewing and approving scope changes and the Resource Council for cost savings initiatives. However, CNS also recognizes that there may be circumstances where urgent scope changes may need to be implemented in advance of the CMC meetings and approval process. In such circumstances, CNS will account for changes by identifying whether the change was directed by CNS or NNSA and, if NNSA directed the change, CNS will document the name of the individual that provided direction.

Merger and Transformation Plan

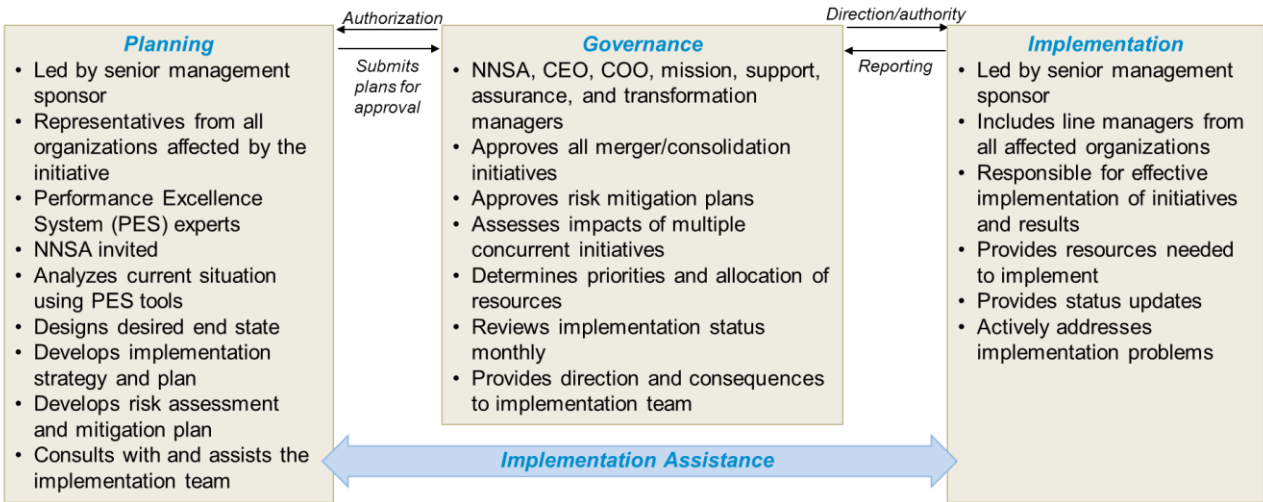


Figure 5 – Management and Governance of Change Initiatives

This information will be made available to the Contracting Officer. Changes credited to the Government that are unsupported may be a basis for rejection.

CNS uses a graded approach to managing initiatives based on the complexity, scope, risk, and timing of each initiative. Initiatives with broader reach across the enterprise and greater risks of implementation will receive greater involvement and oversight from the OHR and RRB and a greater allocation of resources for planning and managing the initiative. In all cases, the same tools are used—the Performance Enterprise System (PES is an enterprise-specific continuous improvement program) tools and the experts available through the Transformation organization will bring process discipline and the outside perspective that we have found is needed to ensure that planning and implementation lead to real and permanent cost reductions.

CNS recognizes that it is not cost effective or appropriate for NNSA to review every Baseline Change Request (BCR), so changes exceeding a certain threshold will be submitted to NNSA for review. The approval process with NNSA is included in the NNSA Cost Savings Program Process, Procedures and Requirements for Contract DE-NA0001942 Clause I-19 Cost Reduction NPO-Desk-Aid-006, Rev. 0 dated January 2017. The NPO Desk Aid expands upon how CNS will work with NNSA to meet the requirements outlined in I-19(e) of the contract.

To implement the initiatives we have identified, as well as any identified in the future, we will use the process defined in **Figure 5**. This process recognizes that there have been and probably will be different groups developing and implementing merger/transformation ideas. Our Performance Excellence organization serves as liaison and intermediary between these groups. The figure shows how these planners, implementers, and change managers work together to ensure that we deliver on our transformation goals without creating unintentional conflicts or impacting performance in other areas. Our merger and transformation initiatives are managed within the various CNS organizations with clear lines of responsibility and accountability.

The vice president equivalent or their designee in each CNS organization assesses the current situation, designs the desired end state, develops the implementation strategy and plan, and develops the risk mitigation plan for the initiative. The risk owners work with the Performance and Risk Management organization to assess the adequacy of the risk mitigation plan and minimize the

potential for concurrent initiatives to affect the ability of the enterprise to execute its mission safely and securely.

4.1 PES Continuous Improvement

Performance Enterprise System (PES) is CNS's strategy to drive improvement, efficiency, and cost savings across the organization. The PES model relies on a strong sense of **Enterprise Alignment** achieved by a strategy deployment focused on delivering **Customer Value** and **Business Results**. Execution translates goals and objectives into actions and metrics at every level of the organization while providing for regular structured follow-up and escalation. The following are the key components of the PES program which are detailed in this section:

- Bottoms-up Responsibility
- Lean Six Sigma (LSS) Office Roles and Responsibilities
- Mission Area Roles and Responsibilities
- Tailored Communication and Deployment
- PES linkage with the MTP/CRP

As part of its strategic deployment, PES connects with the CNS strategic objectives and the annual Cost Reduction Proposal to ensure flow down of goals and objectives. Its mission is focused on engaging employees in order to identify, refine, and implement process improvements to deliver customer value with uncompromised safety, security, and quality. PES is evolutionary to existing strengths at Pantex and Y-12, and yet is unmistakably capable of providing a framework to engage the entire organization to deliver on continuous improvement commitments. PES provides an approach to help achieve near-term transformation goals (integration and cost-efficiency as provided in the MTP/CRP) and long-term, sustainable continuous improvement. The effective deployment of PES across the CNS enterprise, coupled with existing improvement methodologies, will enable CNS to identify and proactively address opportunities to streamline processes and eliminate redundant technical and business operations.

While PES utilizes Lean Six Sigma (LSS) methodologies to identify, evaluate, define, and implement process improvement, from a strategic perspective, it functions as one CNS system and one CNS voice with all employees at the center of the model engaged in continual improvement of their work in collaboration with leadership and supported by LSS experts. Through the engagement of employees and with the use of expert LSS facilitators, as well as LSS tools and workshops, CNS will identify cost reduction and efficiency improvement opportunities, as well as facilitate integration of plant-specific processes into single enterprise-level processes. CNS will coordinate, launch, and manage improvement projects that include Value Stream Maps (VSMs), Kaizens, Rapid Improvement Activities, and business cases to drive improvements and integration across CNS. The LSS facilitators will use appropriate tools from their toolkits, regardless of the source. The approach and tools are to be applied in an optimal manner based upon the scope to be accomplished.

The PES program will maintain the same Y-12/Pantex expert resources (e.g., the Master Black Belt, Black Belt, and Yellow Belt facilitators) while enabling employees to have the proper authority and additional ability to improve their work. Cross-functional and cross-plant Continuous Improvement (CI) teams will be utilized to ensure the correct process performers and stakeholders are involved in arriving at an optimal solution. These teams are assembled at the discretion of line management (at various levels) to address challenges faced by the workforce (i.e., completion of merger/transformation tasks, achieving cost efficiencies, safety/security/quality enhancements, and time/waste reductions). The CI team participants will be determined by the scope and complexity of the task. The tasks will have a defined starting point and ending point to enable team members

and line management to measure the success of the initiative. The team will analyze the current situation/process, determine changes that are needed, and present the results to affected line management for approval. Implementation responsibility rests with line management (who owns the process and resources for change). The use of CI teams empowers line management, at all levels, to meet their assigned mission delivery goals while reducing costs to accommodate challenging budget targets.

Business leaders will be used as a key resource for employees such that they will be able to remove old and new process obstacles in order to improve their work life. Essentially, PES is a mental model on how staff will think about and act to improve their work while doing their work, and, ultimately, while being recognized for their efforts. See **Figure 6** for a visual depiction of this approach. It is continually driven by CNS employees, stays in alignment with CNS’s strategic vision, and self identifies improvement opportunities. **Figure 7** illustrates the integrated approach for cost savings.



Figure 6 – Performance Enterprise System Process

Integrated Approach for Cost Savings

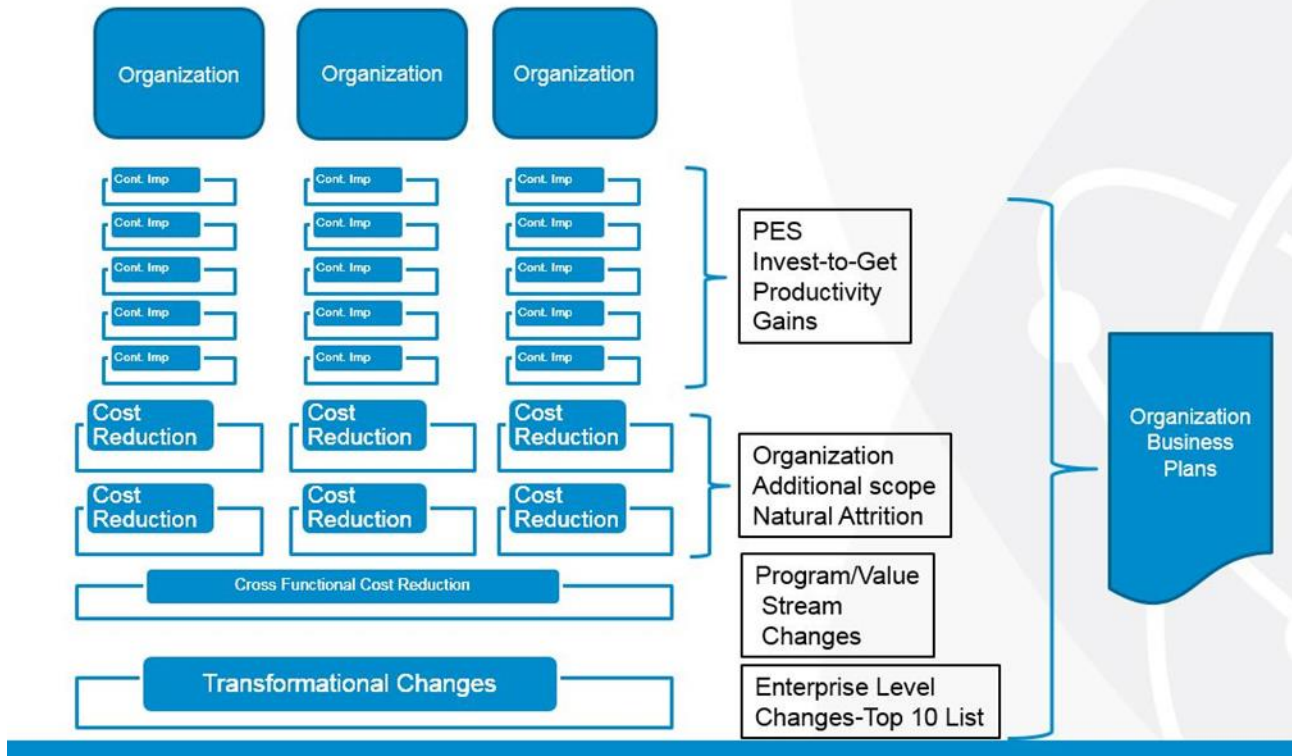


Figure 7 – Integrated Approach for Cost Savings

The LSS Office will develop intellectual capital and build standardized yet flexible structures and processes to not only launch and lead improvement efforts independently, but also to assist business leaders in executing their individual CRIs and other operational improvement efforts². Moreover, it leverages current “Best-Practice” corporate tools and processes taken from all of the CNS partners. CNS will institute a Fellowship Program, as described in the proposal, which will engage our employees in expanding their horizons, provide exciting opportunities for growth, expose them to new ways of getting work done, and spike the organization with change agents.

Relevant and verifiable metrics will be used from inception to completion in order to promote continuous evaluation to identify merit, track progress, and establish visibility. The traditional use of only “output” metrics, such as “tasks completed,” will be expanded. Both “Quality” and “Performance” metrics will be developed which not only focus on “outputs,” but also focus on inputs as well as leading indicators to better mitigate issues before they impact final production. In addition to the traditional simple “count” metrics, “efficiency” metrics will be developed not only to manage the volume of work and production, but also to show how efficiently CNS works. This is critical to understanding our true performance levels.

² The CRP Policies and Procedures document provides additional explanation on the linkage between PES and implementation of the CRIs.

To encourage immediate “buy-in” from the CNS stakeholders and workforce, metrics, target baselines, incentives, training, etc., will be used to facilitate a bottoms-up approach in order to encourage employees to engage in the PES program. In the future, PES will generate support by training staff to ensure they are prepared to collaborate in the improvement process. For example, staff at all levels will be encouraged to complete appropriate LSS training for their specific position and then collaborate with their leaders and team members to actively search for improvement opportunities while ensuring mission success. Successful LSS projects and events will be celebrated throughout the organization and institutionalized and replicated across not only the individual locations, but across both Pantex and Y-12, where possible, so that the organization learns as quickly from one another as possible. In addition, a program for collection, disposition, and execution of employee improvements for cost efficiencies and removal of frustrations will be employed.

While PES will be critical to continuous improvement and alleviating roadblocks to efficiency, it should be noted that there is a significant organizational culture aspect to PES. The LSS Office will work closely with senior leaders and stakeholders at all levels. LSS will provide reach-back support for mission efforts as well as other pro-active support such as conducting formal LSS training, conducting informal brown-bags and workshops, and leveraging all-hands meetings and other forums to keep the organization energized, focused, and involved in driving improvements. PES will encourage employees to engage in the program at many different levels of effort (LOE), allowing them to be trained in the continuous improvement concepts and take ownership for their ideas. Ultimately, at the end of the improvement projects, results will be shared with all participants, employees, and stakeholders, ensuring transparency in the program. As the program is executed, it will influence organizational culture by emphasizing elements such as employee/wellness initiatives, facility improvements, special recognition awards, etc. showing a true cadre of employee focus and process improvement.

In order to execute PES and ensure that all parties are engaged, a comprehensive deployment approach continues to be refined. To ensure a consistent message tailored to target audiences in all parts of the organization, various methods are being utilized to share PES information and successes such as leader communications, all hands messages, FAQs, SharePoint sites, newsletter articles, project updates, and customer communications.

5.0 ENTERPRISE RISK MANAGEMENT

CNS is aware that the merger of operations at the Pantex Plant and the Y-12 National Security Complex, the streamlining of technical and business operations, and implementing a cost reduction program could increase the likelihood or consequence of an adverse outcome. CNS’s Enterprise Risk Management Office (ERMO) is actively engaged with risk owners and stakeholders to proactively, and continuously manage these threats, while at the same time identifying and exploiting opportunities to improve operations, enhance mission accomplishment, and achieve cost savings.

ERM processes are intended to deliver improvements in the following business categories.

Efficiency

- More efficient utilization of limited resources due to standardized processes, standard tools, and matrix management
- Focus on lower cost prevention strategies rather than higher cost reaction strategies
- Reduced likelihood of operational loss

Decision Making

- A more realistic view of risk due to a focus on the interrelationship and interdependency of many risks as opposed to single, isolated risks
- Improved decision making, planning, and prioritization through the use of Risk Based Decision Making
- The ability to aggregate and disaggregate risk supports cost-benefit and other analyses

Communications

- Fewer surprises (more predictable) due to the proactive management of threats and opportunities
- Rapid notification of emerging risk through a formal escalation process
- Rapid assessment of risk profiles through standardized reporting

Planning

- Assisting organizational management to understand the potential severity of risks, and to develop focused response plans in line with the organization's risk appetite and tolerance
- Improved contingency planning to guide the organization through crisis should a high impact event occur
- Reduced crisis management and firefighting

Performance

- Improved return on investment by placing emphasis on the identification and management of opportunities
- Reduced probability of poor organizational performance

As powerful as ERM is, it is important to remember that it is not a crystal ball.

The risk management process will be fully integrated into CNS baseline management. Risk shall be a standard topic in all progress review meetings, ensuring constant management attention, action, and visibility to CNS and NNSA management.

Organizational managers are accountable for owning the risks that affect their work scope responsibilities and for systematically working to reduce or eliminate threats and realize opportunities.

When only the word "risk" appears, it is implied that both components of risk are included – threats and opportunities.

5.1 Enterprise Risk Management Processes

CNS's ERM processes are compliant with the ANSI (American National Standards Institute) national standards for risk management, project management, program management, and portfolio (enterprise) management. These standards have been developed in collaboration with industry practitioners from around the globe, based on current trends and practices that make their organizations successful. The output of this collaborative process is the documentation of currently recognized "best practices".

5.1.1 Operations, Project and Program Risk Management

The risk management process that will be employed for operations, projects and programs is illustrated in **Figure 8**. Each process is further elaborated in CNS Enterprise Risk Management Command Media.

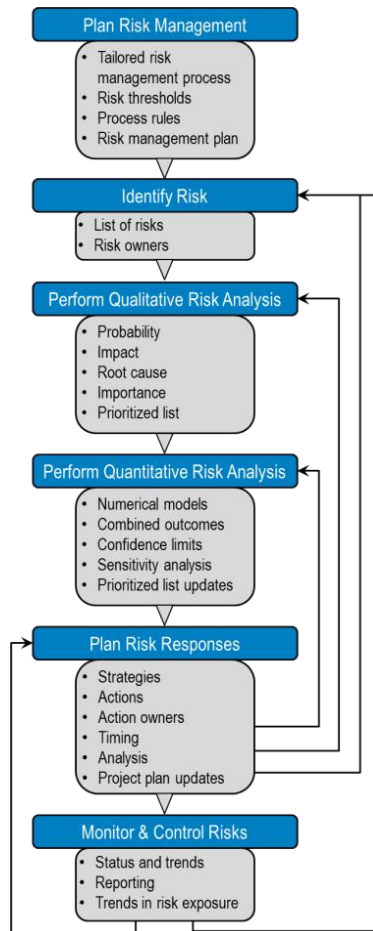


Figure 8 – Operations, Project and Program Risk Management Process

The emergent nature of risk requires the risk management process to be iterative in nature. During the “Plan Risk Responses” phase it may be necessary to return to earlier process steps due to the likelihood of residual risk after risk response is employed.

5.1.2 Portfolio and Enterprise Risk Management

The Enterprise Risk Management Office (ERMO) will also facilitate the management of risks at the portfolio level. While a program or project is concerned, for the most part, with risks and issues that arise inside the specific program or project, portfolios are concerned with (1) maximizing financial value of the portfolio, (2) tailoring the fit of the portfolio to the organizational strategy and objectives, and (3) determining how to balance the programs and projects within the portfolio given the organization’s capacities and capabilities. The objectives of Portfolio Risk Management are to increase the probability and impact of positive events and to decrease the probability and impact of events adverse to the portfolio value, the strategic fitness of the portfolio, and the balance of the portfolio. The portfolio risk management process is illustrated in **Figure 9**.

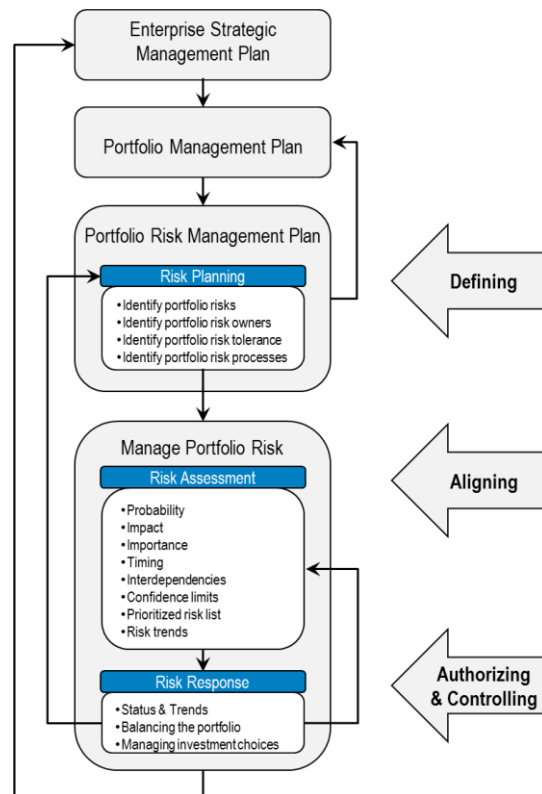


Figure 9 – The Portfolio Risk Management Process³

5.2 Conducting Risk Analysis

Risk may be analyzed using a number of qualitative and quantitative assessment tools and techniques. Qualitative analysis is generally performed on all risks. In some cases, depending on the nature and severity of the risk, and the availability of risk data, qualitative analysis may be excluded in favor of quantitative analysis.

Qualitative risk analysis is the process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact. After the qualitative risk analysis is complete, a qualitative prioritization will be done using a probability–impact (PI) matrix, scored using ERM Process Description E-PROC-0025, and the PI Matrix format shown in **Figure 10**.

The individual cells of the risk matrix are assigned a risk score, which is used for risk prioritization. Risks are also prioritized according to the colored severity bands to which they belong – red, yellow and green.

³ The Project Management Institute, The Standard for Portfolio Management, Third Edition, (Newtown Square, PA: Project Management Institute, 2013), p. 121

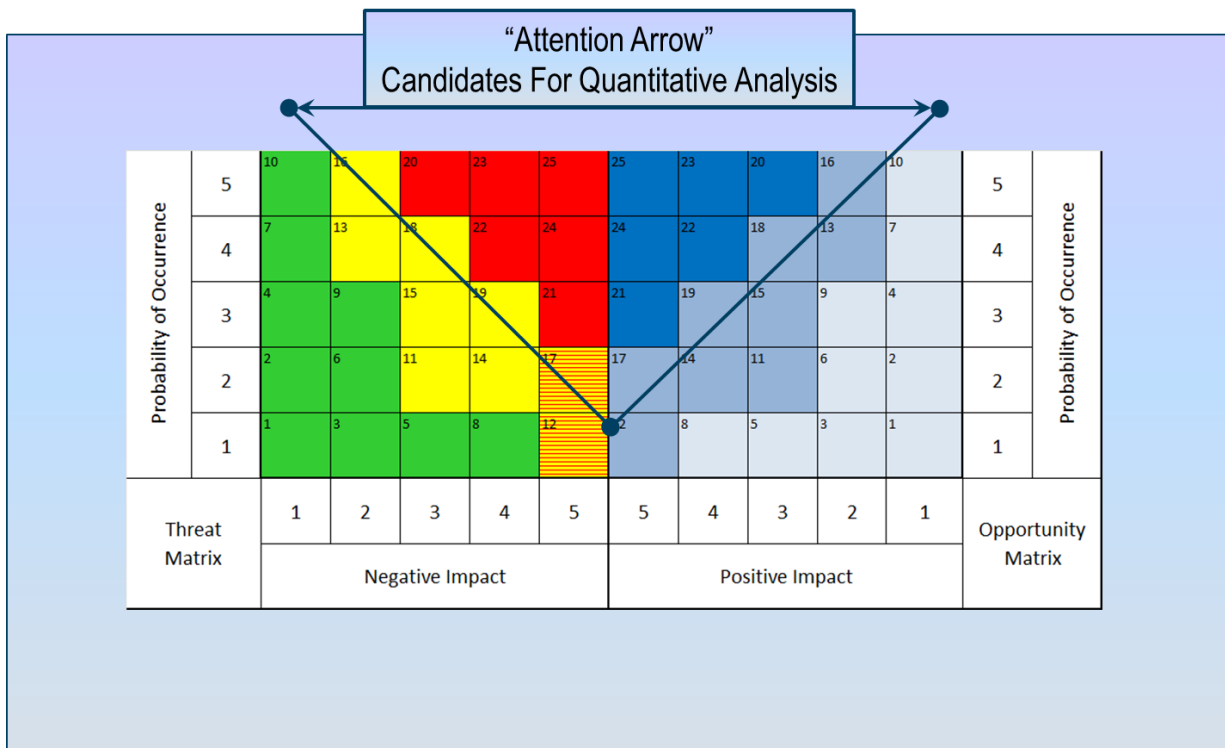


Figure 10 – The Probability-Impact Matrix Showing The “Attention Arrow”

The PI matrix is a fast and relatively inexpensive technique for establishing priorities, but it is a blunt tool that does not always accurately represent risk.

For those threats and opportunities that are found inside the “Attention Arrow” at the center of the matrix (see **Figure 10**), it is recommended that a more accurate, more extensive quantitative risk analysis also be conducted. Quantitative analysis is not warranted for risks that are not in the Attention Arrow. Most of these risks will be “accepted” (refer to section 5.3) and monitored for change.

A mitigation plan is developed for each risk which is not avoided, transferred or accepted (refer to section 5.3). In like manner, opportunities shall have a plan for exploitation. Low probability, high impact threats (e.g., risk score of 12 and 17 on the PI matrix in **Figure 10**) should not be dismissed as requiring no further action, due to the low probability of occurrence. Because of the severity of the impact that these risks present, development of a contingency response plan should be considered, as well as additional quantitative analysis.

The Qualitative Risk Analysis should answer the following questions.

- What is the risk?
- Why might it occur?
- How likely is it? (probability)
- How bad/good might it be? (impacts)
- Does it matter?
- What can we do?
- When should we act?
- Who is responsible?

5.2.1 Quantitative Risk Analysis

Quantitative analysis is performed on risks that qualitative analysis indicated as having the potential to substantially impact organizational objectives.

The structure of quantitative risk analysis is illustrated in **Figure 11**. Quantitative techniques include but are not limited to the following:

- Utility theory
- Decision trees
- Sensitivity analysis
- Force field analysis
- Statistical simulations (Monte Carlo analysis)
- Failure methods and event analysis

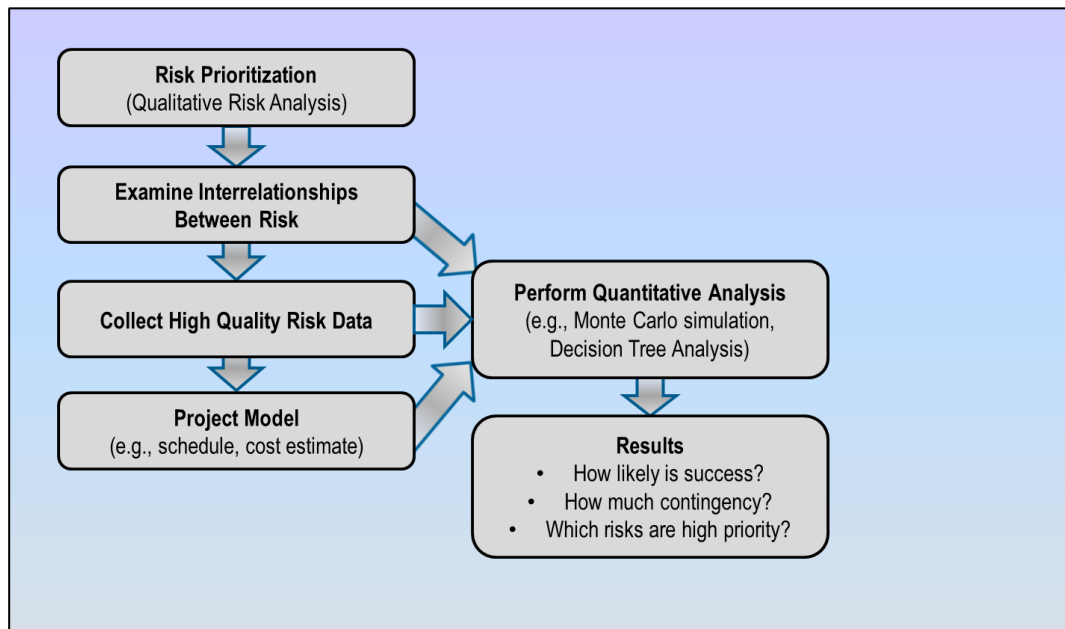


Figure 11 – Structure of Quantitative Risk Analysis⁴

5.3 Risk Response⁵

A risk response strategy will be developed for each risk. Strategies for threats (negative risks) include:

- **Avoid.** Risk avoidance may be the most cost-effective strategy. It is most effectively developed during the early phases of the program or its components.
- **Transfer.** At the program level, risk interdependencies make the transfer of risk problematic. Careful evaluation for intentional exclusion or risk, or unintentional inclusion is necessary.
- **Mitigate.** Taking early actions to reduce the probability and impact of the risk on the program.

⁴ Practice Standard for Project Risk Management, p. 41

⁵ Project Management Institute, The Standard for Portfolio Management – Third Edition. (Newtown Square, PA: Project Management Institute, Inc., 2013), 208

- **Accept.** Some risks cannot be eliminated or addressed through a viable strategy. These risks may require acceptance by not acting and dealing with the threats as they occur.

Strategies for opportunities (positive risks) include:

- **Share.** Outsourcing and making better use of external partnerships may be required in order to capture the opportunity.
- **Exploit.** Positive impacts to the program are possible, provided the necessary resources to realize the benefits exist.
- **Enhance.** Affecting key drivers to increase the expected value of the opportunity.
- **Accept.** This strategy indicates that the program team has decided not to change program plans and will deal with the opportunities as they occur.

The risk response plan establishes how the project will alter the probability of a specific risk and the size of its Impacts by detailing the responses that will be carried out for the risk.

Despite planning efforts, a risk condition or event may still occur. Some risks, depending on their nature and severity, should they be realized, will require the establishment of a contingency plan, which is developed in anticipation of the occurrence of a risk, and is to be executed only if a predetermined trigger condition or event occurs. The contingency plan should identify all trigger events and include amounts of time, money, or resources needed to handle known – or even sometimes potential, unknown consequences.

5.4 The Aggregation of Risks

It is desirable to aggregate risk for the purpose of evaluating total risk exposure. Depending on the stakeholder's interests, this will be done for the following categories:

- Project level
- Program level
- By facility
- By site
- At the enterprise level
- Safety
- Security
- Mission Delivery
- Quality
- Cost Efficiency
- Cost Reduction Initiatives
- Risk Breakdown Structure element

Conversely, there may be times when aggregate risk needs to be disaggregated into individual risks, so a problem source can be isolated and addressed. This aggregation and disaggregation process must follow the 100% rule. This rule states that the risk breakdown structure (RBS) includes 100% of the risk defined by the enterprise's scope. The rule applies at all levels within the hierarchy: the sum of the work at the "child" level must equal 100% of the work represented by the "parent" and the RBS should not include any work that falls outside the actual scope of the enterprise, that is, it cannot include more than 100% of the work.

5.5 Risk Management Tools

ARM®, Active Risk Manager, by Sword Active Risk has been selected as the CNS ERM tool. ARM® is an industry-leading, off-the-shelf risk analysis software which has the capability to integrate our risk approach across all functions, groups, and sites. The ARM tool is based on industry standard best practices for risk management and provides standardization, is integrated and comprehensive, and supports risk informed decision making processes while aligning with the CNS One Vision of Safety, Security, Mission Delivery, Quality and Cost Efficiency.

5.6 Risk Management Governance

CNS risk review boards shall be organized using Integrated Product / Process Development (IPPD) principles. Each Integrated Product / Process Team (IPT) is a multidisciplinary group of people who are collectively responsible for delivering a defined product or process. Every member of the team works from the same information and towards the same overall goals, utilizing the same reporting criteria and tools. Customer representatives and other stakeholder organizations will be present during meetings, which leads to:

- Fewer meetings
- Enhanced downward communication of requirements and upward communication of status and risk
- Enhanced horizontal communication which improves integration

Each team must have the right mix of expertise to master the different facets of risk associated with their business assignments. Members of each IPT must be empowered to make decisions for their respective functional organizations.

While IPTs do not work in isolation, the best IPTs are able to make decisions with fewer consultations, reviews, and approvals with those outside the team. Thus they are not only more efficient; they are also more effective.

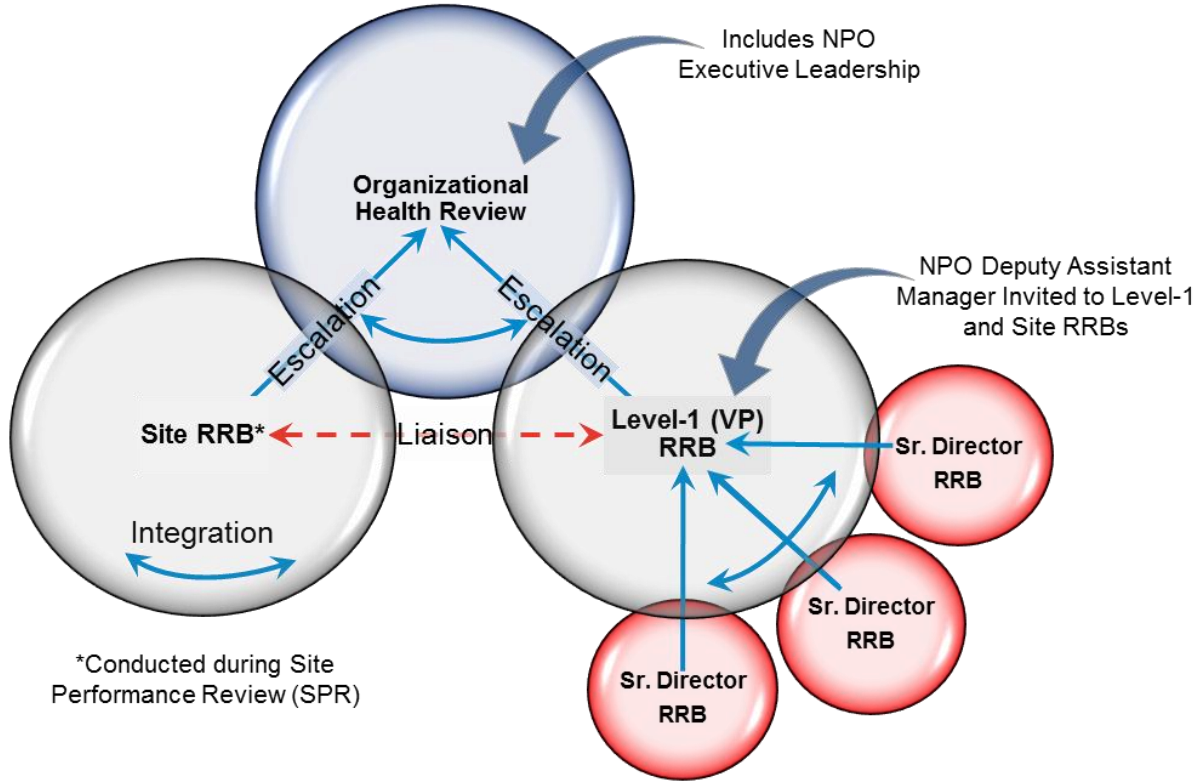
The goal is to manage issues at the lowest level possible, commensurate with the level of risk. IPTs are formed around the organizational RBS, which is closely aligned to the WBS and the cost accounting system. The IPTs are structured to define the relationship between top-level and sub-tier teams. When risks remain unresolved (due to lack of resources, higher priorities, etc.), the ERMO program managers will ensure that these risks are escalated progressively higher on the authority scale until resolution can be achieved. The escalation procedures and thresholds are identified in each risk review board charter.

5.6.1 Risk Review Board (RRB) Governance

Tiered risk escalation is implemented through chartered RRBs, as shown in **Figure 12**. Each tier has a predefined escalation threshold. Risks are managed at the lowest levels possible, by people that are most familiar with the risk.

This model requires every member of the RRB to work from the same information and towards the same overall goals, with the same process and tools. This structure emphasizes systems thinking.

All required stakeholder organizations are present during meetings, which leads to enhanced downward communication of requirements, upward communication of risk, and integration through horizontal communication.



Meetings are open for NPO participation as desired by them.

Figure 12 – RRB Relationships

At each RRB, risk is managed and coordinated with the rest of the organization – both vertically and horizontally.

An escalated risk does not transfer ownership of the risk. Escalation has one of two primary purposes: to provide situational awareness, or to activate the help chain – assistance required from others to resolve the risk.

The Pantex and Y-12 Site Risk Review Boards (SRRBs) view risk from a site perspective. The Level 1 RRBs interface with the SRRBs in one of three modes: Mode 1, an informative relationship, primarily providing situational awareness; Mode 2 in a contributive relationship, responding to actions that originate from the SRRBs, and; Mode 3 as part of an integrated joint working group, assigned to address risk that requires multi-organizational coordination.

6.0 COMMUNICATIONS

Proactive communications about transformation initiatives and merger activities are essential to CNS's success and achievement of future state vision and goals. CNS provides dedicated communication resources and vehicles to develop engaged, educated and integrated stakeholders, with shared support for transformation goals and initiatives. Ultimately, frequent and transparent communication ensures employees understand their role in NNSA's nuclear security mission.

Leadership is responsible for communicating a uniform and articulate foundational approach to the CNS strategy, mission and vision of transformation. The CNS leadership team communicates a compelling and consistent case for change to employees. Strategic communication planning efforts align leadership messages and identify opportunities for executive engagement to reinforce transformation objectives.

Effective communication ensures key messages penetrate all levels of the CNS enterprise, to include internal and external stakeholders. Stakeholder communication requirements must be understood, mapped and maintained, ensuring informational needs are met. Targeted and tailored tools assist managers and supervisors in communicating with the workforce on complex initiatives. Feedback loops gauge the receipt of such messages. Specific messages are created and released within single mission areas, whereas messages around enterprise-wide topics are released to broader audiences. Communication vehicles include emails, newsletters, website posts, verbal engagements and executive engagements. Effective communication is also a cornerstone of ADKAR®—Awareness, Desire, Knowledge, Ability and Reinforcement—which CNS has adopted as its model for change management.

7.0 COMPANY REACH BACK

The four CNS parent companies are well aligned culturally, have experience working together, bring complementary merger/consolidation experience, and have the core competencies needed to transform Y-12 and Pantex into an efficient enterprise. Specifically:

- Bechtel is a global firm that understands the NNSA missions from its management roles at Y-12, Pantex, Los Alamos National Laboratory (LANL), and Lawrence Livermore National Laboratory (LLNL). It will balance the drive for change with the need to protect mission continuity and certainty. Bechtel also brings the most relevant merger experience in DOE/NNSA today from its recent Knolls/Bettis consolidation as well as from the Nevada Test Site (NTS, now named the Nevada National Security Site or NNSS) where it merged three contractors at five sites into one contract, saving \$468 million.
- Leidos has a vast experience that stems from their heritage businesses including Lockheed Martin IS&GS and SAIC. Their pedigree across infrastructure management, energy engineering and efficiency, environmental management, nuclear security, mission support, and IT modernization provides the applicable reach back needed to transform operations while modernizing aging infrastructure and maintaining environmental stewardship.
- ATK has worked with LM on the Trident program for 50 years and has successfully merged numerous companies including Hercules Aerospace and Thiokol Propulsion to become the world's largest supplier of solid propellant rocket motors and ammunition, and a leading provider of high-performance composite structures. It also merged operations at two large energetics sites under one management structure to reduce duplication and achieve substantial cost reductions. In addition, ATK dramatically cut its munitions production costs to remain competitive in a highly challenging commercial marketplace. ATK will bring its

energetics, high-hazard operations, and continuous improvement expertise to the production enterprise through numerous essential personnel integrated into the organization at various levels to facilitate top-to-bottom culture change. Additionally, the recent merger of Orbital ATK with Northrup Grumman will serve to enhance with reach back opportunities available from ATK.

- Search On Command (SOC), LLC is a global provider of mission support and full-spectrum security solutions for the U.S. Government and commercial customers. Capabilities include mission critical safeguards and security, operations and maintenance, engineering, explosive ordnance storage and disposal, and international logistics and life support services. Within the Department of Energy portfolio, SOC operates at Y-12, Pantex, Sandia-Livermore, and the Nevada National Security Site. SOC retains security enterprise subject matter experts available for reach back support to site operations, and cleared personnel to support operations during contingency operations. Furthermore, as a Day and Zimmerman Company, one of the oldest family owned businesses in the United States, SOC has mature business relationships with Mason and Hanger Construction, and Day and Zimmerman Staffing Services.
- While Bechtel, Leidos, ATK, and SOC all bring relevant, successful transformation experience to CNS, we also know that over 50% of all mergers fail to meet their stated goals. To help ensure we deliver for NNSA, CNS preselected Booz Allen Hamilton as a teaming subcontractor to guide our consolidation efforts. Booz Allen has helped over 600 customers plan and execute acquisitions, mergers, and business restructurings. Its proven suite of tools and approaches will be invaluable in smoothing and streamlining the merger of Pantex and Y-12 while creating a cohesive production enterprise. Booz Allen will also help CNS leverage its corporate parents' presence at LANL, LLNL, and Sandia to assist NNSA in accelerating its "One NNSA" vision beyond the production plants.

8.0 PERFORMANCE EVALUATION AND MEASUREMENT PLAN

A Performance Evaluation and Measurement Plan (PEMP) is jointly agreed upon between CNS and NNSA each fiscal year and it is incorporated into the Contract at Section J, Appendix B. The PEMP establishes annual performance Goals, Objectives and Key Outcomes deemed indicative of successful contractual and mission performance and it incentivizes performance through the allocation of a defined percentage of Performance Incentive Fee (PIF) to each of the Goals set forth in the PEMP. Although the performance evaluations provided pursuant to the provisions of the PEMP, and the resultant distribution of PIF based on the Fee Determining Officials annual assessment of CNS's performance, is separate and distinct from Cost Savings Incentive Fee (CSIF) determinations; the PEMP provides CNS and NNSA with a vehicle to ensure that Cost Savings Program achievements are balanced and aligned with overall mission performance as measured by performance against the annual Goals, Objectives and Key Outcomes set forth in the PEMP.

9.0 CNS APPROACH TO COST SAVINGS

In its original proposal, CNS identified \$3.27 billion in savings over the 10-year contract period. Section 12.0 references Contract Modification No. 0121 which approved a reduction of \$360M to lower the overall total savings to a 10-year target of \$2.914B. Our confidence in our ability to deliver those savings is based on the following facts:

- We were deliberately conservative in our assumptions and constrained our savings initiatives to areas we could implement under our own authority as the M&O contractor.

- We focused on mission support functions and were deliberately conservative regarding security and the missions.
- We used proven merger, transformation, and continuous improvement tools provided by Booz Allen to perform our analyses.
- Our initiatives increase mission productivity and in partnership with NNSA, will use value stream mapping to pursue further transformative changes to the missions.

The driving force behind the CNS cost savings effort is the portfolio of cost restructuring initiatives that will be included in the CRP. To identify and quantify these initiatives, CNS follows processes derived from Booz Allen’s experience guiding hundreds of mergers, consolidations, and restructurings of major corporations and government enterprises. In developing the MTP during the procurement process, we identified 62 different initiatives that were described in the proposal. These initiatives were derived from the principles shown in **Figure 13** below, and are now aligned to the tri-annual process from the CNS Cost Savings Program policies and procedures. CNS and NNSA engage regularly during the fiscal year to review cost savings initiatives as shown in **Figure 14**.

DCOM	ABC	Norms of Objectivity	Pinpoint Behaviors
<p><i>Use: To help supervisors provide clearly understood work directions and feedback</i></p> <p>D—Direction</p> <ul style="list-style-type: none"> ◆ Do your people know what you want them to do and why? <p>C—Competence</p> <ul style="list-style-type: none"> ◆ Do they know how to do the task? <p>O—Opportunity</p> <ul style="list-style-type: none"> ◆ Do they have the resources (time, tools, money, people) required to perform the assigned work? <p>M—Motivation</p> <ul style="list-style-type: none"> ◆ Do they get feedback so they know what to keep doing or what to do differently? <p>Addressing these four elements will cover about 80% of the root causes of</p>	<p><i>Use: To understand and influence behavior</i></p> <p>A—Antecedents</p> <ul style="list-style-type: none"> ◆ Events that precede or prompt behavior ◆ 20% influence on behavior <p>B—Behavior</p> <ul style="list-style-type: none"> ◆ What a person does or says <p>C—Consequences</p> <ul style="list-style-type: none"> ◆ Events that follow behavior ◆ Increase, maintain, or decrease behavior ◆ 80% influence on behavior 	<p><i>Use: To describe behaviors objectively (just the facts)</i></p> <p>N—Not an Interpretation</p> <p>An unbiased statement about behavior</p> <p>O—Observable</p> <p>Behaviors seen/heard</p> <p>R—Reliable</p> <p>Two or more people agree on what they observed</p> <p>M—Measurable</p> <p>A number can be used to describe important aspects of a behavior or event</p> <p>S—Specific</p> <p>Detailed description as to what happened, who was involved, when, where, and the sequence</p>	<p><i>Use: Specify the few critical behaviors that most impact the desired results (80/20 rule)</i></p> <ul style="list-style-type: none"> ◆ Be specific about the desired results ◆ Specify the key behaviors and performer(s) that most impact the desired results ◆ Describe the key behaviors objectively (avoid labels) ◆ Evaluate changes in behavior against changes in result

Figure 13 – Management Principles for Driving Cost Reductions

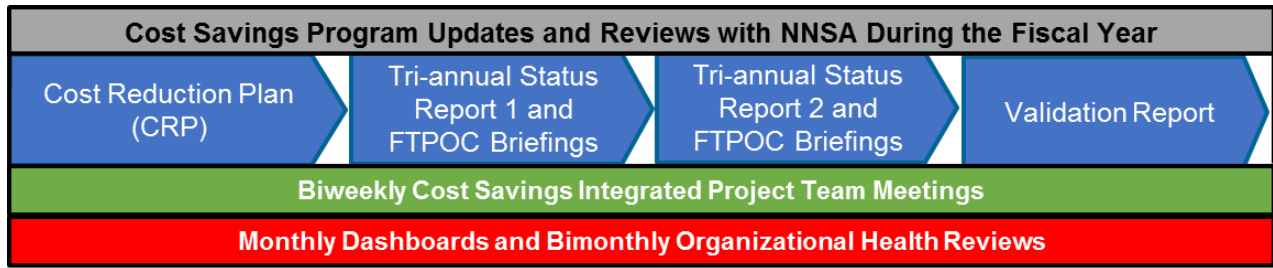


Figure 14 – Cost Savings Program Reviews

CNS has learned from the corporate Six Sigma, LM21, and PES programs that we cannot engage employees in a complex transformation program by intimidation. We must have voluntary buy-in to maximize discretionary effort and engagement. Further, we have found that managers do not always understand how to best motivate their employees to win this buy-in. For that reason, the CNS Performance Enterprise System (PES) deployment process will rely on training in Performance-Based Leadership (PBL) and Relational Based Leadership (RBL). These courses are a leadership toolkit taught and used across Bechtel as a general management approach and philosophy that helps managers get the best from their employees—including getting buy-in to PES.

The two courses are very different from other leadership formulas promoted across corporations today. It is based on behavioral science, and focuses attention on how results are achieved. Discretionary performance can best be described as the extra level of effort people contribute when they want to do something as opposed to when they are told to do something. PBL tools can help create an environment where colleagues are open to feedback, engaged in a continuous and productive behavioral improvement process, where they share and ultimately benefit from achieving mutual goals.

Some Y-12 and Pantex incumbent managers have already received training, and refresher training will help reinvigorate their PES skills. Training will be used to foster and maintain a workplace culture with a bias toward change that will markedly increase buy-in to the Performance Excellence Program and help institutionalize a long-term commitment towards excellence and continuous improvement. This commitment will yield enduring improvements in mission delivery.

CNS adopted Bechtel’s proven, scientific approach to behavior change, which will be vital to establish a culture of continuous improvement across sites. Through this innovative training approach, leaders learn to utilize discrete tools to motivate, engage, align, and reward employees. It incorporates the following actions, which are outlined in **Figure 15**.

- **Goals:** Define and prioritize what needs to be done to improve strategic business success. These goals are related to the organization’s (and the leader’s) performance objectives, which are tied to the leadership team’s compensation. By leaders communicating goals, the workforce will increasingly understand the impact of their behavior and daily work and adopt the mindset that change must occur.
- **Behaviors:** Pinpoint the human behaviors needed to improve engagement, motivation and the use of core processes and to achieve specific business results.
- **Analyze:** The work environment is analyzed to identify factors that encourage or discourage the desired behaviors.

Coaching	Giving Feedback	Receiving Feedback	Performance-Based Leadership
<p><i>The purpose of coaching is to improve performance. Feedback is the primary coaching tool. Feedback is information given to an individual or team about their behaviors and their impact.</i></p> <p>Ten Basic Principles of Feedback</p> <ul style="list-style-type: none"> ◆ Provide NORMS-based feedback ◆ Deliver immediately after behavior is seen/heard ◆ Confirm the receiver is ready to receive feedback ◆ Treat the person with dignity and respect ◆ Focus on behavior and not on the person/personality involved ◆ Practice "Active Listening" ◆ Ask questions to confirm and/or clarify ◆ Use "I" messages: "I saw..., I heard..." ◆ Listen to the receiver's response ◆ Deliver in person whenever possible 	<p>Giving CONSTRUCTIVE Feedback (to encourage people to change an undesired behavior)</p> <ul style="list-style-type: none"> ◆ State the current behavior and the desired behavior objectively (just the facts) ◆ Describe the adverse impact of the current behavior to the job/team/you ◆ Ask the person for an explanation of their current behavior and actively listen ◆ Ensure the person knows what to do differently, why, and how to do it ◆ Follow up—when you observe the desired behavior provide positive feedback <p>Giving POSITIVE Feedback (to encourage people to repeat a desired behavior)</p> <ul style="list-style-type: none"> ◆ State the specific behavior objectively (just the facts) ◆ Describe the positive impact of the behavior to the job/team/you ◆ Encourage the person to keep doing the behavior in the future 	<p>Receiving CONSTRUCTIVE Feedback</p> <ul style="list-style-type: none"> ◆ Listen closely to the other person ◆ Ask questions to clarify and to understand the feedback ◆ Avoid being defensive ◆ Thank the feedback provider for their feedback ◆ Think about the feedback you have received before changing your behavior <p>Receiving POSITIVE Feedback</p> <ul style="list-style-type: none"> ◆ Say, "Thank You" 	<p>Performance-Based Leadership</p> <p>Leadership, the ability to influence others, is critical to Bechtel's business success.</p> <p>Effective leaders get results and create motivating work environments that enable people to bring their best ideas, work efforts, and teamwork to the job.</p> <p>Using PBL tools in this pocket job aid can help you become a more effective leader.</p>

Figure 15 - Management Principles for Performance Based Leadership



Figure 16 - Performance-Based Leadership

- **Change:** Based on the analysis, an action plan is established to change the work environment and consequently increase the probability of the desired behaviors occurring, leading to optimum results. This change process relies on leaders applying the seven tools of PBL to achieve the desired results.

- **Measure:** The outcomes need to be continuously measured and reported – both behavior change and business impact. Since goals are established and flowed down through the organization, comparing the performance measurements to these goals helps the leadership team and the increasingly engaged workforce to self-monitor and self-manage, facilitating continuous improvement at the same time that leaders remain accountable for results. This feeds into the concept that PBL is successful because employees want to do something versus being told to do something (commitment versus compliance).
- **Celebrate and Reward:** PBL augments the culture of employee engagement with one where employees are rewarded for meeting and exceeding goals. The CNS team in fact has a budget for formal recognition programs, in addition to a leadership mindset that values regularly recognizing good work.

THE SEVEN TOOLS OF PERFORMANCE
BASED LEADERSHIP:

1. Coaching
2. Giving Feedback (both constructive and positive)
3. Receiving Feedback
4. DCOM supervisory tool (Direction/ Competence/ Opportunity/ Motivation); addresses 80% of root causes of poor performance
5. ABC Tool for understanding and influencing behavior (Antecedents/ Behavior/ Consequences)
6. NORMS of Objectivity (Not an interpretation/ Observable/ Reliable/ Measurable/ Specific)
7. Pinpoint Behaviors (the critical few behaviors that impact the desired results following 80/20 rule)

Figure 17 – The Performance Based Leadership Toolkit provides leaders with specific tools for coaching their team in order to achieve results and motivating work environments.

10.0 METHODOLOGY USED TO DEVELOP PROJECTED COST SAVINGS

To effectively deliver the mission consistent with its values, CNS recognized the need to carefully examine the cost savings available. CNS leveraged Booz Allen's expertise in cost restructuring engagements including mergers, transformations, and continuous improvement to systematically investigate potential cost reduction initiatives.

To initiate cost savings, CNS first engaged the complete CNS leadership team in a fact-based discussion on values, principles, goals, and expectations for the new contract and the challenges inherent in managing geographically separated sites as a single enterprise. From this discussion, our key personnel developed a common vision and mission for change that embodies the magnitude and timing of the cost and performance challenges. This executive-level dialogue is ongoing and continually guides the transformation as it progresses toward success.

CNS employed both top-down and bottom-up approaches to identify and isolate cost savings through all levels of the organization. Top-down approaches include comparisons of spending in overhead, mission support, and mission-performing functional areas. Spending quantities and the ratios of spending in various functional areas allows CNS to identify opportunities to reduce department sizes without sacrificing the performance of the organization.

Analysis of the organizations' supervisory spans and layers further reveals middle-management areas which can be optimized for greater performance. Bottom-up analysis such as a detailed analysis of benefits, management operational policies, and incentive structures allow CNS to propose changes to policies that will align existing organizational behaviors with CNS and NNSA interests. These methods helped identify redundant or less efficient technical and business

operations across the sites, which serve as the basis for cost reduction opportunities. Additionally, the continuous improvement methodologies to be implemented will continue to search for, uncover, develop solutions, and achieve savings in these areas over the duration of the contract. In developing the cost savings estimates, CNS identified the recurring savings that would be taken from selected actions.

11.0 CNS PROJECTED COST SAVINGS AND INCENTIVE FEE

As noted above, CNS developed an initial cost restructuring portfolio consisting of 62 CRIs previously identified in the proposal which CNS submitted to NNSA. The CRIs encompass both intensive and extensive changes to the organization. Initiatives change the cultural qualities of the organization as well as the size and shape of the organization. Various CRIs utilize economies of scale, differences in regional economies, competitive market landscapes, and management best practices across all functional areas in the organization. These CRIs were developed by general management consultants and vetted by functional experts who excel in their respective fields. As part of CNS' management review, the initiatives are considering the staffing levels in critical skill areas to ensure they do not drop below levels necessary to maintain these capabilities. This analysis is undertaken with HR and the CNS functional leaders to identify critical skill needs and existing talent pools. The Staffing Plan, submitted April 8, 2014 by CNS during Transition and now managed in concert with the ACB process, reflects this detailed review of the site skill mix and targeted effort to protect the necessary skills in the workforce. It should be noted that the cost savings approach of CNS will further protect and strengthen these critical skills over time. By freeing additional funding to CNS and NNSA, and reinvesting in needed skill sets where there are shortages, we will trim areas where skills are in excess of required capacity.

CNS created a CRI data template to systematically collect data regarding all aspects of each CRI relevant to CNS and NNSA, including:

- The amount of savings available
- Amount of execution costs required to achieve the savings
- Actions required to achieve the savings
- A timeframe for recouping costs
- Potential risks that could affect the expected savings of the CRI
- Actions that CNS would take to mitigate these risks

The identification, evaluation, and mitigation (as needed) of the risks in the CRIs are key aspects of ensuring the effective merger and transformation of the sites without negatively impacting the sites' missions. The CNS team members' decades of experience in leading and executing mergers and transformations, as well as their experience in managing and operating high-hazard operations are another aspect of mitigating risks to mission operations from the merger and transformation activities.

NNSA has designed and executed an innovative and well-structured contract for the Management and Operation of the Y-12 National Security Complex and the Pantex Plant. The contract strongly incentivizes CNS to identify and implement cost savings initiatives while maintaining a clear and appropriate focus on the safe and secure delivery of the mission. In accordance with the terms of the solicitation, CNS proposed sharing 35% of non-benefit-related savings for the first two years after the implementation and resulting verification of the associated cost reduction initiative. CNS further proposed that it would take no fee share from savings that resulted from the market based restructuring of employee benefits. This competitive approach enables CNS to return 92% of total

savings to NNSA for release, reinvestment or reprogramming without betraying any commitments to safety or security.

In addition to the proposed savings, CNS committed to provide rigor and transparency to the management of the cost savings program. This rigor and transparency is embodied in our approach to the Annual Controlled Baseline (ACB) and our use of appropriate management tools and systems to track and report savings. Our first-of-a-kind ACB includes an organizational cost baseline that provides a direct measure of savings and markedly increased detail on labor, material, subcontracts, and other expenditures. Recognizing that Earned Value Management System (EVMS) is a project management technique that is not intended to be a substitute for robust business financial management systems, CNS will utilize its certified EVMS system to execute line item and other capital projects as described below.

Our approach places equal emphasis on managing and tracking all elements of cost including direct, indirect, projectized level of effort, subcontracted, etc., and we will use our integrated processes (ACB, CRP, CRIs) to track and status all cost savings initiatives regardless of source or type. CNS originally proposed using a certified EVMS system to track and status all cost savings. This approach was based on a limited understanding of the site work, the existing degree of “projectization” of the scope, and the level of detail available in the planning process. During transition, CNS therefore modified its approach to employ our certified EVMS systems when it makes the most sense based on a requirement or to track a specific project with sufficient complexity to warrant the need for this level of detail (e.g. Life Extension Programs, Capital Reinvestments). The intent of our approach, however, remains the same in that we will place an equal emphasis on managing and tracking all elements of cost. We will develop and deploy systems to collect and integrate cost and accrual information from across the enterprise for analysis to support the management of the cost savings program and ensure the defensibility of savings claimed.

CNS used proven, commercially oriented merger and transformation processes to identify savings of \$2.914B

- ▶ Streamlined staffing to focus on critical skills for mission delivery
- ▶ Adjusted benefits and employee leave policies to make them more consistent with industry trends
- ▶ Merged and consolidated functions with standardized processes
- ▶ Eliminated unnecessary activities and “shadow” functions
- ▶ Improved purchase pricing through volume-leveraged procurement
- ▶ Selective outsourcing for greater efficiency
- ▶ Enabled higher utilization rates through cross-training and flexibility
- ▶ Applied historical savings to account for more effective operations due to continuous improvement via Performance Excellence

Requirements for tracking cost reduction initiatives and segregating claimed savings have evolved significantly since the proposal was written. Funding related to CNS Cost Reduction Initiatives (CRIs) will be tracked through the Finance and Business Operations (FBO) Cost Savings Database by year and type of savings at the Obligation Control Limit (OCL) level. The cost savings will be segregated by the amount paid to CNS in cost savings incentive fee, the amount available for reinvestment, and the amount to be returned to NNSA. Based on transparency requirements, CNS has also developed an approach to create reserves inside and outside the ACB to provide visibility and transparency to the savings. The savings spreadsheet is linked with this effort to provide the required tracking. Additionally, each CRI will be tracked for the life of the contract.

Analyzing the cost restructuring portfolio allows CNS to forecast annual savings over the potential 10-year contract term. The projected cost savings and associated CSIF are shown in **Figure 19**,

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which separates savings from benefits and non-benefits savings and demonstrates CSIF, which is taken on non-benefits savings only. Supply Chain savings are subject to a one-year valuation to demonstrate the sustainment of ongoing strategic sourcing initiatives, and the distribution of these savings is 25 percent CSIF, 35 percent government share, and 40 percent site reinvestment. All cost savings calculations will be done in conjunction with correspondence between CNS and the NPO Contracting Officer.

Figure 19 – MTP Revision – April 2017															
Benefit Savings		Base Years (\$K)						Option Years (\$K)						Total Savings	Cumul. Savings
		FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24			
CRP Savings	TY\$	0	21,541	7,755	8,044	20,640	8,642	4,143	2,874	2,959	3,049	1,422	81,068	594,494	
<i>Note 1</i>															
Offeror Share in Savings	%	0	0	0	0	0	0	0	0	0	0	0			
Notes 2, 3	\$	0	0	0	0	0	0	0	0	0	0	0	0		
Share in Savings Period	yrs	0	0	0	0	0	0	0	0	0	0	0			
Savings to the Government	TY\$	0	21,541	7,755	8,044	20,640	8,642	4,143	2,874	2,959	3,049	1,422		594,494	
<i>Note 1</i>															
Other Savings		Base Years (\$K)						Option Years (\$K)						Total Savings	Cumul. Savings
		FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24			
CRP Savings	TY\$	0	45,175	45,511	56,289	63,852	32,756	23,666	25,418	23,868	24,240	24,151	364,926	2,319,397	
<i>Note 1</i>															
Offeror Share in Savings	%	35	35	35	35	35	35	35	35	35	35	35			
Notes 2, 3	TY\$	0	15,811	31,740	28,930	40,093	27,443	14,933	13,633	14,070	13,515	21,914	222,083		
Share in Savings Period	yrs	2	2	2	2	2	2	2	2	2	2	2			
Savings to the Government	TY\$	0	29,364	13,771	27,359	23,759	5,313	8,733	11,785	9,798	10,725	2,237		2,097,314	
<i>Note 1</i>															
Total CRP Savings		Base Years (\$K)						Option Years (\$K)						Total Savings	Cumul. Savings
		FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24			
CRP Savings	TY\$	0	66,716	53,266	64,333	84,491	41,398	27,809	28,292	26,827	27,289	25,573	445,994	2,913,891	
<i>Note 1</i>															
Total Savings to the Government	TY\$	0	50,905	21,526	35,403	44,399	13,955	12,876	14,659	12,757	13,774	3,659	223,912	2,691,808	
<i>Note 1</i>															

Note 1: New benefit savings and CRP Savings are calculated based on the difference of savings from that year minus the previous year.

Note 2: Cumulative CSIF is a summation of the savings in each Contract Year listed in the table.

Note 3: Fee for a given year is calculated by $0.35 * [(Total\ new\ savings\ for\ year\ n - Benefits\ new\ savings\ for\ year\ n) + (Total\ new\ savings\ for\ year\ (n-1) - Benefits\ new\ savings\ for\ year\ (n-1))]$. Year 10 fee is $0.35 * (Total\ new\ savings\ for\ year\ 9 - Benefits\ new\ savings\ for\ year\ 9) + 0.7 * (Total\ new\ savings\ for\ year\ 10 - Benefits\ new\ savings\ for\ year\ 10)$ to accommodate the equivalent of two years of fee from year 10.

Figure 19 – Projected Cost Savings (CNS Contract Proposal) (\$K)

For savings proposed in conjunction with the MTP, and as stated in the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction" CNS will validate the amount of savings achieved and sustained from prior periods after which savings will be verified by the Contracting Officer as required by contract. This will ensure there is no negative impact to NNSA mission deliverables.

12.0 ASSUMPTIONS USED TO DEVELOP PROJECTED COST SAVINGS

The assumptions underlying the CRIs included in CNS' proposal were carefully documented in the CRI data template to ensure that emerging conditions do not disrupt anticipated savings. These assumptions have been examined to ensure that they are sufficiently conservative to incorporate into the CNS decision-making process. CNS analysis assumes:

- CNS has used a historical severance cost
- CNS has used an approved Compensation Increase Plan (CIP) for labor and non-labor cost in the 10-year cost savings projections

By the issuance of Contract Modification No. 0121, NNSA accepted adjustments in five areas, totaling \$360M: \$267M in adjustments stemming from deferral of the Savannah River Tritium Operations option decision and \$93M in adjustments from other areas where the information provided by NNSA to CNS and other vendors in the RFP differed from the actual site operations at contract turnover.

When CNS reports net savings, the calculations include only hard savings values that are less the execution costs required to achieve them. All of the CNS cost savings reinvestment projects submitted to date are funded through efficiencies that we create outside of cost savings reinvestment projects. Details about execution costs will be contained in the tri-annual status reports and the CRP Validation Report. In accordance with the Contract's Section I Clause entitled "DEAR 970.5215-4, Cost Reduction" "[t]he Government makes no commitment to fund implementation costs but will consider those within budget on the merits of the savings proposed." However, it is assumed that site funding will continue to provide funding to support NNSA-directed actions and scope. For example, funding for facility replacements or capacity enhancements directed by NNSA, such as UPF, are not included as an expected investment by CNS, but instead are funded by NNSA. Similarly, an NNSA requirement to convert all NNSA site ERP systems to a common platform would be assumed to be contained with CNS site scope, or if changes are so significant that they are outside of current scope, an increase in funding or adjustment of existing funding priorities will occur in coordination with NNSA.

13.0 THE ANNUAL CONTROLLED BASELINE AND THE BASELINE CHANGE CONTROL PROCESS

13.1 The Annual Controlled Baseline

Developing and maintaining accurate baselines is crucial to the success of this contract. Accurate annual baselines serve as our roadmap for the way we accomplish the work, and help define scope, cost and schedule. Separate but related baselines must be maintained over the life of the contract to document the annual and cumulative savings achieved. These baselines must be accurate and defensible as billions of dollars of cost will be incurred and billions of dollars in savings will be released, reinvested or repurposed based on these baselines.

The baseline requirements are described in the Contract Statement of Work (Section J, Appendix A, Paragraph 3.3) and in Clause I-19 (DEAR970.5215-4). These requirements are addressed through the establishment and maintenance of three baselines as follows:

- Initial Baseline
- Annual Controlled Baseline (or current baseline)
- Proposed Baseline (or Cost Savings Baseline)

These three baselines are necessary to enable annual tracking of scope changes and cost savings over the life of the contract.

CNS has adopted a phased approach to implementation of the Annual Controlled Baseline (ACB) required under NNSA's Consolidated Production Contract. This approach is consistent with the phased approach being utilized to consolidate the Pantex and Y-12 financial processes and systems. Once fully operational, the CNS model of managing resources and scope will consist of the following components:

1. **Initial Baseline**
 - a. **Purpose:** The initial baseline serves as the starting point for the measurement of verified cost savings for the duration of the CNS contract.
 - b. **Content:** The initial baseline consists of the resources required to deliver the current mission scope prior to the implementation of efficiencies resulting from cost savings initiatives.
 - c. **Change Criteria:** The initial baseline will be defined and agreed upon between NNSA and CNS and will be revised each year to account for verified changes in scope.
2. **Annual Controlled Baseline (ACB)**
 - a. **Purpose:** The ACB is a verifiable description of the current scope of work, cost, schedule, and risk. It also captures and locks in implemented efficiencies to ensure sustainment.
 - b. **Content:** The ACB consists of the mission and cost baselines defined below:
 - i. **Mission Baseline.** The Mission Baseline includes spend plans by OCL. The mission scope is identified through the Prioritized Project List (PPL). It also defines the resources required to achieve the scope as well as associated deliverables and risk.
 - ii. **Cost Baseline.** The Cost Baseline describes the annual costs and headcount needed by CNS Organization to achieve the mission baseline costs; broken down into labor, fringe, materials, subcontracts, etc., for each functional organization.
 - c. **Change Criteria:** The ACB is developed annually and is referenced in the CRP. The ACB may need to be updated with BCRs during the fiscal year to incorporate scope, schedule, or resource changes.
3. **Proposed Baseline**
 - a. **Purpose:** The Proposed Baseline is part of the Cost Savings Baseline which reflects the expected savings, generated by CRIs within the CRP, to be confirmed at the end of the fiscal year.
 - b. **Content:** The Proposed Baseline reflects the target hours that each CNS organization must achieve by the end of each fiscal year to realize the savings within the CRP. If an organization's actual hours exceed the proposed baseline, CNS may not fully realize expected new savings. If an organization's actual hours

exceed the Cost Savings Baseline, CNS may reflect a loss of sustainment of previous years' savings.

- c. **Change Criteria:** The Proposed Baseline was updated initially within the July 1, 2014, CRP and then on an annual basis at the beginning of each fiscal year. The Proposed Baseline may need to be updated during the fiscal year to incorporate scope changes that have occurred due to a delayed budget approval or other mid-year funding adjustments, to incorporate a CRI to be executed in the current year that was not included in the CRP, or to incorporate a CRI that requires modification during the year.

4. **Baseline Change Requests (BCRs)**

Any change to the mission baseline requires a BCR be developed and approved. The required approvals are based on the dollar amount changed and the approval thresholds defined in the CNS enterprise level ACB Change Control Process procedure. Once the BCR receives the appropriate approval the baseline will be adjusted.

5. **Cost Reduction Proposal (CRP) and Cost Reduction Initiatives (CRIs)**

These define the proposed merger, transformation and continuous improvement actions that CNS is taking to reduce the current baseline cost in a particular program, project, or organizational area. The CRP will include CRIs and will be updated at least annually. The CRIs will be tracked against the Annual Controlled Baseline and CRIs will be the mechanism for measuring and validating cost savings for the year by measuring cost reduction in actual annual hours to validate savings from the CRIs.

13.2 Current State

The ACB is a plan for scope, schedule, cost, and risks for the work executed during the fiscal year. The ACB includes both a Mission Baseline and Cost Baseline which contain all the elements of cost necessary to execute the planned scope (labor, materials, subcontracts, staff augmentation, and other direct costs) by both program and organization. At the beginning of FY 2015, CNS stood up a Change Control Board made up of Senior Leadership, F&BO, and Programs to manage the baseline and keep it under configuration control. CNS implemented a balanced Mission and Cost ACB, thus unifying Pantex and Y-12 into one plan. The complication of two separate financial systems was mitigated through a data warehouse which mapped the two financial systems into one consolidated organizational financial statement. This unified system provided the organizational detail and mission data. As of October 1, 2017, CNS has delivered a single financial system based on SAP HANA that will be the basis for tracking budgets, actual costs, and savings.

Starting in FY 2017, CNS improved its methodology for implementing and validating savings. Benefits and supply chain savings began using an annual savings methodology, and a new methodology was developed for labor FTE savings, outlined in **Figure 20 - Revised Labor Savings Validation Approach**. The improved methodology now includes a two-step approach for claiming labor FTE savings that first validates the achievement of labor CRIs and then confirms the resulting savings using actual hours.

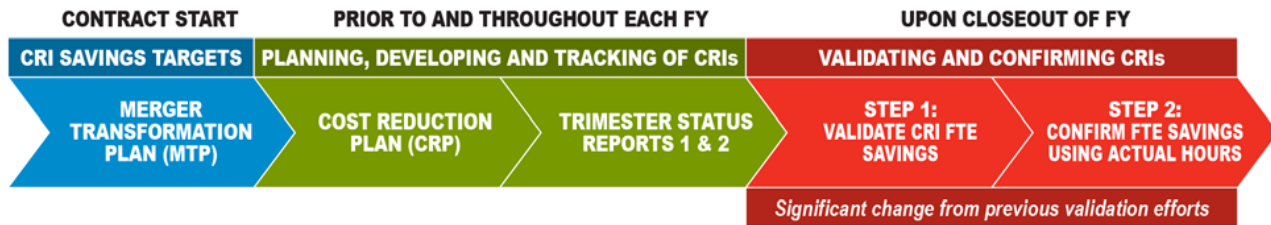


Figure 20 – Revised Labor Savings Validation Approach

The improved methodology fuses a “CRI-centric approach” with an actuals based savings confirmation. Step 1 validates the execution and achievement of an approved efficiency initiative and the subsequent delivery of the requisite level of scope. Step 2 confirms the implementation of the CRI by measuring the resulting reduction in actual hours. This approach provides multiple confirmatory steps to ensure that the CRI resulted in savings as follows:

- The CRI is complete and valid;
- The reserved funding is available for distribution per the sharing arrangement;
- The CRI reduced actual hours during execution;
- Overall hours did not shift to other areas; and
- Tracking of overall changes to the plan through a strengthened BCR process to ensure transparency for scope changes and to maintain a credible savings baseline.

Taken together, these steps significantly strengthen CNS’s annual validation approach and provide a much clearer understanding of the validity of the savings claimed by CNS while also providing enhanced documentation to support these savings.

Further, the new approach includes a cost savings baseline that provides an ongoing means to measure cumulative savings and sustainment of previously verified savings. This approach better aligns the requirements of the cost savings program with NNSA mission requirements by recognizing that annual funding has been increasing year over year along with NNSA expectations for additional scope to address production requirements and site infrastructure conditions.

13.3 Phases in the Development of the ACB

13.3.1 Phase I: 4th Quarter FY 2014 Jul 1 – Sep 30, 2014

Phase I is referred to as year zero in the Merger Transformation Plan.

- **Mission Baseline:** Existed for each site but no rigorous scope definition, change control process or risk analysis process was in place.
- **Cost Baseline:** Did not exist by organization. CNS provided the Estimate To Complete (ETC) the remaining scope for the 4th Quarter of FY 2014.
- **Cost Reduction Initiatives (CRIs):** There were a number of CRIs, which impacted Phase I and were documented in the CRP. The CRP was submitted prior to the start of the period and included reference to a final ACB and a proposed baseline showing the anticipated cost reduction for the 3-month period.
- **Change Management Council (CMC):** Was implemented at the beginning of the period to manage changes to the Mission Baseline and CRIs for the period.
- **Cost Models:** Different ones existed for this period at the two sites, but there was an approved CNS disclosure statement.

- **Financial Systems:** Two separate financial systems existed but data was consolidated for reporting and ACB performance tracking and verification purposes.

13.3.2 Phase II: FY 2015 Oct 1, 2014 – Sep 30, 2015

- **Annual Controlled Baseline (ACB):** Was established and submitted December 17, 2014, and consisted of the following:
 - **Mission Baseline.** The Mission Baseline included costs based on standard rates by Budget and Reporting (B&R) code and by functional organization. The mission scope was identified through the Prioritized Project List (PPL), along with the resources required to achieve it. The scope, deliverables, and risk associated with each PPL were also defined.
 - **Cost Baseline.** The Cost Baseline described the annual costs and headcount needed by each CNS Organization to achieve the mission baseline. Costs within this baseline were broken down into labor, fringe, materials, subcontracts, etc. for each functional organization.
- **Cost Reduction Initiatives:** An updated CRP was submitted prior to the start of FY 2015 that included both the CRIs that began in Phase I as well as new CRIs which were implemented in FY 2015. The updated CRP also included a Proposed Baseline for FY 2015.
- **Change Management Council (CMC):** Was fully operational and reviewed appropriate scope; funding and CRI changes. Approved changes to scope, CRIs or budgets were reflected in both the Mission and Cost baselines.
- **Cost Model:** A single CNS cost model was in place at the start of the fiscal year.
- **Financial Systems:** Two separate financial systems existed but data was consolidated for reporting purposes as well as, performance tracking and cost savings verification purposes.

13.3.3 Phase III: FY 2016 Oct 1, 2015- Sep 30, 2016

- **Annual Controlled Baseline (ACB):** Was established and submitted at the beginning of FY 2016 and consisted of the following:
 - **Mission Baseline:** The Mission Baseline included costs based on standard rates by B&R code and by functional organization. The mission scope was identified through the PPL, along with the resources required to achieve it. The scope, deliverables, and a risk associated with each PPL was defined.
 - **Cost Baseline:** The Cost Baseline described the annual costs and headcount needed by each CNS Organization to achieve the mission baseline. Costs within this baseline were broken down into labor, fringe, materials, subcontracts, etc. for each functional organization.
- **Cost Reduction Initiatives:** CRIs that began in Phase I and II, as well as new CRIs that were implemented in FY 2016, were in place. An updated CRP was submitted prior to the start of the fiscal year to document the CRIs for this fiscal year and establish a proposed baseline for FY 2016.

- **Change Management Council:** Was fully operational and reviewed appropriate scope; funding and CRI changes. Approved changes to scope, CRIs or budgets was reflected in both the Mission and Cost baselines.
- **Cost Model:** A single CNS cost model was in place at the beginning of the fiscal year.
- **Financial System:** Two separate financial systems existed, but data was consolidated for reporting purposes as well as, performance tracking and cost savings verification purposes.

There are no changes beyond FY 2016 from what is detailed in Phase III with the exception that CNS moved to a single, consolidated financial system at the beginning of FY 2018 and CNS moved to using different SAP HANA versions. Those versions were used in the preparation of the annual ACB to differentiate the initial fiscal year spend plan (excluding CRIs) and the mission/cost baseline adjusted to reflect expected savings from the CRP (referred to as the “Proposed Baseline,” which is maintained as the operating SAP HANA version for the execution year).

13.4 ACB Change Control Process

Baseline Change Requests (BCRs) are needed for changes to the ACB. Baseline changes exceeding certain thresholds are submitted to the CRB or CMC who can either approve them, endorse them to NNSA for approval, or disapprove them. The Change Control Process (CCP) shows how CNS accounts for change, identifies whether the change was directed by CNS or NNSA and, if NNSA directed, ensures that appropriate documentation is developed and approvals are obtained. CNS recognizes that such documentation is required to be able to provide the Contracting Officer with sufficient details regarding where changes originated (e.g., who in NNSA directed the change), how the change occurred, how the results were determined, and what actions were taken to revise the baselines. Absent such supporting documentation, baseline changes and potential savings may be disapproved.

The following outlines the CMC’s structure and responsibilities relating to the CCP:

- **CMC CCP Responsibilities:** When justified, the CMC provides CNS approval of all BCRs and also oversees maintenance of the ACB. The baseline is included in the annual or mid-year CRP update. The CMC is responsible for approving BCRs associated with this document. The CMC also is responsible for forwarding approved BCRs to NNSA for final approval when required.
- **CMC BCR Structure:** The CNS Chief Operating Officer is the Change Control Chairperson. The Change Control Members are the same as the members of the CMC which will include ten key members who are senior CNS managers. In addition, the CNS Business Management and Transformation Vice President is the Change Control Secretary. The CMC members recommend approval or disapproval of baseline changes, but ultimate CNS disposition authority resides with the Change Control Chairperson. In addition, NNSA representatives are invited to all CMC meetings.
- BCRs whose change criteria fall below the change thresholds of the CMC are reviewed and dispositioned by the CRB and, below that, the Programs or Functional Organizations. NNSA representatives are invited to all CRB meetings as well.

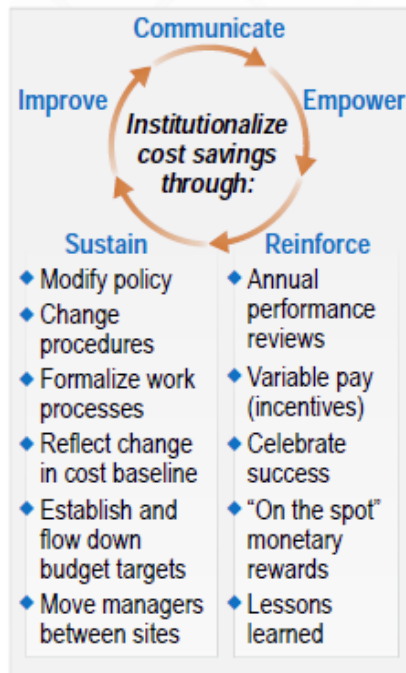


Figure 21 – Change Management Process. The CNS process for reinforcing and sustaining change in the production enterprise is based on hundreds of consolidations

14.0 INCORPORATING COST SAVINGS INTO ONGOING OPERATIONS

After we generate savings using our merger, transformation, and continuous improvement initiatives, we face two challenges:

- Ensuring that we sustain the savings
- Supporting NNSA in dispositioning those savings

This section presents our approaches for both challenges. To sustain the savings, CNS must institutionalize the improvements through procedure updates, training or retraining, culture alignment, management attention, and other reinforcement techniques that will stop any erosion of the savings initiative. CNS acknowledges that disposition of the savings is solely NNSA’s responsibility and will, of course, support any action chosen. Should NNSA choose to reinvest the savings, CNS will present options for getting the best return on investment. That may be reinvestment within the production enterprise, or it may involve sending the funds to another NSE site. Booz Allen has vast expertise in this area and can offer abundant options. The following sections present more detailed responses to each of these post-savings activities.

14.1 Institutionalization of Cost Savings

Based on their extensive corporate experience, CNS has learned that sustaining transformational change is often as difficult as making it in the first place. Change Management is described in **Figure 21**. As we described previously, it comes down to leadership and discipline. CNS will detail the CRP policies and procedures it will use to institutionalize the cost savings we gain from our initiatives; the continuous process improvements realized outside of the CRP initiatives; and, transformation actions taken later in the merger process. CNS is fully incentivized to deliver the savings and guard against unintended consequences. As described in the proposal, CNS will fund a Corrective Measures Program for any corrective measures or rework associated with our cost savings initiatives.

14.2 Disposition of Cost Savings

Reinvestment of savings affords the opportunity to address aging infrastructure challenges, invest in personnel development and workplace quality of life, finance additional mission work, as well as enable further transformation initiatives. The Savings Reinvestment Process provides a formal framework for guiding contractor-generated savings reinvestment decisions. It establishes a transparent, technically-based business process that effectively identifies and approves those projects and human capital initiatives with significant benefit to the people and missions associated with CNS-operated sites. The process is governed by a set of general guidelines based on underlying contract requirements, program management guidance, fiscal regulations, and annual guidance from senior leadership. The process is supported by appropriate analysis and requires full stakeholder participation in the development, assessment and selection of projects and

initiatives for funding. CNS will provide recommendations on site reinvestment priorities and anticipates NNSA review and/or approval of projects based on magnitude of investment and potential impact to the wider Nuclear Security Enterprise.

14.3 Continuous Full and Open Transparency

CNS recognizes that cost performance on this contract may be more highly scrutinized than for any other NNSA M&O. Cost savings and efficiency gains were the motivation for merging the two contracts. The proposed cost savings played a large role in the selection of CNS and many are tracking performance to ensure goals are achieved. To satisfy this level of scrutiny, we respond with complete and total transparency as to all cost and schedule data—process rates, labor and material costs, staffing levels, overhead pools, and any other data needed to fully understand the savings we have proposed and the level to which we are achieving them.

To deliver this information, we are implementing a cost effective, web-based Consolidated Information System (CIS) that will leverage technologies that make it compatible with the NNSA Network Vision. CIS is a straightforward SharePoint-based portal to the information maintained by the consolidated data warehouse and the new/single financial system. . CIS will help visualize the data that will be integrated by combining the Pantex and Y-12 ERP systems on SAP HANA with the Business System Modernization Project (BSMP). CIS leverages Leidos' experience and best practices in deploying these types of transparent management portals for many other US Government departments including Health and Human Services and the Department of Defense. An underlying key tenant of our development approach is to migrate over time to a consolidated, integrated enterprise IT management model. This approach was detailed more specifically in the Architectural Roadmap deliverable, which was provided December 2014 with roadmaps updated and refined over time by the Chief Technology Officer (CTO) office. However, during the transition period, a common operating domain will be established to provide access to shared calendars, contacts, email, data shares and applications using a trusted relationship between the two networks. This serves as a first step in establishing the necessary architectural foundation for development of an integrated CIS.

After transition is complete, working with business and technical stakeholders, the team will continue further development of user, business, data, and technical requirements to ensure continuous full and open transparency is maintained. Requirements related to key CIS attributes such as permissions, reports, dashboards, data access, system usability and system performance will serve to drive system design and requirements validation testing. The CNS team understands the importance of developing an intuitive, flexible and easy to use system and the criticality of gaining end user input to develop an optimal system used to measure the performance of the new organization.

The CNS team will begin the journey to a consolidated enterprise information system environment leveraging NNSA's current technology investments in SharePoint, Data Warehousing, and Enterprise Resource Planning (ERP) platforms at Pantex and Y-12. A data warehouse will serve as the point of data consolidation to be utilized by the Consolidated Information System (CIS) SharePoint based Portal to provide CNS, NPO, and NNSA leadership access to consolidated data from the existing systems. This system was in place until the single financial system was delivered on October 1, 2017.

By using this approach, CNS began the process of consolidated reporting, standardization, and cross-site alignment of core business processes without impacting production operations.

The consolidation of this data brings full transparency with improved visibility to NNSA, NPO, and CNS, reducing the need to comb through multiple reports from multiple systems. The upward reporting capabilities brings quick implementation of a cost-effective, intuitive web-based interface with minimal training time. In addition to the consolidation of data, the team will look for opportunities to retire existing applications whose functionality will be replaced by or integrated into the CIS or other enterprise systems. This approach presents a significant opportunity for additional cost reduction.

In parallel to the infrastructure consolidation activities, the team will continue to review and identify the specifics related to role based permissions, standardized reports, specialized dashboards and real-time data access. This approach ensures that access to information is controlled yet securely accessible. The benefit of this approach is that the CIS can grow in phases, providing NNSA, NPO and CNS access to performance data and visibility into critical operating and contractual management elements. The result is a simple, easy-to-install, easy-to-use CIS that will provide NNSA and the NSE community with the data needed to validate the cost savings we will achieve. A phased system implementation approach, proven valuable in past implementations, requires managing expectations and delivering focused aligned features that provide the desired outcomes. Proposed phases of the CNS implementation are detailed below:

CIS Phase 1:

CIS Initial Operating Capability (IOC) will encompass an intersite shared SharePoint environment that will be accessible from both Pantex and Y-12. This SharePoint environment will be structured to support various functional and governance information publishing requirements from each functional area. The initial content within this structural framework will be limited to descriptions of the functional areas and any information that the functional areas wish to publish within the environment.

CIS Phase 2:

Data Definition: After the successful deployment of the CIS IOC, the Information Solutions & Services Team will work closely with the functional organizations to establish a comprehensive governance framework and define their key performance indicators (KPIs), SLAs, and metrics needed to manage the mission effectively. Once these definitions are identified, the key information will be entered into the system to provide the comprehensive governance dashboards until Phase 3 is completed.

CIS Phase 3:

Integration and Automation: The collection and display of the information defined and manually updated in Phase 2 will be automated through the integration of key system feeds to allow the information to be processed, correlated and displayed automatically. These feeds will include real time, where applicable, data feeds from existing toolsets across the enterprise to minimize the human interaction required for this data collection and reporting capability.

These information feeds from 'element manager systems' across the enterprise will be aggregated and orchestrated via an Enterprise Data Warehouse that will gather all of these data feeds for pre-processing and correlation before populating the management dashboards within the presentation layer of CIS. The architectural model for this environment is outlined in **Figure 22**.

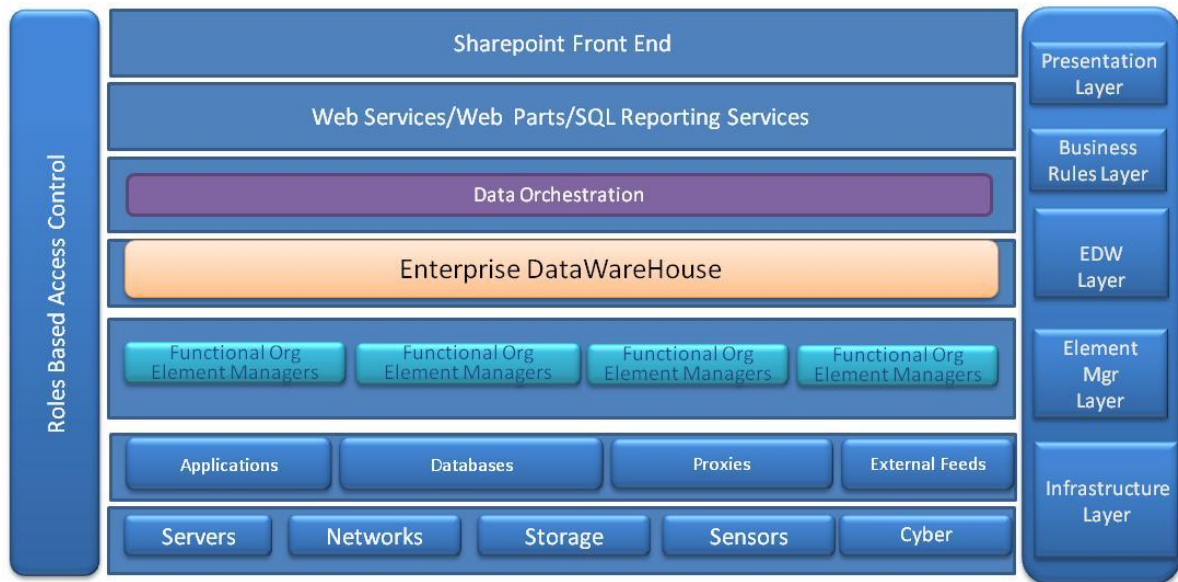


Figure 22 – Architectural Model for the Data Warehouse Environment

CIS Phase 4:

CIS Final Operating Capability (FOC) will encompass the final integrated system feeds to provide the final operating state of the CIS. The CIS will then move into operations and maintenance (O&M) lifecycle support with new features and integrations managed via the standard Configuration Management (CM) and Software Quality Assurance (SQA) processes.

Throughout all phases of deployment, the CIS system will control access to content via the Standard Active Directory Group Policy Definitions within SharePoint. Access to the Public Access Areas of CIS (Storefront, Functional Area Descriptions, Service Desk Ticket Status, etc.) will be available to all authenticated users. Access to business sensitive information such as HR, Finance, etc. will be limited to those groups and accounts with “Need-to-Know” access.

Pursuant to the deployment of Phase 4 FOC, the CIS is envisioned as becoming the ‘one-stop-shop’ for performance information related to the Operations and Management of the CNS Environment.

APPENDIX 1: MTP REQUIREMENTS COMPLIANCE MATRIX

MTP Requirement	Contract Section	Contract Sub-section	Contract Page #	MTP Page #	MTP Section
At a minimum, the Merger and Transformation Plan shall describe how the Contractor will:					
Manage merger of operations without negatively impacting mission	J	Appendix A-3.2	5	5-10	2.0 CNS Approach to Merger and Transformation
Ensure critical skills necessary to maintain capabilities	J	Appendix A-3.2	5	5-10	2.0 CNS Approach to Merger and Transformation
Identify and streamline redundant technical and business operations across the sites under this Contract	J	Appendix A-3.2	5	27-32	9.0 CNS Approach to Cost Savings, 10.0 Methodology Used to Develop Projected Cost Savings
Incorporate governance (Section J, Appendix A, Chapter I, 4.4)	J	Appendix A-3.2	5	11-16	4.0 Governance of the Merger and Transformation Activities
Maintain relationships and regulatory interfaces, and assume responsibility for permits with local, State and Federal entities, other DOE offices, and stakeholders.	J	Appendix A-3.2	5	5-10	2.0 CNS Approach to Merger and Transformation
Other Requirements:					
The MTP shall also include Performance Fee Incentives, with associated objectives, measures, and targets to be considered for inclusion in the Contract's Performance Evaluation Plan (PEP), which may be multi-year, and be used as consideration for additional Contract term.	F	5 (a)	17	27, 32-34	10.0 CNS Proposal Projected Cost Savings and Incentive Fee
The MTP described in Section F, F-7(e), includes the Timeline of Projected Cost Savings	I	19 (a)	31	34	Figure 19– MTP Revision – April 2017