



**Department of Energy**

Oak Ridge Office of Environmental Management  
P.O. Box 2001  
Oak Ridge, Tennessee 37831

Ms. Linda J. Beach  
TWPC Program Manager  
North Wind Solutions, LLC  
100 WIPP Road  
Lenoir City, Tennessee 37771

Dear Ms. Beach:

**CONTRACT NUMBER DE-EM0003760, AWARD FEE DETERMINATION FOR PERIOD 2018**

The U.S. Department of Energy (DOE) Oak Ridge Office of Environmental Management Award Fee Board has completed its evaluation of the North Wind Solutions, LLC (NWSol) performance for Award Fee Period 2018 for Contract Line Item Number (CLIN) 3 Year 3 from October 27, 2017 through October 26, 2018. In its deliberations, the Board considered the Award Fee Evaluation Report and the NWSol self-assessment.

As the Fee Determination Official, I have determined that NWSol has earned the following award fee for this period: \$224,914 for the Technical Performance for Waste Processing Operations and \$157,835 for the Cost and Schedule Performance. The total award fee is \$382,749 against an available award fee of \$394,587 for Period 2018. Ratings are as follows:

Objective and Elements	Performance Weight	Total Available Award Fee	Performance Score	Award Fee Earned	Adjectival Rating
<b>Cost and Schedule Performance</b>	40%	\$157,835	100%	\$157,835	High Confidence
Cost Control					
Baseline Management					
<b>Technical Performance for Waste Processing Operation</b>	60%	\$236,752	95%	\$224,914	Excellent
<b>Total Fee Available Period 2016</b>		<b>\$394,587</b>		<b>\$382,749</b>	

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During the 12 month performance rating period, NWSol has continued to execute the scope under the Transuranic (TRU) Waste Processing Center (TWPC) contract very well. NWSol began performance of waste operations following transition from the predecessor contractor on December 11, 2015, and successfully completed Contract Year 3 on October 26, 2018.

The contact-handled (CH) TRU waste processing goal for Contract Year 3 was 27.31 cubic meters (m<sup>3</sup>), which was drawn from the Contract Performance Baseline. NWSol employees and its subcontractors processed 28.89 m<sup>3</sup> of CH TRU waste during the period, exceeding the CH TRU waste processing goal by 5.8 percent for this period of performance. NWSol has also exceeded the cumulative goal for CH TRU waste processing to date by 1.5 percent, having processed 92.1 m<sup>3</sup> versus a goal of 90.7 m<sup>3</sup>

Additionally, NWSol employees and its subcontractors completed processing of 57.16 m<sup>3</sup> of remote-handled (RH) TRU waste during the period, missing the goal by 2.8 percent for this period of performance. NWSol has also missed the cumulative goal for RH TRU waste processing to date by 0.98 percent, having processed 170.12 m<sup>3</sup> versus a goal of 171.8 m<sup>3</sup>. Even though the contract performance period goal was not met, the Contractor successfully met the regulatory milestone for RH waste processing of 97 m<sup>3</sup> slightly ahead of the milestone due date. Various factors affected TWPC not being able to meet the contract goal, including delays in Acceptable Knowledge documentation development and approval by Central Characterization Project/Carlsbad Field Office (CBFO) to support Hot Cell processing, additional sampling requirements driven by the new Waste Isolation Pilot Plant (WIPP) requirements for specific waste streams, and failure of the PaR manipulator arm in October 2018. Overall, there was a concerted effort by NWSol during the performance period to process the contract quantity, and the Contractor was in a position to complete the remaining waste when the PaR Arm failure occurred.

NWSol successfully accomplished 44 shipments to WIPP during Contract Year 3. In addition, the waste re-certification audit conducted by CBFO was completed without any major issues. These actions demonstrated TWPC compliance with the WIPP Waste Acceptance Criteria and the completion of the requirements needed for authorization to resume waste shipments to WIPP for final disposition. WIPP did not authorize any shipments of RH TRU waste.

NWSol has been proactive in dispositioning all low-level, hazardous, and mixed waste and managing TRU waste storage space required to support shipments to WIPP. During this period, NWSol was able to ship 393 drums of low-level waste originating the characterization of soils from Nuclear Fuel Services, Inc., 10 boxes and 288 drums of macro-encapsulated waste, four cargo containers of low-level waste, and approximately 19 emptied casks to the Nevada National Security Site for disposal.

Overall, NWSol has implemented an effective and well-managed Safety and Health Program during this evaluation period. NWSol safely received, treated, and packaged both CH TRU and RH TRU wastes from a variety of waste streams and packaging configurations from the Oak Ridge National Laboratory, all of which required compliant and interim storage onsite. In addition, NWSol coordinated offsite storage needs with another DOE prime contractor on the Oak Ridge Reservation. NWSol staff has compliantly performed the required acceptance checks and verifications for all incoming and outgoing wastes to ensure all regulatory and safety basis requirements have been met (i.e., waste packaging and characterization, transportation, etc.).

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- **Successfully implemented several safety basis revisions including Document Safety Analysis/Technical Safety Requirement Revision 37 required for the Potential Inadequate Safety Analysis associated with the operation of the Macro-Encapsulation Box Remote Drum Opener and Document Safety Analysis/Technical Safety Requirements Revision 38 required for the implementation of controls allowing the Contractor: (1) to receive and process the Knolls Atomic Power Laboratory Cask and K-770 Casks; (2) process Mixed Oxide Waste Containers; (3) eliminate Specific Administrative Controls associated with the use of the Diesel Fuel Delivery Tanker to refuel the site diesel generator; (4) handle and ship 6M/2R specification packages subject to a deflagration-to-detonation (DDT) hazard back to URS | CH2M Oak Ridge, LLC (UCOR) legacy storage; and (5) identify new inventory controls for the West Staging Area Shipping/Receiving Area. The continuation of the Plutonium surrogate material testing in support of the planned Oxidation Campaign.**
- **Successfully conducted several DOE and Contractor readiness and management assessments for the Macro-Encapsulation Box Remote Drum Opener Operations and Return and Transfer of potential DDT Materials to UCOR.**
- **NWSol personnel discovered a vulnerability within the Waste Inventory Control System (WICS) software, which could result in potentially exceeding the 200 Fissile Gram Equivalent limits in the Hot Cell room 211 for covered or uncovered inventory. A work pause was initiated for Hot Cell operations and an extent of condition review was conducted, which resulted in a Management Concern submitted in the Occurrence Reporting and Processing System. NWSol confirmed they were still within the facility safety basis, made meta-data changes to the WICS software, removed work pause, and resumed Hot Cell operations. NWSol WICS experts showed great knowledge of the software, kept a questioning attitude, and continued to probe the situation. This questioning attitude and willingness to raise issues is a critical attribute for site personnel as they address changing conditions associated with the remaining difficult and unique waste streams.**
- **During inspections, NWSol observed rust on several drum lids; some with indications that water may have been above the drum vent. NWSol proactively began evaluating the condition of the drums, and then implemented actions to place the affected drums into overpacks for storage while evaluating the path forward.**
- **TWPC TRUPACT-II shipments received at WIPP have continued to experience high Radium-226 contamination that exceeds the WIPP waste transportation limits. The contamination is caused by naturally occurring radiolysis of the waste within the containers, which causes radon to pass through the vents. NWSol is utilizing additional decontamination techniques to assure the containers are clean prior to shipment to WIPP. To further address this issue, NWSol has designed and is testing a modified carbon cap for drums in existing storage areas to reduce potential radon emissions from the drums.**

The NWSol Days Away, Restricted or Transferred and Total Recordable Case rates were below the goals established by DOE for this period. This represents a significant improvement from Contract Year 2, resulting in a case rate of zero for both Days Away, Restricted or Transferred and Total Recordable

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Case for Contract Year 3. DOE acknowledges the effort NWSol has put forth in improving these key safety metrics over the course of the period. NWSol successfully completed multiple shipping activities for RH TRU, CH TRU, and low-level/mixed low-level wastes to onsite and offsite storage and disposal facilities without incident during the performance period. These efforts included working in conjunction with the CBFO Mobile Load Team for TRUPACT-II and Half-Pact shipments to WIPP, accomplishing shipment of Nuclear Fuel Services, Inc., soil drums and Tank W1-A soil waste boxes to and from UCOR storage facilities, and conducting shipments of low-level/mixed low-level waste shipments to offsite treatment and disposal facilities. All shipments were completed in full compliance with regulatory and DOE transportation requirements.

NWSol has safely and efficiently processed wastes in the Box Breakdown Area, Hot Cell, and Glove Box areas. The Contractor demonstrated their ability to maintain efficient processing rates by exceeding the CH TRU waste processing goal for this period of performance. NWSol successfully maintained the facility's availability and operational readiness to greater than 80 percent for the performance period. NWSol in conjunction with the site's characterization contractor successfully made waste containers available for characterization, sampling, and processing for over 6,700 CH waste drums and over 250 RH waste drums for the project to date. For the performance period, approximately 28 m<sup>3</sup> of CH waste (exceeding the goal of 27 m<sup>3</sup>) and approximately 58 m<sup>3</sup> of RH waste (exceeding the goal of 57 m<sup>3</sup>) have been processed without a major physical or personnel contamination event or loss of work production.

NWSol has developed a disciplined approach to preparing for the processing of reactive plutonium metal. The project completed a second oxidation test with zirconium surrogate in the new Glove Box to establish a basis to process a portion of the SWSA 5 waste by the same method. The second test confirmed the results of the initial testing which was completed previously. Additional testing is planned prior to readiness activities later in Fiscal Year (FY) 2019. The Preliminary Documented Safety Analysis was initially submitted during this period of performance but later rescinded to incorporate additional details. NWSol plans to resubmit a Preliminary Documented Safety Analysis to DOE in FY 2019.

This is the final evaluation of the Contractor's cost and schedule performance for CLIN 3 activities. NWSol final actual CLIN 3 costs will be \$7 million (M) less than the contract total estimated cost. NWSol actual cost of work performed through October 26, 2018, was \$30.3M. Additional costs of \$1.8M are projected for equipment and parts ordered during this evaluation period that will be delivered during FY 2019. The total projected actual cost for CLIN 3 activities will be \$32.1M which is \$7M less than the contract total estimated cost of \$39.1M.

All baseline change proposals required for approved CLIN 3 contract changes were prepared and issued to DOE within 30 days of the modification ensuring that the performance measurement baseline maintained alignment with the contract price.

This Award Fee Determination provides reasonable assurance that NWSol fairly executed the Performance Evaluation Management Plan for Period 2018 for CLIN 3 Year 3.

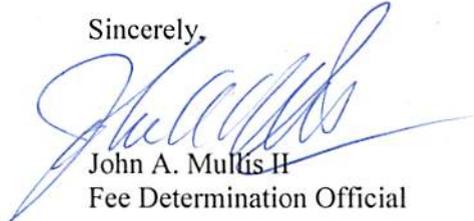
Ms. Linda J. Beach

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Please express our sincere thanks to your entire team for their continuing support of the DOE mission. If you have questions or if we can be of any further assistance, please contact David Adler at 576-4094 or me at 576-0742.

Sincerely,



John A. Mullis II  
Fee Determination Official

cc:

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