National Nuclear Security Administration

Triad National Security, LLC

Performance Evaluation Report (PER)

NNSA Los Alamos Field Office (NA-LA)

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

November 25, 2020

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Department of Energy review required before public release.
Name: Larry Kwei/Org: Mission Assurance and Infrastructure /Los Alamos Field Office
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Summary

This Performance Evaluation Report (PER) provides the National Nuclear Security Administration (NNSA) assessment of Triad National Security (Triad or the Laboratory), performance of the contract requirements for the period from October 1, 2019 through September 30, 2020, as evaluated against the Goals defined in the Performance Evaluation and Measurement Plan. The NNSA took into consideration all input provided from NNSA Program and Functional Offices, both at Headquarters and in the field. In the third performance period, the COVID-19 pandemic necessitated Triad transitioning approximately 85% of its workforce to telework, who successfully conducted mission-critical work demonstrating strong resilient management in crisis.

Performance against the Goals summarized below resulted in an overall rating of Very Good or 88.0% for Triad. Specific observations for each Goal are provided in the following pages.

Goal 1: Mission Execution: Nuclear Weapons -- Successfully execute the cost, scope, and schedule of the 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.

Triad National Security, LLC Amount of At-Risk Fee Allocation: $8.9M

Under this goal, Triad earned a rating of Very Good with a percentage of 90%. Triad exceeded many of the Objectives and Key Outcomes, and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the performance period, the accomplishments greatly outweighed issues. Triad met most performance expectations generally within expected cost towards the completion of Defense Programs' high priority items in the Getting the Job Done list. Contractor's performance is consistent relative to FY19 performance.

Accomplishments

The Laboratory generally met objectives for executing mission-critical work and supporting stockpile activities. (b)(7)(E), (b)(7)(F)

Triad's Common Modeling Framework (CMF) components are now fully operational with experiments being added to CMF to test new HE models.

The Laboratory supported completion of the last production unit for the W76-2, and continued to provide excellent support for the B61-12 Life Extension Program (LEP), the W88 Alteration (ALT) 370, the W88 ALT 940 program, and numerous other ALTs, but

COVID-19 related impacts slowed the pace of work. The Laboratory met all expectations for support of the W80-4 LEP and the W87-1 Modification Program and made significant contributions to trade studies for the Next Navy Warhead (W93/Mk7). (b)(7)(E), (b)(7)(F)

While most experimental and simulation programs have experienced impacts due to the COVID-19 pandemic response, the Laboratory has continued to make progress on preparation and execution of experiments at local firing sites and at partner facilities including the National Ignition Facility and Nevada National Security Site. The Laboratory has progressed the Pu@pRad and Neutron Diagnosed Subcritical Experiments experimental capabilities, with design and testing of containment vessels and design of the dense plasma focus source and receiving scintillators with numerical simulations (NDSE).

The Laboratory provided support to the Savannah River Site (SRS) planning and design of the SRS Pu Processing Facility. The Laboratory made substantial progress in the training of SRS staff, completing training of the initial two cohorts, and initiating two-year residential assignments for the cohorts. The Laboratory has repurposed an excess facility into a dedicated training facility for this activity.

The Laboratory exceeded planned deliverables for activities associated with the Material Recycle and Recovery (MRR) program, including completing cleanout of Confinement Vessel Disposition (CVD) 9 and relocation of CVD 10 to the Chemistry and Metallurgy Research building (CMR). The Storage program met expectations in FY20 with major accomplishments including 5.5-gallon SAVY-4000 design, alternatives to improve long-term container performance, Container Safety Management Program governing document, and Container Rules-of-Use Plan for TA-55, and demonstration of robotic capability for radiation area mapping. COVID-19 affected the amount of work that could be accomplished in FY20 primarily due to restricted access to classified facilities.

Issues

(b)(7)(E), (b)(7)(F)

The Lab needs to demonstrate advancements in efforts on the ASD and ECSE projects in order for NNSA to have confidence these projects will be achieved.

During the performance period, the Laboratory did not meet the Pit development builds in FY20, completing (b)(7)(E), (b)(7)(F) during the fiscal year. Equipment failures and process upsets led to loss of subassemblies for several build opportunities. However, the Laboratory has made significant progress on understanding key production process parameters and has demonstrated improved process reliability.

Goal 2: Mission Execution: Global Nuclear Security -- Successfully execute the cost, scope, and schedule of the 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.

Triad National Security, LLC Amount of At-Risk Fee Allocation: $3.8M

Under this goal, Triad earned a rating of Excellent with a percentage of 95%. Triad exceeded almost all of the Objectives and Key Outcomes, and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the performance period, the accomplishments significantly outweigh issues. Triad met most performance expectations generally within expected cost. No significant issues in performance exist.

Accomplishments

Triad provided critical support to high profile missions to remove disused radioactive sources domestically and internationally. Triad provided excellent support for remediation efforts after the May 2019 release of cesium-137 in Seattle, including drafting an exemplary COVID safety plan to allow the remediation efforts in Seattle to restart after the shutdown due to COVID. Triad also did an excellent job implementing lessons learned from the Seattle incident into all source removal projects. Triad also supported Test and Evaluation activities to investigate the performance capability of commercial radiation detection equipment. Triad exceeded expectations in providing appropriate management, expertise, and instructors in support of building international capabilities relating to sustainability of detection measures and investigation support. Triad scientific expertise has provided world-class training in gamma spectroscopy, a baseline forensics capability. Triad has been a principal contributor to the advancement of maintenance tools critical to the operation of the detection equipment. Triad also provided excellent SME support in building international nuclear security capabilities, including raising awareness of emerging technologies such as Counter Unmanned Aerial Systems.

Los Alamos hosted an NNSA visit and celebration of the ARIES program's 1MT cumulative production in January. Los Alamos was successful in converting, processing, packaging and analyzing 8 blend-lots of Pu as oxide from surplus plutonium in FY 2020, with the majority of feed material coming from the vault (in lieu of surplus pits).

Triad exceeded expectations for performance across the Defense Nuclear Nonproliferation Research and Development (R&D) mission space, by supporting preparations and early on-orbit testing of newly launched GPS satellites, and payload integration and testing for GPS III satellites in fabrication. Additionally, the Laboratory leads the Persistent DyNAMICS venture to develop improved methods for remote detection of nuclear proliferation activities, by deploying sensors and computing resources to Oak Ridge to successfully demonstrate Initial Operating Capability in July. Triad provided excellent technical and programmatic leadership of a diverse nuclear forensics venture team developing improved ways to gain information about a nuclear device in a post-detonation event.

Triad continued to provide very good technical support to the U.S. High Performance Research Reactor project, for the development of domestic Mo-99 production capabilities in accordance with approved FY 2020 Mo-99 Work Packages, including testing of NorthStar's accelerator facility, and for the international conversion program efforts to convert the German FRM-II reactor by rolling and delivering Depleted Uranium foils

Triad provided excellent support to the International Nonproliferation Export Control Program (INECP) and successfully adapted and remotely delivered INECP's intangible technology transfer workshop to Malaysian and led export control outreach with Indonesia, Malaysia, and Turkey.

Triad effectively managed NNSA's Office of Nuclear Incident Response efforts and the Radiological Assistance Program according to national policy, and supported special requests for information and assistance. Prior to and throughout the COVID-19, Triad provided subject matter expertise in support of information protection through their ongoing development of information protection tools and participating in document reviews and disclosure/discovery assessment response rubric assessments. Triad adapted well to the pandemic; sustaining readiness and developing novel and creative alternatives for retaining proficiency and support for Nuclear Emergency Search Team (NEST) programs. Triad completed assigned tasks consistent with the Office of Nuclear Forensics task plans, and a notable achievement was maintaining the readiness of the full complement of NEST cadres at the Laboratory through aggressive quarantining. Additionally, during the pandemic the Laboratory rapidly stood-up an operational backup COOP home team at TA-33 and significantly upgraded capabilities in the NISC home team, which allowed successful remote training (b)(7)(E) including two national large-scale exercises and essential (b)(7)(E) training for NNSA's frontline partners.

Issues: None

Goal 3: DOE and Strategic Partnership Projects Mission Objectives -- 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.

Triad National Security, LLC Amount of At-Risk Fee Allocation: $2.7M

Under this goal, Triad earned a rating of Excellent with a percentage of 91%. Triad exceeded almost all of the Objectives and Key Outcomes, and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the performance period, the accomplishments significantly outweigh issues. Contractor's performance is consistent relative to FY19 performance and is meeting performance expectations within expected cost.

Accomplishments

The Laboratory successfully performed high impact work in support of DOE and Strategic Partnership Projects, taking extraordinary actions to execute COVID-19 related projects as well as other mission-essential projects. The Laboratory's Special Office for COVID-19 provided significant contributions to COVID-19 related projects. The Laboratory's Medical Isotopes Program exhibited noteworthy performance in their continued delivery of isotope products during this challenging period. The 241AmO2 Capability Project was successfully completed. Two Pu Pucks were successfully manufactured in support of the Department of Homeland Security.

New high-impact projects were awarded and executed in strategically significant areas, illustrating high performance and successful application of the Laboratory's extensive cross-cutting capabilities: Machine Learning (ML) based Well Design to Enhance Unconventional Energy Production was awarded and three additional ML projects were executed; and Triad will lead one of three major research collaborations for developing quantum technologies as part of the $115M Quantum Science Center (QSC).

Triad successfully initiated and executed a formal risk review process for DOE/FCI programs that provides the opportunity to self-critically and transparently identify and address programmatic risk and challenges, consistent with NNSA's Governance and Management Framework.

Issues

Triad experienced a glovebox breach which prevented them from making progress on the 6 FY 19 Fueled Clads (FC) and the 9 FY 20 FC as well as completion of Hotpress (HP-4) installation.

Goal 4: Mission Execution: Science, Technology, and Engineering (ST&E) --
Successfully advance national security missions and advance the frontiers of ST&E. Effectively manage Site Directed Research and Development (SDRD) and Technology Transfer, etc. in a safe and secure manner in accordance with DOE/NNSA priorities, Work Authorizations, and Execution/Implementation Plans.

Triad National Security, LLC Amount of At-Risk Fee Allocation: $20.0M

Under this goal, Triad earned a rating of Excellent with a percentage of 95%. Triad exceeded almost all of the Objectives and Key Outcomes, and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the performance period, the accomplishments significantly outweigh issues. Contractor's performance is consistent relative to FY19 performance and is meeting performance expectations within expected cost. No significant issues in performance exist.

Accomplishments
Triad exceeded expectations by enhancing technical workforce competencies, ensuring that research is transformative and relevant to national security missions. Laboratory scientists received a number of prestigious awards.

Triad successfully performed transformative, innovative, and leading-edge R&D. Triad used historical U.S. nuclear test program data (16 underground nuclear explosions) to discover parameters that better predict whether an underground nuclear explosion will lead to late-time radioactive gas seepage, and will aid in the verification of nuclear test ban treaties; set a new record for highest pressures ever achieved in laboratory equation-of-state measurements; successfully identified chemical signatures using Earth's magnetic field; and developed new in situ data extraction and visualization capability.

Triad leveraged innovative solutions to maintain a viable summer school program. Thirteen new Cooperative Research and Development Agreements or amendments were executed. Triad partnered with Eideticom to bring computational storage processor to the market, and through a partnership with H2 Frontier and Skyre, developed an affordable technology to prevent poisoning in hydrogen fuel cell zero-emission power plants.

Triad added an additional Laboratory Directed Research and Development investment type, which closely aligned with Laboratory priorities, including support for COVID-19 research and reduced the timeframe for proposal acceptance and funding award by 90%.

Issues: None

Goal 5: Mission Enablement-- Effectively and efficiently manage the safe and secure operations of the Los Alamos National Laboratory in accordance with cost, scope and schedule while maintaining an NNSA enterprise-wide focus; demonstrating accountability for mission performance and management controls; successfully executing cyber, technical, informational, 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, etc., with a focus on mission enablement.
Triad National Security, LLC Amount of At-Risk Fee Allocation: $7.7M

Under this goal, Triad earned a rating of Very Good and a percentage of 80%. Triad exceeded many of the Objectives and Key Outcomes, and is generally meeting the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. Throughout the performance period, the accomplishments greatly outweigh issues, and, although there are a few areas of concern, Triad is implementing corrective measures to address the issues. Contractor's performance is trending positively relative to FY19 performance and is meeting performance expectations within expected cost.

Accomplishments
Triad successfully implemented a COVID-19 task force in order to develop LANL policy; employee communications; modelling, analytics, and contact tracing; and, site accountability status. The implementation of the task force ensured effective management of the unprecedented pandemic. Triad did an exceptional job developing and implementing protocols to ensure primary mission essential functions were accomplished while maximizing telework during the pandemic. Triad developed new procedures and training and conducted dry runs and walkthroughs to ensure workers could complete essential work while maintaining their safety. Implementation of the Pandemic Advisory Team (PAT) enabled coordination with local agencies, and continuous monitoring of the pandemic from the onset. Triad also seamlessly transitioned to limited operations and established a second shift to accommodate additional construction projects within the Plutonium Facility.

Triad worked to de-inventory almost 50% of the Transuranic (TRU) waste containers from the site, lessening exposure risk as well as necessary drum movement, providing an increase in overall safety. TRU waste management saw an increase in shipping rates and worked in a high performance manner to enhance efficiency. Triad also implemented a new single organizational structure to manage waste at the laboratory, which improved communications significantly. In addition, Triad successfully coordinated and completed removal and shipments of Type A quantity nuclear materials from LBRI in FY20.

Triad has made improvements in safety culture; including increased operational rigor in many LANL facilities. Additional management presence in the field, higher quality fact

findings and fidelity in plan of the day and other planning tools, as well as a desire to investigate and learn from lower level incidents all contribute to safety culture improvements. Significant progress was made by Operations and the supporting Nuclear Criticality Safety Division (NCSD) towards rebuilding a healthy criticality safety culture, evident in the NCSD and Operations Responsible Supervisor/Operator relationship. There was a noted reduction in criticality safety incident reporting. Triad response and clean up to an unanticipated asbestos containing material disturbance was completed expeditiously, professionally, and safely.

Triad continues to improve conduct of engineering systems and is providing support to the broader NNSA Complex. Triad led the development of a joint electrical safety and design effort for the Scorpius project and U1a operations, which will be leveraged to drive development of a national advisory committee and R&D electrical safety standard. Triad was instrumental in rewriting the electrical safety handbook for the Complex. Triad made significant progress in conducting analysis leading to systems upgrades at TWF.

Triad made improvements in safety basis with regard to quality and timeliness, but some exceptions were noted. The program has remained effective in supporting mission objectives and improvements have been made in working issues to closure.

Triad performed significant work to reestablish the framework of the Wildland Fire Program, including development of a complaint integrated site-wide wildland fire management plan. Triad gathered intelligence, responded to attacks on utilities and computing systems, mitigated an active threat situation, and implemented COOP Mission Essential Function 9 during the GridEx exercise.

Of particular note, the Laboratory provided exemplary emergency response and recovery support for the legacy waste on DP Road by securing the site, collaborating on infrastructure installation, and providing waste management and health physics ahead of schedule and under budget. Triad partnered to co-create the Emergency Management Readiness Assurance Program tool, which provides NNSA insight into the health of emergency management programs across the Enterprise.

The Laboratory provided strong leadership and support for environmental compliance, with minor performance issues for noncompliance. Triad maintained site-wide compliance and progressed toward renewal activities for RCRA and NPDES programs. Triad implemented an effective self-assessment program to evaluate environmental and waste compliance performance and provides immediate and effective feedback, but it lacks maturity to communicate issues beyond the deployed professionals and lacks effective utilization of an issues management process to properly evaluate risk and trends within and across FODs.

Triad performed well in support and management of the Manhattan Project National

Historical Park mission. Triad expertly prepared two Supplement Analyses for pit production mission. Triad significantly improved the quality of its real estate program over this year by improving its Preliminary Real Estate Plan packages, initiating a Real Property Asset Management assessment, and commencing a large-scale solicitation for office space. Triad implemented several sustainability initiatives, such as, sustainability training for managers, SMART Lab concept, and metering. Triad was awarded the Prime GreenBuy Award from DOE, the only NNSA site awarded.

Triad legal continues active preventive law practices by engaging at the staff and management level. FOIA matters are addressed expeditiously.

Triad performed admirably in the construction of the Chemistry and Metallurgy Research Replacement Facility Capital Asset Project. Overall Triad met expectations on Line Item project delivery and EVMS performance. Six projects met expectations, one was below, and three above: specifically the PF-4 Equipment Installation (PEI-1), RLUOB Equipment Installation (REI-2), and Exascale Class Computer Cooling Equipment (E3CE) projects. The Triad portion of PEI-1 completed ahead of schedule and under budget; Key Performance Parameters were met and the CD-4 closure report was completed in August. REI-2 project is ahead of schedule and under budget but cost and schedule performance continues to erode. The E3CE project achieved CD-4 in mid-May, ahead of schedule and $8M under budget. Additionally, Triad exceeded expectations for the Watershed Enhancement Supplemental Environmental Project, receiving NMED approval for the certificate of completion and also for executing the Jemez Erosion Control Project, mitigating roadway undercuts that would have severely affected Laboratory mission. Triad completed the DARHT weather enclosure structure and is currently reassembling programmatic equipment within the new building. Triad has excelled at G2 performance reporting.

Triad initiated several process improvements in its MC&A program through efforts of improved collaboration between the NMC&A and Operations teams. As a result, Triad is making strides in the right direction and continues to provide consistent updates to the Los Alamos Field Office and DNS. Triad continues to effectively manage the NNSA's first counter unmanned aircraft system (CUAS) program. Triad has fully addressed the intent of scenario development requirements.

Triad met or exceeded 19 of 22 Cybersecurity and 35 of 45 Information Technology Implementation Factors and continues to implement a multi-year effort to develop a classified and unclassified wireless solution supporting Pit Production efforts.

Triad delivered efficient, effective business operations, financial management, budget formulation, execution and internal controls and demonstrated positive yearlong financial performance, including providing new deliverables on short notice. Triad successfully developed a new contract vehicle to expedite contract award and improve competition and pricing. Triad continues to initiate projects to improve performance.

Triad was exceptional in supporting the Nuclear Security Enterprise (NSE) Workforce's Strategy Group and performed many novel and impactful initiatives. Triad successfully completed a comprehensive Compensation Program review and due to prudent planning, did not seek additional authorization of funds as they had set aside money from the 2020 promotion/adjustment fund to address the necessary salary alignments.

Triad effectively coordinated and completed removal and shipments of Type A quantity nuclear materials from LBRI in FY20.

Issues

Triad did not always identify legacy issues before they manifest in unnecessary incidents. Recent issues with security practices and maintenance are but a few examples that indicate corrective action completion and effectiveness, as well as operational improvements in non-nuclear activities, are not as effective as they could be. Additionally, Triad continues to be challenged with planning and integrating of activities such as the Pu pit program and the waste lifecycle with some resistance to help in these areas. The Laboratory has been systematically confronting the cultural issues and is making gains, but the needed change agents are not fully supported and the totality of the engaged and capable team needs reinforcements.

Engineering quality management at facilities continued to be a challenge for Triad. Fire Protection system impairment numbers were still trending high but showing a downward trend. (b)(7)(E), (b)(7)(F) Triad did not complete its Fire Hazards Analyses and Fire Protection Assessments at the periodicity required. Triad assigned facility-knowledgeable personnel to thoroughly review and correct the DARHT SAD and ASE just in time to prevent operational delays.

Triad completed the negotiation of the new Collective Bargaining Agreement, which sets the stage for 5 years of stability within the protective force, however, they did not ensure the cost analysis was prepared in a timely manner by their subcontractor causing additional delay and forced the Department to put contingent assets on hold for an extended period. Triad discovered past issues of improper access controls and inappropriate activities within secure areas, but were determined to be isolated events.

Triad also experienced challenges with improper Access controls, including a near miss at TA-72. Triad's leadership mitigated these issues by taking immediate action to identify the cause and implement corrective actions.

Triad continues to experience challenges questioning the transparency and sustainability of the Cyber Security and IT Programs. Specifically, Triad, was reluctant to address external deficiencies and weaknesses within the Issues Management Process in a timely

manner; (b)(7)(E), (b)(7)(F) Triad "Did Not Meet" 13 of 67 mandated Implementation Factors.

Triad inconsistently delivered quality and signature ready documentation or sufficient business cases with inadequate due diligence of affiliate agreements, named subcontractors, quality assurance, consent reviews, integrated prioritized project schedules for work activities, FISMA and Laboratory performance metrics, (b)(7)(E), (b)(7)(F)

Triad was challenged in submitting timely subcontract packages for NNSA to provide comments prior to HCA approval and in submitting technical reviews and Requests for Information on the ESPC Steam Plant project. The Microtron accelerator was approved with an important 6-month exemption, however Triad did not submit a timely request for a permanent or extension exemption until a week prior to expiration, resulting in the need for an accelerated review.

A number of minor construction projects have encountered acquisition delays and execution challenges, resulting in cost and schedule variances. Examples include the TA-16-410/411 Assembly Facility Revitalization, which is significantly behind schedule and has yet to finalize construction acquisition. The TA-22-093-C123 & C125 HVAC Installation, which is an FY18 project, is over budget and has not started construction. Triad Earned Value tracking failed to quantitatively capture COVID-19 impacts. Analysis, trending, and validation of impacts are underway and are expected to show inefficiency impacts however the lack of time-phased documentation will make verification and validation difficult.

Triad did not meet four of the six small business goals and struggled with some small business subcontracting relationships. However, Triad was successful in purchasing needed Covid-19 supplies from local small businesses, allowing them to remain open during the pandemic and received two small business awards. Inadequate management of direct change orders and requests for equitable adjustments have delayed payment to several small businesses.

Triad maintenance program had various unplanned releases as a result of maintenance work activities and less than adequate post-installation testing. The program did not demonstrate critical analysis and clear interpretation of data and the corrective maintenance backlog lacks definition to understand how corrective maintenance is prioritized, planned, and executed.

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 Los Alamos National Laboratory 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 Los Alamos National Laboratory and the Enterprise.

Triad National Security, LLC Amount of At-Risk Fee Allocation: $5.1M

Under this goal, Triad earned a rating of Excellent with a percentage of 91%. Triad exceeded almost all of the Objectives and Key Outcomes, and generally met the overall cost, schedule, and technical performance requirements of the contract under this Goal in the aggregate. During the performance period, the accomplishments significantly outweigh issues. Contractor's performance is consistent relative to FY19 performance and is meeting performance expectations within expected cost.

Accomplishments

Triad demonstrated excellent leadership during the COVID-19 pandemic. Triad quickly created accounting and reporting processes for teleworking, mission essential travel, created an online onboarding process, continued to hire critical positions, shifted training, promoted social distancing and limited employee contact, increased productivity, procured PPE and cleaning supplies to ensure mission essential functions still operate, delivered technology for work from home, implemented deconning and cleaning protocols, initiated COVID-19 contact tracing, created a testing facility and analysis facility, and has made scientific discoveries for COVID-19. In addition, Triad has effectively managed ever-changing NNSA guidance and implemented contract modifications related to the COVID-19 with no issues or delays.

Triad launched a new mission, vision, values, behaviors, and culture statement, one that emphasizes, "how we do our work is as important as what we do" to support long-term systematic changes designed to change the Laboratory's culture. Examples of Triad investing in its workforce include establishing a new hands-on, in-house training program for production staff by taking advantage of the former Trident facility, introducing a much-needed incentive compensation program to align leadership goals with NNSA priorities, and executing an increased indirect budget to address aging infrastructure.

Triad employs a monthly repeatable and reliable assurance practice that evaluates risks and issues related to the Weapons and Global Security Programs. In addition to focusing on NNSA DP and SPP milestones, senior leadership engages in self-critical assessment and transparent discussion on related risks and issues to mission success. An important part of the Laboratory's governance process is performance of the Capability Reviews of the Laboratory's Science Pillars. The Global pandemic posed challenges with review execution,

but Triad was successful in hosting all six planned Capability Reviews, which provided important feedback on the state of the Science Capability to senior leadership.

The Laboratory demonstrated considerable leadership by providing technical managers to lead DP Science execution collaborations, such as the Stewardship Capabilities Delivery Schedule Executive and Office of Experimental Sciences Executive Boards. Triad partnered with NNSA to co-create the Emergency Management Readiness Assurance Program, which provides insight into the health of emergency management programs across the Complex.

Triad investment in critical skills development is beginning to demonstrate operational improvements and integrated planning across priority mission activities. The Radiological Control Technician (RCT) attrition rate improved and resulted in minimal mission impact due to RCT shortages. Waste Management re-organization executed in this period intends to align roles and focus resources more effectively. The support to critical NNSA initiatives on DP Road and LBRI material removal reduced risk to the public and reputational risk to the Lab and demonstrated true partnership with NNSA.

Safety Culture initiatives demonstrate improvement in knowledge of the workforce, signs of operational improvement, and risk reduction on site. Leadership response to radiological issues and LO/TO incidents are positive examples of engagement on crosscutting safety concerns on site. However, cultural improvements remain incomplete and are more advanced in nuclear operations than non-nuclear facilities.

Increased reporting of O2 sensor alarms and improvement trends in alarm response demonstrates effective corrective action implementation in this area and further indicates management's commitment to safety.

Triad successfully completed 217 contract deliverables and executed $3.2 billion in funding, a 9% increase from FY19.

Issues

Triad's methods for validating effectiveness of assurance system processes are not effective; however, Triad is making great improvement sin addressing effectiveness deficiencies with assurance system processes, but it will take time before Triad can validate the effectiveness of these actions. Triad improved several key assurance documents related to quality, issues management, and overall contractor assurance, and built tools to improve issues management. Triad significantly improved its executive level performance information to help senior management identify and address performance deficiencies more timely, and improved on its enterprise risk management process and overall management review processes to identify and communicate the most significant matters to senior leadership.

The Advanced Sources and Detectors project is $4.5M over budget with only ten days of

schedule contingency remaining to meet the CD-2/3. The project implemented an action plan to mitigate effects of delays and to recover schedule. All four partner organizations support the new recovery plans under development. Of, note, when a partner Laboratory was unable to provide staff to support design activities, the Laboratory reassigned staff to support in an effort to regain schedule.

The Laboratory demonstrated great leadership on Covid-19, DP Road, LBRI, and similar challenges for NNSA, however, there are still times that TRIAD did not bring all resources to bear to develop well defined technical solutions that stand-up to scrutiny, acting as a strong accountable leader defining and defending critical activity and project needs.