

National Nuclear Security Administration

Honeywell FM&T

Performance Evaluation Report (PER)

NNSA Kansas City Field Office (KCFO)

Evaluation Period: October 1, 2019 – September 30, 2020

November 25, 2020

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Executive Summary

This Performance Evaluation Report (PER) provides the National Nuclear Security Administration (NNSA) assessment of Honeywell Federal Manufacturing and Technologies (FM&T) LLC, performance of the contract requirements for the period of October 1, 2019 through September 30, 2020 as evaluated against the Goals defined in the Performance Evaluation and Measurement Plan (PEMP). The NNSA took into consideration all input provided (e.g. CAS, Program Reviews, etc.) from NNSA Program and Functional Offices both at headquarters and in the field.

Honeywell Federal Manufacturing & Technologies (FM&T) submitted a Performance Self-Assessment Report that covered the rating period. FM&T is to be commended for the thoroughness of its report, which embraced the expectation of being self-critical as well as highlighting accomplishments. NNSA reviewed the self-assessment report and considered it in conducting its evaluation.

Performance against the Goals summarized below resulted in an overall rating of Very Good and a score of 87.4% for Honeywell FM&T.

FM&T continued to strongly support and deliver on the majority of NNSA mission requirements: however, a number of performance challenges were present throughout the reporting period. Issues in Goal 1 included continued production challenges on multiple components including high rates of nonconformance, unstable tester and gauge availability, and supplier reliability. Additional concerns with regard to ineffective collaboration in response to a DOE OIG investigation were noted in Goal 6. Significant performance accomplishments in Goals 2, 3, 4 and 5 were noteworthy this reporting period.

Specific observations for each Goal are provided in the following pages.

Goal 1: Mission Execution: Nuclear Weapons -- Successfully execute Nuclear Stockpile mission work for Defense Programs work in a safe and secure manner in accordance with DOE/NNSA priorities, Work Authorizations, and Execution/Implementation Plans.

Honeywell FM&T Amount of At-Risk Fee Allocation: \$12.8M Available Award Fee

Under this Goal, Honeywell FM&T earned a rating of Very Good and 85% of the award fee allocated to this Goal. Honeywell FM&T exceeded many of the Objectives and Key Outcomes, and met the overall cost, schedule and technical performance requirements of the contract under this Goal in the aggregate. During the year, the accomplishments greatly outweighed issues and no significant issues in performance exist.

FM&T has continued to be successful in its performance under this contract as described below. Many issues that were identified during the year have been resolved. FM&T is meeting performance expectations within expected cost towards the completion of Defense Programs' high priority items listed in the Getting the Job Done list.

FM&T was graded "Blue" on all 73 Level 2 milestones. There were zero year-end "Red" Level 2 milestones.

FM&T met the majority of the stockpile systems surveillance requirements ensuring completion of the stockpile assessment which included supporting a short-turn request for a W78 Neutron Generator Monitor Kit enabling a Minuteman III Test Flight. FM&T also successfully supported Limited Life Component Exchange (LLCE) requirements in a safe and secure environment, delivering over 50.000 items.

Additional program accomplishments include:

- Completed 48 B61-12 LEP First Production Units (FPUs). Additionally, 2 of 7 Respin FPUs were completed ahead of schedule.
- Improved W88 ALT 370 producibility ratings, and teamed well with SNL and LANL to manage technical issues and implement numerous improvements.
- Implemented effective production strategies under COVID-19 restrictions. minimizing production impacts, and supporting weapon programs with the necessary engineering resources and management oversight.
- Jointly with the Design Agency, completed 16 Conceptual Design Reviews (CDR), 28 Conceptual Design Gates, two Component Requirements Reviews, and two Baseline Design Reviews (BDR) on time in support of the W80-4 LEP.
- Coordinated closely with LANL to authorize a readily available, alternate material to support B61 mock pit requirements, resulting in an approximately \$700K cost savings.
- Shipped 91,336 out of 96,132 B61-12 LEP production components.
- Shipped 58,101 out of 58,501 W88 ALT 370 production components.

Program issues include:

- Continued B61-12 LEP and W88 ALT 370 production challenges on multiple components including high rates of nonconformance, unstable tester and gauge availability, and supplier reliability.
- Stopped work on certain W78 projects without notifying the Federal Program Office. Although the action was executed to prevent end of year cost overruns, FM&T has initiated a corrective action to address this concern. Cost estimating challenges occurred within the Management, Technology and Production (MTP) program, impacting NNSA's ability to adequately prioritize requirements and funding.
- Continued momentum is needed to disposition the existing non-conforming material volume and to prevent defects.

FM&T initiated multifaceted teams and improvement efforts in each of the quality assurance performance categories (Escapes, Scrap, Rework, Lots Accepted Trouble Free (LATF) and Travelers without Defects (TWO-D)). Escapes and Rework exceeded the established FY20 end of year goals. However, continued effort is needed to improve the remaining three metrics, specifically LATF, an indicator of supplier performance.

- Escapes: 45 with a Goal of < = 49 escapes based on EOY Quality Assurance Inspection Procedure (QAIP) submittals, deliveries, and Contractor Acceptance Verification (CAV) audits
- Scrap: 3.14% with a Goal of < 2.86%
- Rework: 0.85% with a Goal of < 1.03%
- LATF: 77.53% with a Goal of > 85.04%
- TWO-D: 55.82% with a Goal of > 70%

Goal 2: Mission Execution: Global Nuclear Security--Successfully execute authorized global nuclear security mission work in a safe and secure manner to include the Defense Nuclear Nonproliferation, Nuclear Counterterrorism, and Counter Proliferation and Incident Response missions in accordance with DOE/NNSA priorities, Work Authorizations, and Execution/Implementation Plans.

Honeywell FM&T of Amount At-Risk Fee Allocation: \$3.2M Available Award Fee

Under this Goal, Honeywell FM&T earned a rating of Excellent and 95% of the award fee allocated to this Goal. Honeywell FM&T exceeded almost all of the Objectives and Key Outcomes, and met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, the accomplishments significantly outweighed issues and no significant issues in performance exist. FM&T is meeting performance expectations within expected cost.

Due to COVID-19, the site experienced various impacts in the form of cost, scope and schedule.

FM&T provided support to the Office of Material Disposition by continuing multiple procurements significant to the Dilute and Dispose program, including initiatives to significantly reduce the cost of consumable supplies. Acknowledging the challenges and risks associated with a single source supply chain, FM&T engineering teams worked extensively to expand the supplier base for components needed to support program activities. Continuous Quality Assurance/Quality Control awareness yielded error correction in the vendor's production drawings, resulting in projected cost avoidance to the Program. FM&T delivered 500 production and 200 training kits in support the Office of Material Disposition Dilute and Dispose program. Communication during COVID-19 has been outstanding, and FM&T has been extremely responsive in identifying alternate methods of accomplishing work and minimizing schedule delays.

FM&T Subject Matter Experts (SMEs) actively participated in International Nonproliferation Export Control Program working group meetings to develop a new workshop on data analytics and targeting strategic good shipments. The course is designed for in-person or remote delivery. FM&T personnel successfully supported the first virtual delivery of the Commodity Analysis Support for Enforcement (CASE) 6-day workshop for a foreign partner, Government of the United Arab Emirates. FM&T also effectively served as the lead for export control engagement with Taiwan. FM&T delivered excellent, high quality work with reviews of missile export licenses, supported the multilateral Missile Technology Control Regime (MTCR) activities and performed timely technical reviews of missile-related interdiction cases. Overall, Honeywell FM&T provided 475 technical and intelligence-based assessments in support of DOE/NNSA Weapons of Mass Destruction interdiction programs. FM&T's responsiveness was outstanding during COVID-19 by providing critical analysis and first-sign off recommendations on dual-use export licenses while meeting the FY20 Office of Management and Budget metric.

FM&T successfully provided critical planning for NNSA Office of Nuclear Incident Response (NA-84) exercises, supported field operations for Stabilization cities, sustained demonstrated technology development to enhance mission readiness, met deliverables on time, effectively managed the 100% watch bill requirement for the National Render Safe mission, supported special requests for information and assistance, and successfully demonstrated continuity of operations at the onset of and through COVID-19.

FM&T provided procurement services for Joint Technical Operations Team (JTOT), Stabilization (STAB), and Accident Response Group (ARG), highlighting the increased timeline and funding in support of the National Capability Forward Initiative to accelerate the delivery of enhanced regional technical equipment. Other achievements include:

- Provided successful equipment management, maintenance, procurement and depot operations for Nuclear Forensics Operations.
- Maintained operational readiness for nuclear forensics deployable team and all associated critical equipment in support of the post-detonation response mission.
- Supported the training requirements for Stabilization during the COVID-19 response posture by revamping the sustainment schedule.
- Assisted the Stabilization Program maintenance requirements during the COVID-19 response posture by prioritizing the requirements and extending lower priority

- requirements in adherence with guidance.
- Supported the delivery and return of interagency-provided classified training aids to provide awareness of the Counter Weapons of Mass Destruction (CWMD) mission responsibilities within Nuclear Emergency Support Team (NEST) to NNSA leadership.
- Supported the NEST watch bill requirements for JTOT and ARG, highlighting the Nuclear Response Group Readiness Operation Center (NRGROC) logistician and Render Safe Watch Officer positions with no gaps in coverage.
- Delivered eight Next Generation Neutron Multiplicity Counter (MC-15) ahead of schedule and under budget.

Goal 3: DOE and Strategic Partnership Projects (SPP) -- Successfully execute high-impact work for DOE and Strategic Partnership Projects Mission Objectives safely and securely. Demonstrate the value of the work in addressing the strategic national security needs of the U.S. Government.

Honeywell FM&T Amount of At-Risk Fee Allocation: \$20M SPP Fixed Fee (\$11.4M GS/\$8.7M NWP)

Under this Goal, Honeywell FM&T earned a rating of Excellent and 95% of the award fee allocated to this Goal. Honeywell FM&T exceeded almost all of the Objectives and met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, the accomplishments significantly outweighed issues and no significant issues in performance exist.

FM&T met performance expectations within expected cost and delivered on commitments resulting in \$499M (Nuclear Weapon Programs (NWP) \$219M and Global Security (GS) \$280M) mission scope execution against a \$501M spend plan. FM&T delivered over 53.000 items across the DOE and national security community. and teams identified cost avoidances/savings of \$2.9M by focusing on product requirements and sourcing strategies.

GS partnered with NWP to conduct quality reviews of over 300 weapon system documents and supported deployment of four production testers. The quality assurance activities included validation of work instructions and requirements mapping and identified more than 2,900 anomalies. The test equipment support kept the four NWP testers on schedule to meet milestone dates.

FM&T conducted multiple vendor assessments in support of Nuclear Enterprise Assurance. These assessments enabled decision making on supply chain assurance effectiveness. FM&T optimized the assessment process which led to a 50% reduction in cycle time.

FM&T supported DOE research and development efforts using the Scanning Electron Microscope (SEM) analysis of next generation pore formers. GS accelerated the successful usage of the SEM capability.

FM&T worked with Defense Microelectronics Activity (DMEA) Trusted Access Program Office (TAPO) to develop and deploy a new accounting and costing tool which resulted in a 70% reduction in proposal processing time.

FM&T supported the Air Force rebaseline efforts that included quick delivery of detailed cost data to support the Service Cost Position (used by DoD to set program funding levels through FY31), schedule alignment with the Design Agency and participation in the Integrated Baseline Review. In coordination with other weapons programs, the Mk21 quickly moved into a predominantly telework environment as part of the COVID-19 response with no impact to the critical path program deliverables. FM&T supported and sent representatives to the Flight Test FTU2, in addition to conducting four Final Design Reviews for Cables, Fireset Interface Module (FSIM), Path Length Module (PLM), and Radar Respin Printed Wiring Boards. Mk21 Process Prove-In (PPI) builds for the Missile Interface Control Module (MICM), FSIM, and Terminal Protection Device (TPD) components were also initiated.

FM&T supported the Mk21A feasibility trade study development team. This effort was led by Sandia to analyze technical options and the associated risks for the proposed Air Force program. FM&T provided production impacts and identified producibility risks with the multiple design options that were evaluated.

FM&T supported a DoD mission critical project during the pandemic with successful deployment of custom circuit boards, allowing the "extremely satisfied" customer to meet a critical window of opportunity.

FM&T engineered a solution for one sponsor to benefit hearing-impaired personnel working inside a Sensitive Compartmented Information Facility (SCIF). This project enabled communication within the secure environment by modifying a commercially available product to meet the specific data security requirements.

FM&T New Mexico Operations completed the first shipment of blast valves to the Cheyenne Mountain Complex through a collaborative effort, FM&T completed testing and assembly of a production board using non-invasive reverse engineering methods in a remote location with limited access, ahead of schedule and under budget.

Goal 4: Mission Executive: Science, Technology, and Engineering--Successfully advance national security missions and advance the frontiers of ST&E. Effectively manage Kansas City National Security Campus Plant Directed Research and Development (PDRD) and Technology Transfer programs in a safe and secure manner in accordance with DOE/NNSA priorities, Work Authorizations, and Execution/Implementation Plans.

Honeywell FM&T Amount of At-Risk Fee Allocation: \$0 Available Award Fee

Under this Goal, Honeywell FM&T earned a rating of Excellent and 99% of the award fee allocated to this Goal. Honeywell FM&T exceeded almost all of the Objectives and met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, the accomplishments significantly outweighed issues and no significant issues in performance exist.

FM&T continued to expand capabilities through focused high-impact research and development (R&D) and technical innovations to benefit mission and customer needs and is meeting performance expectations within expected cost. Program Management, Systems Engineering, and Center of Excellence (COE) leaders partnered to create an Advanced and Exploratory (A&E) organization. This highly collaborative organization furthered FM&T's "6.2a and Left" objectives by identifying, mapping, funding, researching, developing, and inserting technologies and capabilities for current and future weapon systems.

FM&T collaborated with National Technology and Engineering Solutions of Sandia, LLC (NTESS) to develop a joint five-year "Simulation for Production Strategy" that was delivered to the Office of Stockpile Assessments (NA-114) and the Office of Institutional & Joint Programs (NA-115). This roadmap was developed to align technology maturation plans and support Advanced Simulation and Computing program objectives to solve production challenges. FM&T also led a pilot project, Model-based Authorized Product Realization-4 Design Sites (MAPR-4Ds), to demonstrate five sites (SNL/NM, SNL/CA, LLNL, LANL and KCNSC) could execute a high-tempo Model-Based Enterprise (MBE) process to design, document, simulate, and fabricate an additively manufactured platform culminating in a Research and Sounding Rocket (RASR) flight just three months from project inception.

By optimizing dry film lubricant processing parameters, FM&T has enhanced the recently qualified process for the B61-12 LEP and is also targeted for war reserve (WR) insertion on the W80-4 LEP. FM&T research has provided insight into the main machining challenges of a metallic alloy. These efforts led to improved processing and enables the B61-12 LEP and the W88 Alt 370 programs to remain on-schedule.

Utilizing results from cross-site Additive Manufacturing (AM) Gas Bottle project, FM&T implemented a new process to minimize porosity in metal AM parts for the W80-4. This new process reduced development time by one-third and obtained successful parameter sets for critical components and features. During normal operations, some plant activities require an operator and inspector to work in proximity. During COVID-19, in order to maintain social distance requirements, FM&T leveraged recent Extended Reality work by deploying a camera feed in a secure plant environment and maintaining production efficiencies.

Leveraging FY18 and FY19 R&D successes, Femtosecond (FS) Laser Machining technology is being developed in collaboration with the University of Nebraska-Lincoln to enable highly accurate machining for gages and parts. The new FS laser machining technology achieved results unattainable by traditional manufacturing techniques, potentially capable of reducing processing time on a wide range of materials to include metals, ceramics,

polymers, and composites. Research accomplishments reduced the time to machine certain features by 70%.

Through FY20, there were 119 invention disclosures filed, 43 patent applications filed, and 28 patents awarded. Patent applications and awards increased significantly over last fiscal vear.

Goal 5: Mission Enablement--Effectively and efficiently manage the safe and secure operations of the Kansas City National Security Campus while maintaining an NNSA enterprise-wide focus; demonstrating accountability for mission performance and management controls; successfully executing cyber and physical security requirements, and assure mission commitments are met with high-quality products and services while partnering to improve the site infrastructure. Performance will be measured by the contractor's assurance system, NNSA metrics, cost control, business and financial operations, project baselines, implementation plans, assessment and audit results, with a focus on mission enablement.

Honeywell FM&T Amount of At-Risk Fee Allocation: \$9.6M Available Award Fee

Under this Goal, Honeywell FM&T earned a rating of Excellent and 91% of the award fee allocated to this Goal. Honeywell FM&T exceeded almost all of the Objectives and met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, the accomplishments significantly outweighed issues and no significant issues in performance exist. FM&T is meeting performance expectations within cost.

FM&T Information Technology team exceeded expectations in supporting mission execution, by increasing IT infrastructure capacity to support the increased telecommuting workload due to COVID-19. IT systems voice and data were expanded to support 10 times the number of remote users within 2 weeks. In addition to expeditiously meeting expanded telework needs, all previously planned IT projects were delivered within timelines. Additionally, FM&T developed an IT operational risk application and process, providing Federal Managers predictive data on operational, project, and Cyber risk; this is the first-such tool deployed in NNSA.

FM&T made significant contributions in developing an NNSA enterprise-wide approach to financial fraud risk and showed positive year-long performance in other financial management measures. NA-MB noted two significant accomplishments for COVID-19 deliverables and FM&T's utilization of the Minorities Serving Institutions Partnership Program (MSIPP).

FM&T's support to the Nuclear Security Enterprise (NSE) Workforce Strategy Group was exceptional. For the NSE's first virtual intern panel, FM&T's panelists provided interns an overview of the unique NSE mission. FM&T also participated in the first NNSA/NSE virtual job fair, speaking with 64 potential candidates in an effort to meet FY20 hiring goals.

The FM&T Law, Contracts, and Export Control (LC&E) Department continued to engage in multiple areas as a force multiplier to build upon its mission success. The Law Department was instrumental in increasing M&O contract compliance by deploying a searchable conformed copy of the contract, establishing a searchable database of Contracting Officer correspondence to enhance tracking of contract deliverables, and educating the work force on its operation and effect in instructing Plant operations. The Department revised all standard flow-down prime contract requirements to ensure compliance in contracting matters and developed standard tax exemption forms to expedite contract award compliant with tax exemption savings. LC&E added to Enterprise-wide legal coordination by initiating and hosting NNSA General Counsel-NSE Site Counsel standing VTC—very powerful tool in aligning lab/plant/site legal analysis during COVIC-19 challenge.

FM&T was able to hire over 700 people to support the growing mission during the pandemic.

Environment Safety & Health (ES&H) engagement with operations activities remained effective. ES&H leadership changes were managed with no visible impact to continued safety management. Honeywell focus on objectives and safety are reinforced in the daily or frequent Tier meetings with workers. Key priorities and issues flow up the Tier ladder. FM&T exceeded its corporate performance index. Total Case Rate (TCR) and Days Away, Restricted or Transferred (DART) were better than general industry. Safety culture continued to be a high priority between Honeywell corporate and FM&T.

FM&T successfully managed maintenance operations providing outstanding support to plant operations and production requirements despite an extremely tight budget in FY20. FM&T maintenance performance metrics remained very high despite a significant increase in production workload. FM&T improved communications and transparency working closely with both KCFO and HO identifying critical issues and over target maintenance requirements at the KCNSC.

Concern about the fidelity of Honeywell FM&T's initial evaluation of space management requirements resulted in the need for NNSA to hire an independent third party to address issues with the FM&T study.

FM&T managed construction projects, such as including high profile and emergent projects in KCSTEP, despite evolving plans. Requirement changes have originated from stakeholders both internal to FM&T and external with NNSA. Defining all activities in the KCSTEP plan was delayed due to slow progress maturing some project's scope, cost, and schedule and formatting integrated needs that aligned with NNSA programming and budgeting Building 2 Low Humidity Production Revitalization and Building 2 Cleanroom Class 100 Upgrade projects, which experienced significant changes in budget and scope

after the projects started. Overall, construction management and execution remained very positive for KCNSC.

Overall, Honeywell FM&T met sustainability expectations. Energy intensity was reduced by $\sim 5\%$, a favorable achievement, while water intensity experienced no reduction. KCNSC purchased renewable energy credits totaling 20% of total energy which contributed to the renewable energy goal of 30.5%. KCNSC maintained environmental stewardship to include the Leadership in Energy and Environmental Design (LEED) "Gold" National Security Campus and a large off-site office building that is LEED "Silver" certified. Honeywell FM&T metered 100% of its buildings and identified an environmentally sustainable opportunity. A pilot was successfully conducted to use metering data for fault detection and diagnostics. The pilot sets the stage for future use of fault and detection diagnostics to identify problems and opportunities for energy savings as well as improve building energy audits.

FM&T collaborated with KCFO in planning and executing safely throughout COVID-19 challenges. Work continued on priority missions and key safety implementations such as the Fire Hazards Analysis and remediation. Continual growth in employee strength exemplifies good operations and safety competency development. Although COVID-19 realities have redefined work practices, integrated work planning and control remains effective.

FM&T Security continued to support multiple facility expansion initiatives to facilitate the growing mission; status, issues, and critical decision needs were well-communicated. Security incident self-report rates continued to indicate a healthy security culture. Functional disconnects and lack of foundational knowledge of contractual requirements were an issue; evidenced by multiple instances of contractor submittals which were noncompliant and not integrated. The demands on the security organization to support mission growth coupled with the influx of less experienced personnel may have contributed to these issues. Rapid modifications to address COVID-related personal safety concerns while ensuring the security of NNSA assets were well executed.

FM&T Cyber Security team accomplished and continued to support mission execution by securing NNSA's data during the significant expansion of remote workers due to the COVID-19 pandemic. FM&T's phishing education program continued to mature and has proven extremely effective as ever increasing real world phishing attacks were caught and reported quickly by end users to the Cyber team for immediate action.

NA-MB commended FM&T CFO staff for supporting NNSA on development of the COVID-19 cost reporting process and other high priority COVID-19 financial deliverables. FM&T supported NA-MB on several actions with extremely short turnaround times and prominent importance to executing NNSA's mission during the pandemic.

FM&T exceeded expectations in four of the six Small Business categories, and was below expectations in two categories, Veteran Owned Small Business (VOSB) and Service-Disabled Veteran Owned Small Business (SDVOSB). Overall, Small Business program

achievements were good given current operating conditions. FM&T had to de-commit \$5.8M due to legal issues on an SDVOSB contract which negatively impacted VOSB and SDVOSB performance (original PO commitments were in FY19). Although a comprehensive Recovery Plan was executed for these below goal categories, performance remained below goal for FY20.

FM&T received two National Safety Council awards and four NA-50 Excellence awards. DOE selected FM&T's Karen West to receive its FY19 Facility Management Contractor (FMC) Small Business Program Manager of the Year Award. Precision Ferrites & Ceramics, nominated by KCNSC, received the FY19 Small Woman Owned Business of the Year Award. SCMC awarded FM&T's Jessica Burghart the FY19 Small Business Advocate MVP Award.

Goal 6: Mission Leadership--Successfully demonstrate leadership in supporting the direction of the overall DOE/NNSA mission, cultivating a Performance Excellence Culture that encompasses all aspects of operations and continues to emphasize safety and security, improving the responsiveness of Honeywell FM&T's leadership team to issues and opportunities for continuous improvement internally and across the Enterprise, and parent company involvement/commitment to the overall success of the Kansas City National Security Campus and the Enterprise.

Honeywell FM&T Amount At-Risk Fee Allocation: \$6.4M Available Award Fee

Under this Goal, Honeywell FM&T earned a rating of Very Good and 83% of the award fee allocated to this Goal. Honeywell FM&T exceeded many of the Objectives, and met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the year, the accomplishments greatly outweighed issues and no significant issues in performance exist. FM&T is meeting performance expectations within cost.

At the on-set and during a challenging COVID-19 pandemic environment, FM&T's leadership proactively communicated stockpile management and secure transportation execution challenges and implemented solutions to maintain high priority stockpile and secure transportation commitments. FM&T leadership remained responsive to Non-Nuclear Component Capability (NNCC) study requests, initiated planning for DOE-IN and Nuclear Weapon Programs Building 4 co-utilization, drove short term infrastructure expansion plans and engaged with a broad array of KCNSC stakeholders. FM&T leadership collaborated with the NNSA Federal Program Office and Sandia National Laboratories to respond to Independent Review Team (IRT) and congressional inquiries and to develop an integrated NNSA action plan. FM&T collaborated with Sandia National Laboratories to perform objective producibility assessments, implement producibility improvements across multiple products, deliver a jointly authored W80-4 Lessons Learned and Best Practices report, and drive additional cost savings through the New Product Introduction (NPI) partnership.

Although notable FM&T and SNL relationship improvements were identified, FM&T did not effectively collaborate during a DOE OIG investigation. Other concerns with leadership of FM&T operations were also noted. FM&T's corporate parents have not adequately supported the on-site Management and Operating (M&O) contractor team when they are not meeting NNSA expectations and conversely are involved in decisions that should be made by the M&O contractor. FM&T corporate parents should be mindful of the special trust and responsibility invested in them as a partner in the NNSA National Security Enterprise and their role in augmenting or reinforcing the M&O contractor team when additional resources or specialized expertise are required.

Jointly with LLNL, FM&T's leadership developed a strategy to meet long term polymer production requirements, proactively positioning the enterprise for success. During FY20, FM&T's leadership deployed a systemic approach to address the high volume of nonconformances and prevented a substantial number of additional non-conformances. Continued leadership focus is needed on vendor and internal quality management to maintain the positive non-conformance burndown trajectory, to prevent additional defects, and to mitigate multiple FPU threats driven by delivery of discrepant material (springs, cables, PWB delamination, etc.). As part of this evaluation, NNSA considered external contributing factors, like design for manufacturing and product realization schedules, on the volume of non-conformances.

During the COVID-19 environment, FM&T prioritized and accomplished mission essential work, implemented innovative factory efficiencies, maintained a productive work force while also meeting CDC safety requirements, quickly deployed COVID related employee training and safety protocols, rapidly increased IT infrastructure to accommodate a significant increase in virtual workforce needs, effectively managed cost, communication and coordination.

FM&T expanded the integrated "OneNNSA" approach to continuously improve performance and mission execution by playing a significant leadership role partnering with the Office of Policy and other NSE sites in development and integration of the NNSA 25 Year Site Strategic Plan. This plan was deployed to support the development of individual goals and objectives for all employees. Furthermore, FM&T worked with the Kansas City Field Office (KCFO) to develop the KCNSC Strategic Integrated Roadmap, which will be shared with other field offices.

NSE Operating System Working Group (OSWG) and New Product Introduction (NPI) were highlighted in NNSA's "2020 Industry Best Practices" report to Congress. FM&T validated \$10.5M in NPI cost avoidance on the W80-4 program. OSWG established inter-site Tier meetings (Tier 2.5) between FM&T and SRS, which resulted in "at-standard" FM&T performance on 93.8% of the Limited life Components (LLCs) and SRS stock levels of 100% of the LLCs.

Supply Chain Management Center (SCMC) achieved a record performance of \$273M in annual cost savings and surpassed the \$1B mark in total savings since 2013.

FM&T successfully completed the Roof Asset Management Program (RAMP) re-compete and awarded the \$500 million dollar contract in FY20. This was the result of a year-long effort. RAMP awarded 20 projects across the complex (16 NA-50 projects and 4 site funded projects). RAMP costed \$58.6M dollars in FY20, despite major challenges from COVID and three large projects were delayed due to site waste issues. RAMP finished FY20 with only \$800K in uncommitted dollars. RAMP completed the design, solicitation and award of \$40M dollars during the winter months to support FY2021 construction. Given all the uncertainties of executing work across the complex, this was a significant accomplishment.