

Attached is the November 1994 Carlsbad Area Office's National Transuranic (TRU) Program Office (NTPO) Monthly Highlights report. This month's issue marks a change for the Monthly Highlights, which have been re-formatted to better communicate the accomplishments and activities of the NTPO and the TRU waste management system. Starting with this month, each month's highlights will begin with a feature article covering a relevant and timely issue within the NTPO, followed by a brief summary of the major accomplishments and activities for the month, and the upcoming activities calendar.

This month's feature reviews the Small Quantity Site (SQS) issue and the NTPO's efforts to include the SQS waste into the overall TRU waste management program. The NTPO is counting on the cooperation of all of the major generator/storage sites to assist in the consolidation of SQS waste and provide for the effective management of DOE TRU waste.

Other major accomplishments include

- The TRU waste carrier contract was awarded to TAD Trucking of Hobbs, NM.
- The November TRU Steering Committee Meeting was held in San Antonio, TX, and the Site Logic Diagrams were distributed.
- The annual TRU Update Meeting was sponsored by the CAO/NTPO and held December 1st, in San Antonio, TX.
- Lawrence Livermore National Laboratory successfully validated TRUPACT-II loading procedures as part of its Operational Readiness Review.
- The NTPO is working with the Office of Technology Development (EM-50) to incorporate TRU waste technology needs.





Addressees

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I hope you find the new format useful and informative. If you have any suggestions for feature articles or comments on the Monthly Highlights, please contact me at (505) 234-7467.

Bolo Some Mark L. Matthews, P.E.

Manager National TRU Program Office

Attachment

cc w/attachment: George Dials, CAO Vernon Daub, CAO Mike Daugherty, CAO Kent Hunter, CAO Mike McFadden, CAO Robert Wise, CAO Dennis Hurtt, CAO Joe Lippis, CAO Bob Spooner, CAO

### Addressees

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Nevarez, Richard	ALO-WMD
Cunnane, Jim	ANL-E
Green, Dave	ANL-E
Schletter, R. M.	ANL-E
Duncan, Dave	ANL-W
Dwight, Carla	ANL-W
Lawson, Kathy	BCL
Baillieul, Tom	BCLDP
Haugen, Joel C.	CHO
Lang, Ray	CHO
Neill, Robert	EEG
Arnold, Patrick	EG&G, RFP
O'Leary, Gerry A.	EG&G, RFP
Finney, Ray	EG&G, Mound
Grumbly, Tom	EM-1, HQ
Scarborough, Muriel	EM-10, HQ
Scott, Randal	EM-20, HQ
Cowan, Steve	EM-30, HQ
Lytle, Jill E.	EM-30, HQ
Griffith, Andrew	EM-321, HQ
Mark, David	EM-321, HQ
Rhoderick, Jay	EM-321, HQ
Walter, Henry	EM-321, HQ
Zenkowich, Matt	EM-323, HQ
Bubar, Patrice	EM-33, HQ
Turi, Jim	EM-33, HQ
Williams, Jeff	EM-332, HQ
Frei, Mark	EM-34, HQ
Tonkay, Doug	EM-341, HQ
Bower, Bryan	EM-342, HQ
Schneider, Steven	EM-342, HQ
Van Camp, Scott	EM-342, HO
Boda, Joe	EM-363, HQ
Baublitz, John E.	EM-40, HO
Frank, Clvde	EM-50, HQ
Bixby, Willis W.	EM-60, HQ
Benetti, Jim	EPA
Oge, Margo	EPA
Pearman, Don	FM-1, HO
Hinckley. Darrell G.	IDO
Case, Joel	IDO
Kirkman, Larry D.	LAAO
Mack, John	LAAO
Vozella, Joseph	LAAO
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Austin, Larry	LANL
Derr, Ed	LANL
Harper, John	LANL
Kosiewicz, Stanley	LANL
LeBrun, Bruce	LANL
Osetek, Dan	LATA
Clements, Tom	LITCO
Martin, Michael R.	LITCO
Pound, Don, G.	LITCO
Hainebach, Kem	LLNL
Rothman, Rob	MAO
Espinosa, Judith	NMED
Gertz, Carl	NVO-WMD
Ginanni, Joseph	NVO-WMD
Corey, Ray	OAK
Kearns, Roy	OAK
Vincent, Oba	ОН
Roddye, Mac	ORO
Radcliffe, Larry	ORO
Arakawa, Paul	ORNL, MMES
Moore, J. W.	ORNL, MMES
Moore, J. W. Gonzales, Carlos C.	ORNL, MMES REECo, NV
Moore, J. W. Gonzales, Carlos C. Bell, Melody	ORNL, MMES REECo, NV RFO
Moore, J. W. Gonzales, Carlos C. Bell, Melody Melberg, Timothy	ORNL, MMES REECo, NV RFO RFO
Moore, J. W. Gonzales, Carlos C. Bell, Melody Melberg, Timothy Guercia, Rudy	ORNL, MMES REECo, NV RFO RFO RLO
Moore, J. W. Gonzales, Carlos C. Bell, Melody Melberg, Timothy Guercia, Rudy Hennig, June	ORNL, MMES REECo, NV RFO RFO RLO RLO
Moore, J. W. Gonzales, Carlos C. Bell, Melody Melberg, Timothy Guercia, Rudy Hennig, June Orrell, Andrew	ORNL, MMES REECo, NV RFO RFO RLO RLO SNL
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## NATIONAL TRU PROGRAM OFFICE (NTPO)

# HIGHLIGHTS, NOVEMBER 1994



Department of Energy Carlsbad Area Office Carlsbad, New Mexico

## NTPO Highlights November 1994

#### Feature Article - Small Quantity Sites

The NTPO defines a Small Quantity Site (SQS) as an organization which is currently generating less than 1000 m<sup>3</sup> per year and/or currently stores less than 500 m<sup>3</sup> of transuranic (TRU) or mixed TRU waste which is under the possession of the Department of Energy (DOE), and which is not yet fully integrated into the NTPO TRU waste management programs. This definition excludes the traditionally recognized large generator sites (INEL, RFETS, etc.) which might otherwise fit the numerical limits of the definition because of recent changes in the mission of some of the traditional large generator sites.

The NTPO initiated a SQS Task Group which is working to identify and incorporate SQS into the TRU waste management programs. To date the SQS Task Group has identified several dozen potential Small Quantity Sites. Many of the sites are not owned or operated by the DOE, but are or were contracted to DOE and its contractors. The Task Group is in the process of confirming the quantities and types of DOE-owned TRU waste at each SQS. The Task Group is expected to add this inventory data to revision 2 of the NTPO's TRU Waste Database. Identification of other potential SQS and their waste inventories continues.

In addition, the NTPO SQS Task Group initiated in June of 1994 a Small Quantity Sites Demonstration Project. The intent of the SQS Demonstration Project is to exercise the DOE's capability to safely and efficiently ship transuranic waste from the SQS to larger sites for interim storage pending disposal at WIPP and to develop the DOE's SQS waste management strategy in accordance with programmatic and regulatory requirements.

The Small Quantity Site Demonstration Project is actively working to identify and resolve all issues encountered in consolidating selected SQS waste at larger storage sites. Several Small Quantity Sites were selected to participate in the Demonstration Project, including the National Institute for Standards and Testing (NIST), Babcock and Wilcox, Knolls Atomic Power Lab, Bettis Atomic Power Lab, Teledyne-Brown Engineering, Energy Technology Engineering Center, Lawrence Berkeley Laboratory and Battelle Columbus. The Hanford, Rocky Flats and Savannah River sites have expressed interest in participating as potential "receiver" sites.

In October of 1994, the NTPO sponsored a meeting between representatives of selected SQS and the Savannah River Site as part of the SQS Demonstration Project. The meeting was successful in providing a greater understanding of 1) the specific SQS inventory,

2) the SQS capability to characterize, package, and certify the waste, 3) the requirements for receipt of waste at the Savannah River Site, and 4) the potential transportation options. A similar meeting is planned between Hanford and other selected SQS.

From discussions with the potential receiver sites and the November TRU Steering Committee Meeting, it is clear that shipment and storage of SQS waste at larger DOE facilities will hinge primarily on the outcome of state equity discussions under the Federal Facility Compliance Act Site Treatment Planning process and resolution of issues raised by the receiving site stakeholders. In addition, appropriate policy directives from DOE Headquarters may be required. To better illustrate the issues associated with SQS waste management, a profile is provided of one SQS, Teledyne-Brown Engineering of New Jersey.

In 1982, Teledyne-Brown Engineering was subcontracted by Westinghouse Materials Co., OH, which was under contract to DOE, for precious metal recovery from TRU waste. In 1986, Teledyne received one barrel of TRU waste from Rocky Flats for precious metal recovery processing. This waste processing resulted in 1 barrel containing 9 gm Pu dispersed within masses of lead-borosilicate glass. The Teledyne facility is limited by its NRC license to 10 gm Pu on-site. In 1987, the Teledyne contract with Westinghouse Materials Co. was amended to authorize the shipment of waste which could not be disposed in commercial facilities to unspecified DOE sites. Previously, Teledyne had shipped process waste to the commercial disposal facility at Hanford. Since at least 1991 Teledyne has made several attempts to work with the DOE to arrange for the transport of this one drum to an appropriate DOE facility. In August of 1994, Teledyne sent its latest request for disposition to EM-30, which referred the issue to the NTPO. The NTPO has included Teledyne in the SQS Demonstration Project and has been working with the larger DOE facilities and DOE-Headquarters to facilitate the disposition of this one barrel. As stated above, progress on this issue will depend on the resolution of the Federal Facility Compliance Act Site Treatment Planning process, state equity and stakeholder issues.

The NTPO and the Small Quantity Site Task Group is actively pursuing the resolution of these issues. It is the goal of the SQS Demonstration Project to successfully consolidate some SQS waste at a larger DOE facility before the end of FY95 and thereby provide practical experience in establishing DOE policy for the effective management of SQS waste.

#### **Major Program Activities**

#### Land Withdrawal Act (LWA)

NTPO has begun work on the development of the draft policy position for comprehensive disposal recommendations for all DOE TRU waste. A comprehensive disposal policy is required by the Land Withdrawal Act (LWA), Section 7(b)(5), which is due to Congress prior to disposal operations beginning at WIPP. The position report is expected to address WIPP follow-on repository options, consideration of all waste that is not presently identified for disposal in WIPP, DOE policy with respect to the long-range planning for TRU waste disposal, and several key assumptions that must be developed to assure that the final recommendations are comprehensive.

In addition, NTPO is continuing work on the compilation of waste treatment technologies to satisfy the LWA Section 19 requirement for a review of relevant TRU waste treatment technologies. The review of treatment technologies is due to Congress by October 1995. The NTPO is coordinating with EM-50 to ensure the technology programs include NTPO and possible WIPP technology needs.

#### Remote-Handled (RH) Waste

In November, the NTPO held two status meetings on Remote Handled (RH) Waste to promote coordination of subtasks and refine the work package for DOE. The draft work package was sent by DOE to the Environmental Evaluation Group (EEG) in preparation for a discussion meeting to be held December 20 in Albuquerque.

Several documents were collected that have relevance to the treatment of TRU waste. The preliminary Baseline Inventory Report (BIR) Rev. 1 data were obtained to use in treatment evaluations, and Programmatic Environmental Impact Statement (PEIS) input assumptions were obtained to coordinate with the RH system analysis. Site treatment plans prepared for the FFC Act and site specific logic diagrams prepared for CAO are also being sought for input to the treatment evaluations and the RH system analysis.

#### TRU Waste Steering Committee & TRU Waste Update Meeting

The NTPO hosted the quarterly TRU Waste Steering Committee Meeting, held in San Antonio, Texas, on November 29-30, 1994 with approximately 50 participants in attendance. Topics discussed at the meeting included: the status and approach to WIPP compliance, the System Prioritization Method, the Waste Acceptance Criteria, the definition of defense TRU waste, Remote-Handled TRU Waste Management Plan, and

mobile characterization equipment. The NTPO distributed the Detailed Site Logic Diagrams to each site representative at the Steering Committee Meeting. Each representative is to check the correctness of the diagram. The information from these diagrams will be used in simulation models at the Idaho National Engineering Laboratory that will provide an analysis of what the current TRU waste system looks like and where improvements can be made. The modeling for the Idaho National Engineering Laboratory, Hanford Site, and Rocky Flats Environmental Technology Site should be completed by March 1995.

The NTPO sponsored this years annual TRU Waste Update Meeting, which was held on December 1, in San Antonio, Texas, in conjunction with the TRU Waste Steering Committee Meeting. Representatives from the Carlsbad Department of Development, the Environmental Evaluation Group, the Environmental Protection Agency, and the New Mexico Environment Department attended. Topics discussed included an update of WIPP activities, Performance Based Waste Acceptance Criteria, the WIPP TRU Waste Baseline Inventory Report and TRU waste characterization activities.

#### **Technology Development**

The NTPO is responsible for promoting the development of new and innovative technologies that can directly improve the performance of the national TRU waste management system. Within the DOE's Environmental Management program, the Office of Technology Development (EM-50) is administering a new national program of applied research, development, demonstration and testing of innovative technologies. The NTPO will achieve its technology development responsibilities by actively participating in the EM-50 process, and thereby avoid duplication of effort and maximize the use of DOE resources.

The NTPO is gathering TRU-related technology development needs from the generator sites and working with EM-50 to have those needs addressed through the new EM technology development process. The NTPO is working with EM-50 to participate in the technology review process. The NTPO and EM-50 will finalize a working agreement in a meeting scheduled for December 9, 1994.

#### Waste Characterization

The NTPO is reviewing with INEL an annotated outline of the Transuranic (TRU) Waste Characterization Plan.

A three-member team from INEL visited the Hanford site on November 3, 1994, to provide additional guidance for the development of the TRU waste characterization

document to the Westinghouse Hanford Company (WHC) staff. Representatives from Carlsbad and Westinghouse Savannah River were in attendance at the workshop. The main objectives of why and how the waste characterization parameters can be met were addressed very successfully. A draft TRU Waste Characterization Plan is scheduled for review distribution by the end of December, 1994.

#### Packaging & Transportation

NTPO gathered representatives from the WID and generator sites to resolve comments on the modifications on the draft RH-TRU Safety Analysis Report (SARP) for the 72-B shipping cask. Comment resolution and incorporation of all changes into the document is scheduled to be completed in early December 1994, and the printing is scheduled to be completed by the end of December 1994. The revised SARP will be provided to the CAO in March 1995.

The WID and the TRU waste carrier supported the successful validation of the TRUPACT-II transportation package loading and unloading procedures at Lawrence Livermore National Laboratory (LLNL). The demonstration was requested as part of an Operational Readiness Review at the LLNL. LLNL is working with WID and the NTPO to secure additional TRUPACT II training.

After a technical evaluation by an independent panel and separate cost analysis of proposals received for the NTPO TRU Waste carrier contract, the WID awarded the contract to TAD Trucking of Hobbs, NM. The contract was effective December 1, 1994. The contract is for one year, with four one-year options. The existing contract with Dawn Enterprises, Inc. allows for a carrier transition period through March 15, 1994 if required. The transition period allows the new carrier to obtain and equip a new tractor and to hire and train drivers to WID requirements.

## NATIONAL TRANSURANIC PROGRAM OFFICE (NTPO) Activities Calendar

Date	Place	Event
12/1/94	San Antonio, TX	TRU Update Meeting
12/13/94	Carlsbad, NM	Executive Committee Meeting
1/11/95		TRU Steering Committee Teleconference

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