



FY2019 Performance Evaluation Summary

Contractor: Lawrence Livermore National Security, LLC (LLNS)

Contract: DE-AC52-07NA27344

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

Basis of Evaluation: Fiscal Year (FY) 2019 Performance Evaluation and Measurement Plan (PEMP)

The FY 2019 PEMP for this contract is available at:

https://www.energy.gov/sites/prod/files/2020/01/f70/FY19%20LLNS%20%20PEMP%2092818%20Signed_Redacted.pdf

The Contract is available at: <https://www.energy.gov/nnsa/lawrence-livermore-national-laboratory-contract>

Award Fee Scorecard

The LLNS contract has an award term component under which LLNS can earn an additional year on its contract if performance meets or exceeds certain criteria. To be eligible to earn available award term, LLNS must earn an adjectival score of Very Good or better in four of six Goals and receive no adjectival score of Satisfactory or lower in any Goal, and further, meet any additional requirements as specified in LLNS contract. The Fee Determining Official concluded the LLNS performance for the FY 2019 performance year satisfied the criteria and earned LLNS an additional year of Award Term, as follows:

Goal	Rating		At Risk Available	Final	Award Term
	Adjectival	Percent			
Goal-1: Manage the Nuclear Weapons Mission	Excellent	91%	\$10,578,105	\$9,626,076	Met
Goal-2: Reduce Nuclear Security Threats	Excellent	95%	\$1,511,158	\$1,435,600	Met
Goal-3: DOE & Strategic Partnership Projects Mission Objectives	Excellent	95%	\$ -0-	\$ -0-	Met
Goal-4: Science, Technology & Engineering (ST&E)	Excellent	95%	\$3,022,316	\$2,871,200	Met
Goal-5: Operations & Infrastructure	Very Good	85%	\$9,066,948	\$7,706,906	Met
Goal-6: Leadership	Very Good	90%	\$6,044,632	\$5,440,169	Met
Total Award Fee	Very Good	90%	\$30,223,159	\$27,079,951	Met

In addition, the fixed fee and total fee summaries are provided below:

	Available	Final
Fixed Fee	\$12,952,783	\$12,952,783
SPP (Fixed Fee)	\$7,548,000	\$7,548,000
Total Fixed Fee	\$20,500,783	\$20,500,783
Total Fee (Award Fee and Fixed Fee)	\$50,723,942	\$47,580,734

LLNS earned Excellent ratings on Goals 1-4, exceeding expectations on nearly all Objectives and Key Outcomes. It continued to successfully deliver on our nation's challenging stockpile requirements and lead the Weapons Laboratories in strengthening the underpinning and future of stockpile stewardship. LLNS also continued to successfully deliver at a very high level across the balance of the NNSA mission portfolio including Non-Proliferation, Emergency Management, Incident Response, and Nuclear Counterterrorism while effectively supporting DOE and Strategic Partnership Project (SPP) programs. The National Security missions were successfully executed by leveraging and advancing the frontiers of Science, Technology, and Engineering (ST&E). LLNS earned Very Good ratings on Goals 5 and 6 by exceeding expectations on many Objectives and Key Outcomes with relatively few issues.

Overall, LLNS earned a Very Good rating for FY2019, exceeding many of the objectives and key outcomes under the PEMP goals, meeting overall cost, schedule, and technical performance requirements with accomplishments that greatly outweigh issues.

Accomplishments:

Goal 1

- Excellent Hydro and Enhanced Capability for Sub-critical Experiments (ECSE) program performance, promising Advanced Radiography and Bi-polar pulsed power results, provided interagency ECSE team with information to inform technology down-select.
- Ediza subcritical experiment successfully conducted in February after initial delay due to regulatory/safety issues related to containment vessel.
- Successfully demonstrated use of Advanced Manufacturing techniques to accelerate prototyping and production for Advanced Certification & Qualification.
- Excellent design and prototype support on Ground-Based Strategic Deterrent (GBSD) integration activities including Air Force and Joint Environmental Test Unit Product Realization Teams.
- Successfully executed the required W80-4 Phase Gate and Design Reviews.

Goal 2

- Led efforts to secure nuclear materials and radiological facilities in Europe, Africa, South and Central Asia and Middle East regional portfolios.
- Provided scientific leadership in nuclear test monitoring to include Source Physics Experiment and Low Yield Nuclear Monitoring venture.
- Made valuable contributions to Comprehensive Nuclear-Test-Ban Treaty Organization's International Monitoring System and International Data Centre.
- Forensic Science Center provided analytical detection procedures setting the world-wide detection standard for the Organization for the Prohibition of Chemical Weapons.
- Set the Standard in detection materials research and development for improved gamma and neutron detection, leading to new detection systems with increased sensitivity and effectiveness.

Goal 3

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- Developed table-top laser based carbon 14 spectrometer interfaced to liquid chromatography that is 200 to 300 times more sensitive than current commercial based tools.
- Developed Skyfall, testbed that connected real-world equipment with high performance computers to develop defenses against cyberattacks.
- Provided leadership on DOE Exascale Computing Initiative and advanced the science and application of Artificial Intelligence.

Goal 4

- National Ignition Facility high density experiments generated results in support of W80-4 LEP.
- In collaboration with University of California Santa Cruz, researchers delivered first-of-its-kind.
- Developed a breakthrough high-speed additive manufacturing method, which significantly advanced the science.

Goal 5

- Completed construction activities for Expand Electrical Distribution System Line Item ahead of baseline schedule, currently \$1.8M under budget; project team reacted quickly to discovery of second area of unexpected contamination minimizing cost and schedule impact.
- Achieved high level of safety performance in industrial and construction safety completing 290,000 man-hours of work with no recordable incidents.
- Established state-of-the-art computer maintenance management system (CMMS) that integrated LLNL maintenance management programs and fully aligned and integrated with NNSA's crosscutting initiatives.

Goal 6

- Demonstrated improvement to Site Governance through Integrated Health of the Program (IHOP) process collaboratively and transparently with LFO utilizing contractor assurance data.
- Provided enterprise leadership in developing strategy and tactics for High Performance Computing and Artificial Intelligence initiatives.
- Received Glassdoor Employees' Choice Award, recognizing LLNL as one of the Best Places to Work in 2019, two Optima Awards from Workforce Magazine.
- Provided instrumental support to Nuclear Security Enterprise Recruitment Strategy Group in rapidly developing Nuclear Security Enterprise Workforce Recruitment Strategy Plan.
- Developed five strategic initiatives in Nuclear Threat Reduction and led five-lab initiative on Advanced Data Analysis for Proliferation Detection (ADAPD).

Issues:Goal 1

- Work related to thermodynamic impacts of aging plutonium not completed on time due to scheduling issues ineffectively communicated to HQ.
- Three science milestones (6513 Readiness of Ramp Compression Platform at NIF for High Z Experiments, 6526 JASPER Operations, 6527 Sound speed data from JASPER) not completed due to Superblock issues.
- Improved communication with HQ needed on Weapon Technology Development program to ensure priorities are aligned.

Goal 5

- Progress on better aligning compensation practices with enterprise has been slow despite partnering efforts by LLNS staff.
- Areas of weakness in conduct of operations, work planning and control, and lock out/tag out (LOTO) require management attention- B332 and B331 glovebox events resulting in loss of availability of programmatic equipment, B151 contamination events, numerous sitewide LOTO events.

Goal 6

- Leadership must directly engage in the management of Defense Programs mission work and participate in enterprise decision making rather than allowing this to occur at lower management levels.
- Continued leadership engagement is needed to reinforce improved collaboration on compensation and benefits.