

# National Nuclear Security Administration

Honeywell FM&T

Performance Evaluation Report (PER)

NNSA Kansas City Field Office (KCFO)

Evaluation Period: October 1, 2018 – September 30, 2019

December 12, 2019

## **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, 2018 through September 30, 2019 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 81.2% for Honeywell FM&T.

FM&T continued to strongly support and deliver on the majority of NNSA mission requirements; however, an increased number of performance challenges were present throughout the reporting period. Issues in Goal 1 include quality defects and major modernization program delivery challenges. Additional concerns with regard to reactive collaboration between sites to resolve design and production issues 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: \$12.5M Available Award Fee

Under this Goal, Honeywell FM&T earned a rating of Very Good and 76% 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 met some performance expectations towards the Defense Programs' high priority items listed in the Getting the Job Done list and Level 2 milestones.

FM&T was graded "Blue" on 76 of 80 Level 2 milestones. Two B61-12 Life Extension Program (LEP), one W88 ALT 370 and one W76-1 Level 2 milestone ended the year "Red".

FM&T met the majority of the stockpile systems surveillance requirements ensuring completion of the stockpile assessment and Limited Life Component Exchange (LLCE) requirements in a safe and secure environment.

FM&T successfully shipped many B61-12 LEP and W88 ALT 370 production and development components in FY19.

## Program accomplishments include:

- FM&T completed several B61-12 LEP and W88 ALT 370 First Production Units (FPUs).
- FM&T implemented new processes that positively impacted the business by saving space, improving safety, quality and speed and has current estimated savings of 1.25M.
- FM&T successfully completed temperature testing to support the W80-1.
- Utilizing new equipment and quality assurance processes, FM&T qualified parts ahead of schedule in support of critical mission activities.

### Program issues include:

- Despite the current design related capacitor issue, there were components on the critical path potentially impacting both B61-12 LEP and W88 ALT 370 system FPUs. There were additional factors that contributed to component schedule delays.
- FM&T ended FY19 six below the Program requirements for the W76-1 AF&F due to a nonconformance issue identified in the last quarter. This shortfall did not impact the receiving sites build schedule.
- Multiple weapon program components are tracking to not meet full rate production requirements.

FM&T Weapon Quality metrics (Escapes, Rework, Scrap and Lots Accepted Trouble Free (LATF)) did not meet established FY19 end of year goals. Scrap and rework metrics were a significant challenge in FY19 due to the amount of product rated at a low producibility. Noteworthy is FM&T's recent initiative that involves a company top management walk down of the processes that led to quality Escapes demonstrating leadership commitment to improving quality. FM&T has initiated actions to determine the extent of condition and address systemic issues associated with FY18 and FY19 weapon product procurement and receipt. A significant backlog of non-conforming reports (NCR) require disposition. FM&T has been requested to evaluate the NCR disposition process, to maintain focus on internal disposition and influence the expediency of external disposition (Design Agency approval). FM&T established a "Defects Per Unit" data base analysis tool and created project teams to reduce NCRs needed for parts that are the highest contributors.

NNSA considered external contributing factors like the substantial work load volume, design changes beyond phase 6.3, design to manufacturing maturity challenges, and complex qualification strategies as part of this goal's evaluation.

**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: \$3.1M 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 provided excellent support to the Office of Material Disposition by initiating multiple procurements critical to the Dilute and Dispose program. FM&T successfully leveraged its manufacturing expertise to deliver additional demonstration units for the Material Management and Minimization (M3) efforts. FM&T was instrumental in identifying and implementing initiatives to significantly reduce the cost of consumable supplies for the program that should result in future savings of more than \$1.75M per year after the program enters production.

FM&T continued to deliver excellent, high quality work in the areas of missile export licenses, support to the multilateral Missile Technology Control Regime (MTCR) meetings, and timely technical reviews of the missile-related interdiction cases. FM&T provided 652 technical and intelligence-based assessments that represented 126% of the assessments assigned to the site. FM&T provided outstanding technical support in tracking developments of additive manufacturing and any potential nonproliferation or export control concerns. FM&T provided excellent technical expertise and logistical support to the International Nonproliferation Export Control Program's (INECP) Taiwan data analytics training event and development of a Department of State funded scenario based exercise.

FM&T successfully executed multiple activities in support of the Counterterrorism and Counter-proliferation program. FM&T successfully maintained readiness for the nuclear forensics deployable team in support of post-detonation response operations and completed all assigned tasks consistent with the Office of Nuclear Forensics' task plan for the evaluation period. FM&T supported the stand-up of the 12th Stabilization City Team and multiple city training events. FM&T facilitated the Stabilization Program Team Leader conference that included the Deputy Assistant Secretary, Operations Support Directorate, Department of Homeland Security; supported overseas operations; and revamped the curriculum for initial Stabilization Team member training reducing contact hours and adding hands-on training. FM&T continues to be the engineering lead in developing future disablement capabilities and has been successful in preparing Stabilization City equipment and training to meet future roll-out dates. FM&T assisted in reducing carryover through timely purchases and resolved logistical issues allowing the Joint Technical Operations Team and Accident Response Group to perform their operational mission successfully.

**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: \$0.0M (Fixed Fee Only)

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 delivered on commitments resulting in \$454M in mission scope execution through September 2019 with successful completion of 39,112 deliverables and a delivery performance of 96%. Of the \$454M, 55% (\$249M) was in support of Global Security (GS) mission and 45% (\$205M) was NWP support.

FM&T provided an intelligence dimension to NNSA Nuclear Enterprise Assurance (NEA) supply chain risk management mission through all-source vendor threat assessments and briefings in FY19. The assessments and briefings assisted the KCNSC NEA team in decision-making process regarding the surety of complex supply chains for components critical to the nation's Nuclear Security Enterprise.

FM&T developed a new capability combining processing techniques to produce samples that sustain reverse engineering capabilities for functional descriptions of integrated circuits. NWP mission assistance was provided by reducing cycle time on imaging samples, allowing completion of a stringent customer deadline on time.

FM&T provided DOE/NNSA mission support that positively impacted operational availability including direct support for the B61 and B83 delivery platforms, the B52 engine cables and exciter box, the B2 high voltage power supply, the F107 critical engine part sustainment and circuit board reverse engineering.

FM&T supported the Mk21 Fuze Replacement Program for the Air Force, executing \$51.9M in SPP and ICO scope. A Performance Management Baseline was established, but later readjusted when the customer requested a design change and reduced funding. FM&T quickly developed a strategy to ramp down spending while limiting the programmatic impact. These challenges were communicated with KCFO and the Air Force in a transparent and timely manner.

FM&T was able to repurpose an Ion Mill machine that was to be excessed from NWP to GS production, resulting in \$1.2M cost savings at KCNSC and development of a new capability. Tooling and instructions for the NAVAIR program were also developed that allow the Air Force to repair damaged radomes on site instead of shipping radomes back to the manufacturer, resulting in approximately \$650K in cost savings.

**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 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 continued to innovate with new processes and strategies by moving the most promising technologies from idea to insertion in order to impact current and future mission requirements. The Centers of Excellence (COE) and Chief Engineer met with SNL/CA and LLNL W87-1 Systems teams, LANL Q18 and Federal Program Office to propose technology options that are on a path to become the baseline for future weapon systems. These initiatives could reduce schedule and hazard risks at a significant cost avoidance.

Consortiums have become an effective part of the FM&T strategy for executing research through external academic, industrial, and national laboratory partnerships. FM&T successfully placed multiple contracts for technology maturation-related projects this year, several weeks faster than in FY18.

FM&T closed a gap identified in Period 1 on Office of Science and Technical Information (OSTI) submission of technical publications. There were 25 publications uploaded in FY19 and work is ongoing to ensure future publications are considered for submission. In FY19 there were 125 new invention disclosures filed, 35 patent applications filed, and 15 patents awarded compared to 58 invention disclosures, 12 patent applications, and 11 patents filed in FY18.

**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: \$9.3M 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 was recognized for Procurement Evaluation Re-engineering Team (PERT) Best Practices in July 2019 for Small Business Initiatives including DOE Mentor Protégé with UTA and Small Business Forecasting Tool. FM&T's anticipated small business achievement of 56.1% will exceed target of 52.0%. FM&T exceeded targets for Women-Owned Small Business, Veteran Owned Small Business (VOSB), and Service-Disabled VOSB, but will not meet targets for Small Disadvantaged Business, and HUBZone. FM&T provided strong support for the Nuclear Security Enterprise recruitment strategy.

FM&T excelled in business operations, financial management, financial transparency, budget formulation, and internal controls for FY19. FM&T volunteered to lead the review on FAR 52.216-7 with other contractors to determine what clauses are applicable and which are not. The finance leadership continued to drive controls, compliance and partnering to address ongoing and emerging requirements.

FM&T's world class safety culture is continuing its industry leading safety record while headcount increased by 20%. Total Recordable Cases (TRC) is 0.26, and the Days Away, Restricted, or Transferred (DART) is 0.13. NMNSC has achieved 6 years without a lost work day case.

FM&T completed the series of special drills/exercises including "no notice" activation for the Emergency Response Organization (ERO), functional active shooter at KCNSC, and participated in SNL full-scale active shooter exercise.

FM&T's Legal established a Non-Disclosure Agreement (NDA) framework with other NSE sites. The Memorandum of Understanding (MOU) allows for advancement of partnerships throughout the NSE by streamlining information sharing practices.

FM&T's Supply Chain Management Center (SCMC) completed 38 eSourcing events totaling \$6 million worth of value and \$3.2 million of savings. Commodity agreement spending was driven to \$11M, realizing 24% savings. FM&T also completed 4,327 eStore transactions.

This level of tool usage yields \$7.1M of strategic tool enabled savings to date. FM&T reported strategic site savings of \$17M for a total Strategic Savings of \$24.1M.

FM&T in support of the increase weapons mission load completed over 400 capital projects including 180 new equipment installations, leased and occupied an additional office building; however, FM&T struggled to adequately plan and acquire additional space to support the growing weapons workload. FM&T appointed a new person to manage the short term and long term facility needs to resolve this issue. FM&T did not adequately plan recapitalization projects which resulted in poor execution and continues to be impacted by changes in mission requirements. FM&T struggled to explain O&M costs including lease costs. FM&T also needs dedicated resources to manage current and planned real estate actions.

FM&T continues to work on addressing the level of detail and supporting documentation that it provides to the Contracting Officer for subcontract consent. FM&T is actively working to improve issues by including a summary email template with each request and full access to the file for proposed subcontract solicitations and/or subcontract awards.

FM&T's work on understanding and addressing the problem of Category B cell phone incidents at the site is paying off. These incidents are at an all-time low for the year.

FM&T's physical security organization continues to experience issues with conducting self-assessments and developing effective corrective actions.

FM&T's mission requirements and staffing increased which increased energy and water intensity. While the increases were slight, FM&T is encouraged to look at opportunities for efficiencies.

FM&T continues to successfully meet the needs for long term stewardship; however, invoices need to be submitted timely. In addition, FM&T successfully completed government performance and results act milestones early and others on time.

**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: \$6.2M Available Award Fee

Under this Goal, Honeywell FM&T earned a rating of Good and 70% of the award fee allocated to this Goal. Honeywell FM&T has exceeded some 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 slightly outweighed issues and no significant issues in performance exist..

FM&T has been supportive of NNSA's efforts on the Nuclear Security Enterprise (NSE) Recruitment Strategy Group. FM&T is leading the Supply Chain Management Center (SCMC) team that will be tasked with purchasing different products from different vendors for the NSE. Some of the products are branding and marketing materials as well as recruitment software. These efforts will lead to broader knowledge of the NSE as well as more efficient use of resources as all partners get on the same platform for recruiting. FM&T is an enthusiastic partner/recruiter at the NSE Days and is a willing partner on the team.

FM&T initiated and took a greater leadership role in defining inter-site programmatic approaches such as New Product Introduction (NPI) and Tier 6/7 meetings to improve functional interfaces and increase NSE integration.

In FY19, FM&T adequately demonstrated leadership in support of the Office of Secure Transportation (OST) mission. Leadership at FM&T continued to support the values and attributes of the OST Strategic Plan, by providing the necessary resources to complete OST Task Agreements within budget and on time. OST considers the level of communication and trust with FM&T as highly effective.

Additional Leadership Accomplishments include:

- FM&T's Supply Chain Management Center (SCMC) enabled strategic sourcing cost savings at NNSA and EM sites totaled \$375.9M; surpassing their year-end goal of \$174.9M by \$201M. Both NNSA and EM FY19 cost savings were record high savings, NNSA \$282.2 and EM \$93.7M.
- FM&T's recognition for Small Business Initiatives, leadership in establishing a Non-Disclosure Agreement (NDA) with other NSE sites to advance partnerships and streamline information sharing, and high performing safety record demonstrates strong leadership attributes in business, legal and safety.
- The Roof Asset Management Program (RAMP) has improved procurement efficiency and timeliness, resulting in record spend towards project execution completing 35

- projects (124 buildings) and costed over \$60M dollars in FY19, a new record. In addition, there is \$90M of design on the shelf to support current and future year projects.
- FM&T management has adequately demonstrated leadership in supporting our mission of achieving 80 pits per year (ppy). FM&T continues to be responsive to requests and ensuring quality parts are delivered on schedule to support execution of the mission.

#### Leadership Issues include:

- FM&T senior leadership did not provide proactive engagement and leadership in support of on-going warhead modernization activities, in particular the coordination and collaboration required on the B61-12 LEP and W88 Alt 370 with senior leadership from the Design Agency. Management and technical issues persisted for longer than optimal versus escalating and bringing forward solutions. Additionally, FM&T senior leadership was slow to account for DoD delivery schedules as part of the warhead requirements. As a result, NNSA was limited in providing options that optimize meeting schedule and warhead requirements for consideration by the DoD and ultimately the Nuclear Weapons Council for down select to proceed with development and production. NNSA acknowledges FM&T initiated and led the Tier 6/7 escalation process and the New Product Introduction (NPI) initiative and these efforts of increased engagement and management improvements benefit the upcoming W80-4 LEP and W87-1 Modification Program, and NNSA will monitor continuous improvement efforts to reduce costs and schedule risk in these programs.
- FM&T was late to communicate year-end funding variances. FM&T escalated communication in September 2019 regarding the need to shut down work on the B61 and W80, if funds were not received. As a result, NNSA issued a memo directing FM&T to continue work. However, FM&T needs to improve communication at the right levels within NNSA programs.