



**Department of Energy**  
National Nuclear Security Administration  
Nevada Site Office  
P.O. Box 98518  
Las Vegas, NV 89193-8518



December 4, 2012

Tim Murphy, Chief  
Bureau of Federal Facilities  
Division of Environmental Protection  
2030 E. Flamingo, Suite 230  
Las Vegas, NV 89119

**DISPOSAL OF CONSOLIDATED EDISON URANIUM SOLIDIFICATION PROJECT  
WASTE AT THE NEVADA NATIONAL SECURITY SITE (NNSS)**

In meetings held on November 28 and 29, 2012, between the U.S. Department of Energy (DOE) National Nuclear Security Administration Nevada Site Office (NNSA/NSO) and the State of Nevada Division of Environmental Protection (NDEP), resolution was reached regarding questions and issues related to the proposed disposal of the Uranium-233 Consolidated Edison Uranium Solidification Project (CEUSP) waste stream from the Oak Ridge National Laboratory at the NNSS. This letter documents these discussions and identifies those commitments made by the NNSA/NSO regarding the disposal of the CEUSP waste at the NNSS Area 5 Radioactive Waste Management Complex (RWMC).

During these discussions, the NDEP agreed that DOE has demonstrated that the CEUSP waste meets the requirements for low level waste disposal as regulated under the Atomic Energy Act, the DOE radioactive waste management order (DOE Order 435.1), and the NNSS Waste Acceptance Criteria (WAC). However, because the CEUSP waste includes long-lived alpha decaying isotopes, NDEP questioned how shallow land disposal would be protective beyond the 1,000-year compliance period mandated under DOE Order 435.1 requirements for performance assessments. In response to this question and to provide an additional element of conservatism consistent with the DOE Order 435.1 defense-in-depth concept, the NNSA/NSO agreed to supplement the current CEUSP special analyses (SA). The supplemental SA will model the disposal facility performance over time to contain the long-lived isotopes in this waste stream. The modified SA will provide increased confidence in the long-term safety of CEUSP waste disposal through: assessment of the DOE Order 435.1 performance objectives for a longer period than required -- 10,000 years; qualitative assessment of the stability of shallow trench disposal at the Area 5 RWMS including closure cover integrity and associated impacts due to seismic events, volcanism, and assessment of the peak impacts from CEUSP waste disposal. As this additional analysis is not required for NNSA/NSO to demonstrate compliance with the NNSS WAC, it will therefore not be included in the existing waste profile documentation currently being reviewed by the NNSS Waste Acceptance Review Panel. The supplemental SA will be provided to NDEP by January 25, 2013.

Furthermore, through consultation with the NDEP it was agreed that the CEUSP waste disposal depth will be increased an additional 2 feet to provide additional protection. This additional depth will be reflected in aforementioned supplemental SA. It was recognized by both DOE and NDEP that the increased disposal depth is not required to meet waste disposal requirements at the Area 5 RWMC for the CEUSP waste, and it will not serve as a precedent or requirement for future waste streams. Collectively, both the supplemental SA and the increased disposal depth is intended to provide additional regulator and stakeholder confidence that the disposal configuration of the CEUSP will be protective of the environment and worker and public safety and health as demonstrated by existing DOE requirements and processes.

If you have any questions or need additional information, please contact me at (702) 295-7063.



Scott A. Wade  
Assistant Manager  
for Environmental Management

EM:9241.SW

cc via e-mail:

C. M. Gelles, DOE/HQ (EM-43) FORS  
F. N. Marcinowski, III, DOE/HQ (EM-40)  
FORS  
D. W. Tonkay, DOE/HQ (EM-31)  
CLVRLF  
W. H. McMillan, DOE/OR, Oak Ridge, TN  
Leo Drozdoff, DCNR, Carson City, NV  
Colleen Cripps, NDEP, Carson City, NV  
M. J. Elges, NDEP, Carson City, NV  
J. J. MacDougall, NDEP, Las Vegas, NV  
R. F. Bochlecke, EMO, NNSA NSO,  
Las Vegas, NV  
J. A. Appenzeller-Wing, D/AMEM,  
NNSA NSO, Las Vegas, NV  
S. A. Hejazi, SC, NNSA/NSO,  
Las Vegas, NV  
S. J. Lawrence, D/MGR, NNSA/NSO,  
Las Vegas, NV  
NNSA/NSO Read File



## Waste Acceptance Review Panel (WARP) Agenda

Wednesday, December 5, 2012, 3:00 p.m.

North Las Vegas Facility, Building C-1, 2nd Floor, Room 6684

Call-In Number: 1-877-336-1828 (enter pass-code 7330371# at the prompt)

### LLW PROFILES TO BE DISCUSSED

|                    |   |
|--------------------|---|
| <b>LLNL</b>        | BCLAL1.TRITIUM, Rev. 06, 11/29/2012, Tritium-Contaminated Waste           |
| Lead:              | Derrell Harmon  |
| Received Date:     | 11/08/2012  |
| Reviews:           | NNSS  |
| Status:            | Prepared for signature pending additional comments.                       |
| <b>BNL</b>         | BNLX000000010, Rev. 07, 11/21/2012, Solidified Radioactive Aqueous Liquid |
| Lead:              | Alexander Dellaverson   |
| Received Date:     | 11/26/2012  |
| Reviews:           | NNSS  |
| Status:            | Prepared for signature pending any comments.                              |
| <b>BNL</b>         | BNLX000000012, Rev. 02, 11/20/2012, BLIP Cans and Windows                 |
| Lead:              | Gregg Geisinger   |
| Received Date:     | 11/26/2012  |
| Reviews:           | NNSS  |
| Status:            | Prepared for signature pending any comments.                              |
| <b>DRTK</b>        | DRTK000000050, Rev. 00, 09/14/2012, CEUSP Waste                           |
| Lead:              | Brian Moran   |
| Received Date:     | 08/16/2012  |
| Reviews:           | NNSS  |
| Status:            | Prepared for signature pending additional comments.                       |
| <b>West Valley</b> | WVDP000000018, Rev. 03, 11/26/2012, Drum Cell Cement Solidified Waste     |
| Lead:              | Gregg Geisinger   |
| Received Date:     | 11/26/2012  |
| Reviews:           | NNSS  |
| Status:            | Compiled comments to be discussed at the 12/05/2012 WARP Meeting.         |

good  
good

good  
good

good  
good

good  
good

commentary

Ed  
Rho  
Rick  
John  
Jeff  
Mike

state withdrew  
their opposition

### PRE-TREATMENT NOTIFICATION FORMS TO BE DISCUSSED

none

### MLLW PROFILES TO BE DISCUSSED

none

## Waste Acceptance Review Panel (WARP)

## Attendance Sheet

Wednesday, December 05, 2012; 3:00 pm  
NLVF, Building C1, 2<sup>nd</sup> Floor, Room 6684

| <u>Name</u>                           | <u>Organization</u> | <u>Phone Number</u> |
|---------------------------------------|---------------------|---------------------|
| _____ Bounds, Bradley                 | NSTec Operations    | 295-7505            |
| <u>X</u> _____ Cebe, Jim              | NNSA/NSO            | 295-0957            |
| <u>X</u> _____ Dellaverson, Alexander | NSTec RWAP          | 295-5878            |
| _____ Dixon, Marcus                   | NSTec RWAP          | 295-3623            |
| _____ Freter, Jerry                   | NSTec Operations    | 295-6808            |
| <u>X</u> _____ Geisinger, Gregg       | NSTec RWAP          | 295-5196            |
| <u>X</u> _____ Gordon, Sydney         | NSTec EM            | 295-0966            |
| _____ Gregory, Louis                  | NSTec Operations    | 295-9393            |
| _____ Harmon, Derrell                 | NSTec RWAP          | 630-0548            |
| _____ Linkenheil, Deron               | NSTec RWAP          | 295-1157            |
| <u>X</u> _____ MacDougall, Jeff       | NDEP                | 486-2850 ext 233    |
| <u>X</u> _____ McCullough, Mike       | NSTec Operations    | 295-5876            |
| _____ Moran, Brian                    | NSTec RWAP          | 295-6583            |
| <u>X</u> _____ Romo, Janis            | NNSA/NSO            | 295-0838            |
| <u>X</u> _____ Shott, Greg            | NSTec EM            | 295-7388            |
| <u>X</u> _____ Takahashi, Edwin       | NSTec Operations    | 295-6100            |
| <u>X</u> _____ Tanaka, Kate           | NSTec Operations    | 295-9306            |
| <u>X</u> _____ Thomas, Rhonda         | NSTec Operations    | 295-9862            |
| _____ Wong, John                      | NDEP                | 486-2850 ext 245    |

\_\_\_\_\_ Pat Arnold

\_\_\_\_\_ Jon VonKno

\_\_\_\_\_ Rick Wagner



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**DEC 6 2012**

Greg Lawson, NNS Program Operations Manager, Duratek/EnergySolutions, Oak Ridge, TN

**APPROVAL TO SHIP DURATEK/ENERGYSOLUTIONS (DRTK) LOW-LEVEL  
RADIOACTIVE WASTE TO THE NEVADA NATIONAL SECURITY SITE (NNS)**

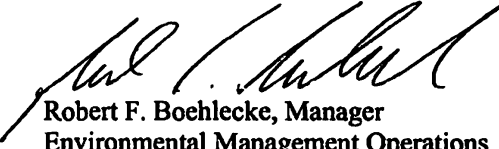
DRTK has completed the waste profile approval process described in the Nevada National Security Site Waste Acceptance Criteria (NNSWAC), Revision 9. The National Nuclear Security Administration Nevada Site Office (NNSA/NSO) reviewed and commented on the following waste profile:

| <u>Waste Profile</u> | <u>Revision and Date</u> | <u>Description</u> |
|----------------------|--------------------------|--------------------|
| DRTK000000050        | Rev. 00, 09/14/2012      | CEUSP Waste        |

NNSA/NSO approves the shipment and disposal of the above listed waste stream under the requirements of the NNSWAC, Revision 9, and the DRTK Waste Certification Program. The enclosure lists the current DRTK approvals and supersedes all previous approval memoranda.

Prior to initiating shipment of this waste stream, please notify National Security Technologies, LLC (NSTec) Disposal Operations personnel at (702) 295-6811 with a planned shipping date. NSTec will ensure sufficient disposal capacity is available and provide the necessary equipment and personnel for disposal activities.

If you have any questions or comments, please contact James J. Cebe, Waste Management Activity at (702) 295-0957.

  
Robert F. Boehlecke, Manager  
Environmental Management Operations

EMO:9252.JJC

Enclosure:  
As stated

Greg Lawson

-2-

DEC 6 2012

cc w/encl. via e-mail:

J. J. MacDougall, NDEP, Las Vegas, NV

T. H. Murphy, NDEP, Las Vegas, NV

R. M. Guertal, Duratek/Energy Solutions, Oak Ridge, TN

D. C. Moore, Isotek Systems, LLC, Oak Ridge, TN

R. G. Geisinger, NSTec, Las Vegas, NV

K. C. Tanaka, NSTec, Las Vegas, NV

R. W. Thomas, NSTec, Mercury, NV

NSTec Correspondence Management Coordinator, MS NLV008

J. J. Cebe, EMO, NNSA/NSO, Las Vegas, NV

K. K. Snyder, EMOS, NNSA/NSO, Las Vegas, NV

S. A. Hejazi, SC, NNSA/NSO, Las Vegas, NV

D. J. Morgan, OPA, NNSA/NSO, Las Vegas, NV

NNSA/NSO Read File