



OAK RIDGE RESERVATION

Environmental Management

October 16, 1998

Mr. Earl Leming
Director
Tennessee Department of Environment and Conservation
DOE Oversight Division
761 Emory Valley Road
Oak Ridge, Tennessee 37830-7072

Dear Mr. Leming:

Members of the Oak Ridge Reservation Environmental Management Site Specific Advisory Board (ORREMSSAB) and other Oak Ridge stakeholders attended an intersite seminar on low level waste (LLW) disposition held in Las Vegas on August 17-19, 1998. This seminar, hosted by the Nevada Test Site Citizens Advisory Board (NTS CAB) was beneficial in helping the attendees understand and address overall LLW disposition issues within the Department of Energy (DOE) complex.

In conjunction with the seminar, a tour of the NTS was taken, with primary emphasis on waste handling and disposal. During the tour, we were made aware of a very small number of containers (~5) containing two low level mixed waste (LLMW) streams which are being stored in temporary facilities and/or open air. This LLMW cannot be permanently disposed of at NTS, nor does NTS have proper waste treatment capabilities to process the waste to a form suitable for disposal. The LLMW had been scheduled and approved for shipment to Oak Ridge for treatment at the Toxic Substance Control Act Incinerator (TSCAI). It is our understanding that NTS would then be responsible for disposal of any residual ash. However, TSCAI is currently precluded from accepting these wastes by policy of the State of Tennessee.

On the other hand, ORREMSSAB is aware that Oak Ridge has three waste streams totaling approximately 1500m³ which are appropriate for disposal at NTS, e.g., certain solidified liquids and some pressed filter cake. These waste streams have been approved for acceptance and disposal by NTS but cannot be shipped since Oak Ridge was not identified as an approved off site waste generator in the final NTS site-wide Environmental Impact Statement (EIS).

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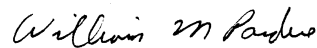
We understand that the States of Tennessee and Nevada are endeavoring to reach an equitable solution to both of these problems. As an example, Tennessee might allow use of TSCAI for the NTS MLLW and in exchange, Nevada could entertain a modification by DOE of the final NTS site-wide EIS Record of Decision that prevents receipt of wastes at NTS from Oak Ridge.

The ORREMSSAB believes that such an agreement between Tennessee and Nevada would be exemplary. It not only would demonstrate good faith in starting to solve the difficult national issue of waste disposal but would demonstrate a significant example of equity in practice.

The attendant details of such an agreement are obviously beyond the realm of ORREMSSAB competency; however, we strongly endorse the endeavor and are hopeful of a successful agreement.

If you have questions, please feel free to contact me at 483-6831.

Sincerely,



William M. Pardue,
Chair

WMP/sb

cc: R. Nelson, DOE/ORO
M. Heiskell, DOE/ORO
S. Riddle, DOE/ORO
K. Hazard, SAIC at DOE/HQ
J. Wilson, TDEC
A. Biaggi, Director, Nevada Division of Environmental Protection
P. Liebendorfer, Nevada Department of Conservation & Natural Resource
D. Schutte, NTS CAB
E. Dixon, NTS CAB
S. Gawarecki, LOC

WASTE STREAM: MMES-ORNL00001

TITLE: Solidified Liquid Low Level Waste

GENERATING PROCESS DESCRIPTION:

This waste originates from ORNL research and development facilities. The waste is solidified liquid extracted from two radioactive liquid storage tanks, W-29 and W-30, located at the Melton Valley Storage Tanks Area. The liquid is mixed with a solidifying agent consisting of a Portland cement (Type 1) and lesser components of low-calcium Class F fly ash, blast furnace slag (Grade 120), and celite. This waste also consists of surrogate waste forms. Prior to each solidification campaign, surrogate liners were generated from recirculated solidified water.

ESTIMATED RATE OF GENERATION: Ongoing, 642 m³/yr

LIST REPORTABLE RADIONUCLIDES AS DEFINED IN THE WAC:

Radionuclide	Activity Range (Bq/m ³)	Activity Representative of Final Waste Form (Bq/m ³)
Cs-137	8.57E+8 to 3.75E+11	6.16E+10
Cs-134	7.58E+8 to 1.51E+9	1.13E+9
Co-60	8.57E+8 to 2.39E+9	1.62E+9
Sr-90	1.31E+7 to 9.07E+7	4.16E+7
C-14	3.78E+7 to 4.87E+7	4.32E+7

CONTAINER TYPE(S): The 6 ft. (high) X 6 ft. (diameter) waste containers will be shipped in Type A, DOT containers.

DOT SPECIFICATION(S)/DESCRIPTION(S): LSA I or LSA II

WASTE STREAM: MMES-ORNL00002

TITLE: Legacy Solidified Liquid Low Level Waste

GENERATING PROCESS DESCRIPTION:

This waste originates from ORNL research and development facilities. The waste was generated during the first two solidification campaigns at ORNL - the Emergency Avoidance Solidification Campaign (EASC) and Liquid Waste Solidification Project I (LWSP I) completed in 1989 and 1992, respectively.

ESTIMATED RATE OF GENERATION: One Time Only, 615 m³

LIST REPORTABLE RADIONUCLIDES AS DEFINED IN THE WAC:

Radionuclide	Activity Range (Bq/m ³)	Activity Representative of Final Waste Form (Bq/m ³)
Cs-137	8.33E+10 to 1.69E+11	1.26E+11

Cs-134	4.5E+8 to 8.57E+8	6.52E+8
Co-60	1.8E+8 to 4.5E+8	3.15E+8
Sr-90	5.84E+8 to 1.08E+9	8.33E+8
H-3	7.64E+8 to 8.99E+8	8.32E+8
Eu-155	8.99E+8 to 1.35E+9	1.12E+9
C-14	4.20E+6 to 5.49E+6	4.83E+6

CONTAINER TYPE(S): The 6 ft. (high) X 6 ft. (diameter) waste containers will be shipped in Type A, DOT containers.

DOT SPECIFICATION(S)/DESCRIPTION(S): LSA I or LSA II

WASTE STREAM: MMES-ORNL00004

TITLE: Pressed Filter Cake Waste Generated at ORNL

GENERATING PROCESS DESCRIPTION:

Various liquid wastes generated on the ORNL site are transferred to the Process Waste Treatment Plant (PWPT) for softening, clarification, filtration, ion exchange. The product of the treatment process is filter cake which is dewatered to remove excess liquid. The filter cake is then packaged in 55-gallon carbon steel drums lined with polyethylene plastic.

ESTIMATED RATE OF GENERATION: Ongoing, 240 m³/yr

LIST REPORTABLE RADIONUCLIDES AS DEFINED IN THE WAC:

Radionuclide	Activity Range (Bq/m ³)	Activity Representative of Final Waste Form (Bq/m ³)
Cs-137	1.5E+5 to 1.25E+8	6.06E+7
Eu-152	1.39E+6 to 5.46E+7	1.21E+7
Eu-154	4.45E+5 to 3.23E+7	6.11E+6
Sr-90	0 to 1.25E+9	2.32E+8

CONTAINER TYPE(S): 55-gallon drums, B-25 Boxes

DOT SPECIFICATION(S)/DESCRIPTION(S): Strong, tight container

RECEIVED JUL 14 1998

STATE OF NEVADA
BOB MILLER
Governor

Waste Management
Corrective Actions
Federal Facilities

Air Quality
Water Quality Planning
Facsimile 687-6396

PETER G. MORROS, Director

H. DODGION, Administrator

687-4670
687-4678

Administration
Mining Regulation and Reclamation
Water Pollution Control
Facsimile 687-5856



DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION

333 W. Nye Lane, Room 138
Carson City, Nevada 89706-0851

July 10 1998

PROGRAM	SITE #	PROJECT #	FILE SEQUENCE

Carl Gertz
Environmental Management
U.S. Department of Energy
P.O. Box 98518
Las Vegas, Nevada 89193-8518

ROUTE TO: *WHC*

EC 7/5
JNC ✓

Re: Low-Level Radioactive Waste Streams, Oak Ridge National Laboratory

Dear Mr. Gertz:

It is our understanding that the U.S. Department of Energy's Oak Ridge National Laboratory (ORNL) is requesting authorization to ship three specific Low-Level Waste (LLW) streams to the Nevada Test Site (NTS) for disposal. The waste streams include both solidified liquids and pressed filter cake (see attached summary). In terms of volume, DOE records indicate that approximately 1500 m³ of waste is proposed for shipment to the NTS during federal fiscal year 1999.

Although these waste streams were previously approved for acceptance at the NTS (per the NTS Waste Acceptance Criteria), the Oak Ridge National Laboratory was not an approved NTS off-site waste generator and, therefore, could not ship the referenced waste to Nevada for disposal. The list of existing offsite NTS waste generators was frozen per the Record of Decision for the NTS Site-Wide Environmental Impact Statement (EIS). Thus, without an amendment to the Record of Decision document, DOE\Nevada cannot accept these wastes from ORNL for disposal at the NTS.

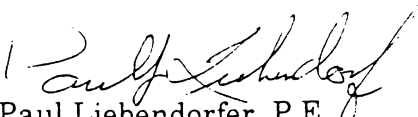
State officials are aware, however, that when DOE headquarters issues the ROD for the Programmatic Waste Management EIS, Oak Ridge will likely become an approved offsite NTS waste generator, thereby allowing ORNL to ship the wastes to the NTS for disposal.

We are aware that NTS has two existing small quantity (<1.0m³) Low-Level Mixed Waste (LLMW) streams slated for shipment to Oak Ridge for treatment (burn-up) in the Toxic Substance Control Act (TSCA) incinerator. While these waste streams have been approved by Oak Ridge for incineration, we understand that the TSCA incinerator is currently closed to all off-site users. Accordingly, and assuming that Oak Ridge opens the TSCA incinerator for Nevada's waste streams, we would consider a proposal by DOE/Nevada to amend the NTS-EIS-ROD to address acceptance of the waste streams from Oak Ridge. As part of any proposed discussions, however, we would expect DOE to address the transfer of certain funds (i.e., FY99 cost savings associated with storage of the referenced waste streams at Oak Ridge) to the NTS environmental restoration program to expand the Underground Test Area Sub-Project (UGTA program).

In addition to these concerns, any negotiations concerning a proposed amendment to the NTS ROD must also include actions by DOE to address the State's previously defined "Equity Issues" detailed in comments by the Governor's Office (NWPO) on DOE's Paths to Closure document(s). Likewise, these negotiations should also involve discussions about certain outstanding issues contained in the State/DOE settlement agreement stipulated under the NTS law suit (CV-S-94-00576-PMP-(RLH)).

If you would like to discuss these issues in detail, please contact me or John B. Walker at 687-4670, ext 3039 or 3027.

Sincerely,


Paul Liebendorfer, P.E.
Chief, Bureau of Federal Facilities

Attachment

PL/jbw

cc: Allen Biaggi, NDEP
Karen Beckley/Mike McKinnon, NDEP
Robert R. Loux, Governor's Office - NWPO
Marta Adams, Attorney General's Office, Nevada
Earl Leming, State of Tennessee
Mark Frei, DOE\HQ
Jay Rhoderick, DOE\HQ
Ann Beauchesne, NGA