

# Los Alamos

NATIONAL LABORATORY

Hazardous & Solid Waste Group

Los Alamos National Laboratory

Los Alamos, New Mexico 87545

Date: June 21, 1996

In Reply Refer To: ESH-19-96-0234

Mail Stop: K498

Telephone: (505) 665-0223

Mr. Michael LeScouarnec  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
2044 Galisteo St., Bldg. A  
P.O. Box 26110  
Santa Fe, NM 87505

Dear Mr. LeScouarnec:

**SUBJECT: REQUEST FOR CHARACTERIZATION INFORMATION ON 12  
DRUMS DURING NMED 1996 ANNUAL RCRA/HWA INSPECTION**

It is our understanding that during your inspection of the facilities at TA-21, you requested characterization information on twelve drums, seven of which were identified as being located outside of TA-21-209, the Tritium Science and Fabrication Facility (TSFF), and five of which were identified as being located inside the TSFF. While the facility representative was unable to accommodate your request during the actual inspection, we are now able to provide you information that we trust is responsive to your request.

At the outset, we should state that the information that we have indicates that there were eight drums located outside the TSFF, one more than the seven originally identified as being outside. These eight drums had historically been managed as low-level radioactive waste (their contents include tritium contaminated material), and not RCRA/HWA mixed waste, based on knowledge of the processes that produced the waste. This initial waste determination recently received confirmation, when the contents of the drums underwent radiographic analysis.

*This doesn't explain how RCRA wastes were documented*

We are enclosing for your information the Laboratory internally approved waste profile form packet that includes the following items with reference to the contents of the eight drums: 1) the computer generated waste profile system classification form consisting of three pages and dated June 6, 1996, that confirmed the characterization of the waste in the eight (8) drums as "low level radioactive waste", 2) the originally filled-out waste profile form, consisting of four pages and dated 5/29/96, describing the drums contents as "non-compatible tritium contaminated parts and equipment", and 3) three one page documents consisting of (a) a memorandum from Henry L. Horak to Mary Martinez, dated May 20, 1996, transmitting the memorandum referred to in (b) and indicating that the contents of the eight drums do not include hazardous waste, (b) a memorandum from John Purson to Mary

16678



June 21, 1996

Martinez, dated May 20, 1996, indicating that the contents of the drums consisted of tritium contaminated parts and equipment and that no free liquids or RCRA waste were packaged in the drums, and (c) a one page list of eight drums that identifies the contents of the drums. Documents 3) (a), (b), and (c) accompanied the originally filled-out waste profile form to the CST organization responsible for approving a generator's waste characterization before acceptance of the waste material.

As to the five drums identified as being located inside the TSFF, these drums have been managed historically as low level radioactive waste only, based on application of the knowledge of the processes generating the waste, just as was done with the eight drums located outside the TSFF. Thus waste characterization has occurred and the contents of these drums have been determined to be low level radioactive waste and not RCRA regulated mixed waste. We are enclosing for your information a memorandum from John Purson to Mary Martinez, dated June 20, 1996 and consisting of one page, confirming the original waste determination for the contents of three (3) of the five drums. As to the fourth and fifth drums, we are enclosing a memorandum from Henry L. Horak to Mary Martinez, dated June 20, 1996 and consisting of one page, indicating that one of these drums is empty and confirming the original waste determination for the contents of the fifth drum. In connection with this fifth drum, we are also enclosing the computer generated waste profile system classification form #24074, dated June 6, 1996 consisting of three pages, and the originally filled-out waste profile form, consisting of four (4) pages and dated May 29, 1996 that confirm the initial waste determination of the contents of this drum as low level radioactive waste.

We hope that the above is responsive to your request. If you have further questions or comments regarding this matter, please do not hesitate to contact me at (505) 665-0223. Thank you.

Sincerely,



Michelle Cash  
Hazardous & Solid Waste

MMC:em

Cy: D. Erickson, ESH-DD, MS K491, w/o encl.  
J. Rochelle, LC/GL, MS A187, w/o encl.  
M. Martinez, ESA-FM, MS C928, w/ encl.  
J. Plum, DOE/LAAO, MS A316, w/ encl.  
CIC-10, MS A150  
ESH-19 Circ File

8 DRUMS

LOS ALAMOS NATIONAL LABORATORY  
WASTE PROFILE SYSTEM

WPF #: 24055

07-Jun-1996 01:11 AM

(Version: 1)

p.3

Activation Date : 06-JUN-96  
Generator : WALKER, LUAN  
WMC : MARTINEZ, MARY I. A.  
From : ART, KELLIE  
Subject : WASTE PROFILE FORM (WPF)

Expiration Date : 06-JUN-97  
MS : C348  
MS : C928

The Customer Service Team has reviewed and logged the information you have provided on the attached WPF(s). Based on the information you provided, your waste is classified as:

**LOW LEVEL RADIOACTIVE WASTE**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same and the generator remains the same. Should your waste or generator change, please submit a new WPF to CST Customer Service, and attach a copy of the WPF which is being replaced.

***PLEASE RETAIN THE ATTACHED  
WASTE PROFILE FORM FOR YOUR FILES***

**LOS ALAMOS NATIONAL LABORATORY  
WASTE PROFILE SYSTEM**

**WPF #: 24055**

07-Jun-1996 01:11 AM

(Version: 1)

p.1

Generator : **WALKER, LUAN** MS : **C348** PH : **56935** Z# : **110369**  
 WMC : **MARTINEZ, MARY I. A.** MS : **C928** PH : **76439** Z# : **095492**  
 CSR : **ART, KELLIE** MS : **J593** PH : **75909** Z# : **112794**  
 Status : **ACTIVE** Activation Date : **06-JUN-96** Expiration Date : **06-JUN-97**

Group : **ESATSE** TA : **21** Bldg : **000209** Room : **0**

RMMA : **RADIOACTIVE MATERIALS MANAGEMENT AREA (RMMA) 21009**

Waste Accumu : **N/A**

Method of Char : **KNOWLEDGE OF PROCESS (KOP)**

Waste Type : **PROCESS WASTE/SPENT CHEMICAL**

Waste Classes : **ONE TIME GENERATION  
RADIOACTIVE**

Assoc Docum : **N/A**

Waste Category : **NOT APPLICABLE**

Waste Sources : **MATERIAL PROCESSING  
RESEARCH AND DEVELOPMENT**

Waste Matrix : **SOLID**

Matrix Type : **HETEROGENEOUS**

Waste/Proc Desc : **THE CONTENTS ARE NON-COMPACTIBLE TRITIUM CONTAMINATED PARTS AND  
EQUIPMENT WHICH SUPPORTED THE NTS SALTLINE GLOVEBOX.**

Ignitability : **NOT IGNITABLE**

Corrosivity : **NOT AQUEOUS**

Reactivity : **NON REACTIVE**

Boiling Point : **NOT APPLICABLE**

Toxicity Characteristic Metals : **N/A**

Toxicity Characteristic Organic Compounds : **N/A**

Additional Chemical Constituents and Contaminants :

Constituent	CAS NO	MIN	MAX	UOM
<b>METAL (NON-HAZARDOUS)</b>		<b>100</b>	<b>100</b>	<b>%</b>

Radiological Characteristics :

Radionuclide	Min	Max	Unit
<b>H3</b>	<b>0.000E+00</b>	<b>9.664E+03</b>	<b>CIG</b>

Rad Contamination Type : **SURFACE CONTAMINATION  
VOLUME CONTAMINATION**

Waste Water Contaminants : **N/A**

**WASTE CHARACTERIZATION INFORMATION**

Radioactivity Category : **Low Level Rad**

LOS ALAMOS NATIONAL LABORATORY  
WASTE PROFILE SYSTEM

WPF #: 24055

07-Jun-1996 01:11 AM

(Version: 1)

p.2

RCRA Category : **Non-hazardous Waste**

Misc. Category : N/A

Waste Classification : **LOW LEVEL RADIOACTIVE WASTE**

EPA Hazardous Waste Code : N/A

Account Information

For rapid processing, complete all sections in black or blue ink and mail this form to Waste Services Group at MS J579

Reference Number

Waste Generator's Name (Print) <b>Luan Walker</b>		Znumber <b>110369</b>	Waste Management Coordinator's Name (Print) <b>May A. Mat.</b>		Znumber <b>095492</b>
Generator's Group <b>ESA-TSE</b>	Generator's Telephone <b>5-6935</b>	Generator's Mail Stop <b>C348</b>	Waste Stream Technical Area <b>21</b>	Building <b>209</b>	Room <b>n/a</b>

**Waste Accumulation**  
Check as many as apply.

Satellite accumulation area → site no.: \_\_\_\_\_  
 Less than 90 day accumulation area → site no.: \_\_\_\_\_  
 Radioactive Materials Management Area (RMMA) → site no.: **21-009**  
 None of the above

**Method of Characterization**  
Check as many as apply.

Acceptable Knowledge (AK)  MSDS attached  
 Analysis attached → sample/request no. \_\_\_\_\_  Request for analysis

**Section 1- Chemical and Physical Characteristics**

For help in completing this section of the form, call 5-WAST or 5-4000.

<p><b>Waste Type</b> Check only one.</p> <p> <input type="checkbox"/> Unused/unspent chemical <i>Check Waste Classes and Associated Documentation Only</i>  <input checked="" type="checkbox"/> Process waste/spent chemical <i>Complete all of Section 1.</i> </p>	<p><b>Waste Category</b> Check as many as apply.</p> <p> <input type="checkbox"/> Solvent  <input type="checkbox"/> Degreaser  <input type="checkbox"/> Dioxin  <input type="checkbox"/> Electroplating  <input type="checkbox"/> Treated hazardous waste residue  <input type="checkbox"/> Explosive process waste  <input type="checkbox"/> Infectious/biological waste  <input type="checkbox"/> Beryllium  <input type="checkbox"/> Asbestos-friable  <input type="checkbox"/> Asbestos-nonfriable  <input type="checkbox"/> Empty containers  <input type="checkbox"/> PCB (&lt;50 ppm)  <input type="checkbox"/> PCB (50 - 500 ppm)  <input type="checkbox"/> PCB (&gt; 500 ppm)  <input type="checkbox"/> id. no.: _____  <input checked="" type="checkbox"/> Not applicable → describe below                 </p>	<p><b>Waste Sources</b> Check as many as apply.</p> <p> <input checked="" type="checkbox"/> Research and development  <input type="checkbox"/> Maintenance  <input type="checkbox"/> Construction  <input checked="" type="checkbox"/> Material processing  <input type="checkbox"/> Decor/decom  <input type="checkbox"/> Investigation derived  <input type="checkbox"/> Remediation  <input type="checkbox"/> UST - petroleum  <input type="checkbox"/> UST - non-petroleum  <input type="checkbox"/> Generator treatment  <input type="checkbox"/> Interim/permitted treatment  <input type="checkbox"/> Industrial sludge  <input type="checkbox"/> Sanitary sludge  <input type="checkbox"/> Abatement                 </p>	<p><b>Waste Matrix</b> Check only one.</p> <p> <b>Gas</b>  <input type="checkbox"/> ≤ 1.5 Atmospheres  <input type="checkbox"/> &gt; 1.5 Atmospheres  <b>Liquid</b>  <input type="checkbox"/> Aqueous  <input type="checkbox"/> Organic  <input type="checkbox"/> Inorganic  <b>Solid</b>  <input type="checkbox"/> Powder/ash  <input checked="" type="checkbox"/> Solid  <input type="checkbox"/> Absorbed liquid                 </p>
<p><b>Waste Classes</b> Check as many as apply.</p> <p> <input type="checkbox"/> On-going generation  <input checked="" type="checkbox"/> One-time generation  <input checked="" type="checkbox"/> Radioactive (complete Sec. 2)  <input type="checkbox"/> Non-radioactive  <input type="checkbox"/> Wastewater (complete Sec. 3)  <input type="checkbox"/> Classified/Sensitive                 </p>	<p><b>Associated Documentation</b> Check as many as apply.</p> <p> <input type="checkbox"/> Process SOP → no.: _____  <input type="checkbox"/> RMMA OP → no.: _____  <input type="checkbox"/> WM SOP → no.: _____  <input type="checkbox"/> Other → _____  <input checked="" type="checkbox"/> None → describe below                 </p>	<p><b>Matrix Type</b> Check only one.</p> <p> <input type="checkbox"/> Homogeneous  <input checked="" type="checkbox"/> Heterogeneous → describe below                 </p>	

**Waste/Process Description**

The contents are non-compatible tritium contaminated parts and equipment which supported the NIS saltline glovebox.

## Section 1 Chemical and Physical Characteristics (continued)

**Ignitability (degrees F.)**  
Check only one.

< 73  
 73-99  
 100-139  
 140-200  
 > 200  
 Ignitable solid  
 DOT oxidizer  
 Not Ignitable

**Corrosivity (pH)**  
Check only one.

≤ 2.0  
 2.1-4.0  
 4.1-6.0  
 6.1-9.0  
 9.1-12.4  
 ≥ 12.5  
 Liquid corrosive to steel  
 Not aqueous

**Reactivity**  
Check as many as apply.

Unstable  
 Water reactive  
 Pyrophoric  
 Cyanide bearing  
 Sulfide bearing  
 Shock sensitive  
 Explosive - class \_\_\_\_\_  
 Non-reactive

**Boiling Point (degrees F.)**  
Check only one.

≤ 95  
 > 95  
 Not applicable

Identify presence of contaminants.		Minimum	Maximum	Unit (ppm or % only)	Analytical method
<b>Toxicity Characteristic Metals</b>					
Arsenic	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Barium	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Cadmium	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Chromium	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Lead	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Mercury	<input type="checkbox"/> None	<input type="checkbox"/> < 0.2 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Selenium	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Silver	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
<b>Toxicity Characteristic Organic Compounds</b>					
Benzene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Carbon tetrachloride	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Chlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Chloroform	<input type="checkbox"/> None	<input type="checkbox"/> < 6.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Cresol	<input type="checkbox"/> None	<input type="checkbox"/> < 200.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
1,4-dichlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 7.5 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
1,2-Dichloroethane	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
1,1-Dichloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.7 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
2,4-Dinitrotoluene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.13 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Hexachlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.13 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Hexachlorobutadiene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Hexachloroethane	<input type="checkbox"/> None	<input type="checkbox"/> < 3.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Methyl ethyl ketone	<input type="checkbox"/> None	<input type="checkbox"/> < 200.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Nitrobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 2.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Pentachlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Pyridine	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Perchloroethylene or tetrachloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.7 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Trichloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
2,4,5-Trichlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> < 400.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
2,4,6-Trichlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> < 2.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Vinyl chloride	<input type="checkbox"/> None	<input type="checkbox"/> < 0.2 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total

**Additional Chemical Constituents and Contaminants (for hazardous constituents, see AR 10-3, Appendix A)**  
List all other constituents (including inerts) not identified above and attach any applicable analyses.

Name of constituent	Cas no.(optional)	Minimum	Maximum	Unit (ppm or % only)
metal (nonhazardous) <i>residue</i>		100	to 100	%
_____	_____	_____	to _____	_____
_____	_____	_____	to _____	_____
_____	_____	_____	to _____	_____
_____	_____	_____	to _____	_____
_____	_____	_____	to _____	_____
_____	_____	_____	to _____	_____
_____	_____	_____	to _____	_____



### Section 3 - Wastewater Characteristics

*For help in completing this section of the form, call 7-4301.*

Identify presence of contaminants		Minimum	Maximum	Unit (ppm or % only)	Analytical method
Aluminum	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Boron	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Cobalt	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Copper	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Vanadium	<input type="checkbox"/> None	<input type="checkbox"/> < 0.10 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Zinc	<input type="checkbox"/> None	<input type="checkbox"/> < 95.4 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total

Maximum daily flow when discharge occurs: _____ <input type="checkbox"/> Gallons <input type="checkbox"/> Liters	Average daily flow when discharge occurs: _____ <input type="checkbox"/> Gallons <input type="checkbox"/> Liters
---	---

Estimated number of days per year that discharge will occur: \_\_\_\_\_

Estimated total volume per year discharged to the Radioactive Liquid Waste Collection System at TA-50-1: \_\_\_\_\_  
 Gallons     Liters

For TA-55 use only. Wastewater will be discharged through one of the following:

Acid line                       Caustic line                       Industrial waste line

### Section 4 - Additional Information

*If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below.*

**WASTE GENERATOR CERTIFICATION:** *Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.*

Signature <i>Luan Walker</i>	Date <i>5/29/96</i>
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## TSFF WASTE DRUM CONTENTS

30 gal drum (#8) ; 118#

- 1) Pipe nipple from shipping container

85 gal drum (#6 , C&D 20930 ) ; 702#

- 1) Air compressor PN 746402 , packed in tar

55 gal drum (#1 , C&D 20932 ) ; 310#

- 1) Misc piping
- 2) Belt shroud
- 3) Large metal bellows

55 gal drum (#2 , C&D17592 ) ; 294#

- 1) Vacuum pump PN 758534
- 2) Tubing
- 3) Metal brackets

55gal drum (#3 C&D 20930) ; 268#

- 1) Vacuum pump PN 645380
- 2) Open canisters
- 3) Misc metal pieces

55gal drum (#4 ) ; 414#

- 1) Vacuum pump
- 2) 2 Electric motors
- 3) Copper wiring
- 4) Tubing
- 5) Misc metal brackets

55 gal drum (#5 , C&D 20926 ) ; 110#

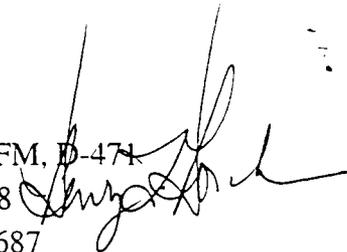
- 1) Vacuum pump PN 756584
- 2) Electric motor
- 3) Misc metal mounting brackets

55 gal drum (#7 , C&D 17589 ) ; 326 #

- 1) Metler balance PN 477589
- 2) Tubing
- 3) Metal bellows

**Los Alamos**  
NATIONAL LABORATORY  
**memorandum**

*Engineering Sciences and Applications*  
ESA-TSE, Tritium Science and Engineering

*To/MS:* Mary Martinez, ESA-FM, D-471  
*From/MS:* Henry L. Horak, C-348   
*Phone/FAX:* 665-2386/FAX 665-1687  
*Symbol:* ESA-TSE-96-060  
*Date:* May 20, 1996

**Subject: LOW LEVEL RADIOACTIVE WASTE DRUMS AT TSFF**

Attached is the required documentation for disposal of the waste drums currently being held on the back loading dock of the Tritium Science and Fabrication Facility (TSFF).

As requested we have provided a statement from a subject matter expert attesting to knowledge of process. In addition we had the drums radiographed by personnel from ESA-MT and have those x-rays in our file. We are providing you with a listing of contents for each of the eight drums as viewed on the x-rays. The films indicate that there are no free liquids, pressurized cylinders, or hazardous waste in the drums.

At your convenience could you please get together with Luan Walker to begin the paperwork process.

**Distribution:**

Terry Buxton, ESA-TSE, C-348  
Luan Walker, ESA-TSE, C-348  
Kandy Frame, ESA-TSE, C-348  
Ed Harvey, ESA-TSE, C348  
ESA-TSE File

**Los Alamos**  
NATIONAL LABORATORY  
**memorandum**

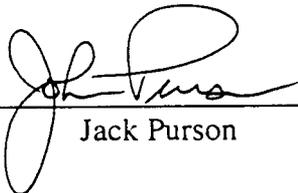
*Engineering Sciences and Applications*  
ESA-TSE, Tritium Science and Engineering

To/MS: Mary Martinez, ESA-FM, D-471  
From/MS: John Purson, C-348  
Thru Henry Horak, C-348  
Phone/FAX: 665-2386/FAX 665-1687  
Symbol: ESA-TSE-96-058  
Date: May 20, 1996

**Subject: LOW LEVEL RADIOACTIVE WASTE DRUMS AT TSFF**

DOE Order 5820.2A describes the waste characterization requirements for radioactive wastes. It allows the use of acceptable knowledge (AK) for this characterization. The purpose of this memo is to apply that policy to 8 steel drums of Low Level Radioactive waste. The drums were packaged prior to July 1993 and are stored outside TSFF at TA-21-209. Due to personnel changes I am the remaining Subject Matter Expert (SME) on the contents of these drums. I know the drums were packed in accordance with the EM-7 Waste Acceptance Criteria in effect at that time. The contents are non-compatible, tritium contaminated, parts and equipment which supported the NTS Saltline Glovebox in The Tritium Salt Facility (TSF). TSF is now the Tritium Science and Fabrication Facility (TSFF). I was the TSF Supervisor during the time the drums were filled, however I have been reassigned and Henry (Lou) Horak is now the TSFF Supervisor.

I certify that the only known radionuclide is tritium. The quantity in each drum is probably less than 100 curies and more likely less than 10 curies per drum. No free liquids and no RCRA waste were packaged in the drums. The oil was drained out of equipment prior to disposal in the drums.

  
\_\_\_\_\_  
Jack Purson  
5/20/96  
Date

**DISTRIBUTION**

Terry Buxton, ESA-TSE, C-348  
Luan Walker, ESA-TSE, C-348  
Kandy Frame, ESA-TSE, C-348  
Ed Harvey, ESA-TSE, C-348  
ESA-TSE File

5 DRUMS

**Los Alamos**  
NATIONAL LABORATORY  
**memorandum**

*Engineering, Sciences, and  
Applications*  
ESA-TSE, Tritium Science and  
Engineering

To/MS: Mary Martinez, ESA-FM, D-471\*  
Thru: Lou Horak, C-348  
From/MS: John Purson, C-348  
Phone/FAX: 665-2386/665-1687  
Symbol: ESA-TSE-96-078  
Date: June 20, 1996

SUBJECT: LOW LEVEL RADIOACTIVE WASTE DRUMS AT TSFF

It is my understanding that NMED during its annual inspection has requested information regarding waste characterization on five drums located inside of TSFF, TA-21-209. I can address 3 of those drums.

DOE Order 5820.2A describes the waste characterization requirements for radioactive wastes. It allows the use of acceptable knowledge (AK) for this characterization. The purpose of this memo is to apply that policy to 3 steel drums of Low Level Radioactive waste. The 3 drums are identified as follows:

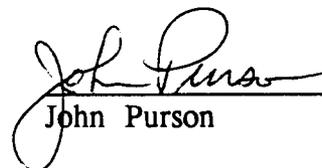
ACCT 225, MT 87-MS Waste, that contains molecular sieve in one gallon paint cans suspended in asphalt within the 55-gallon outer drum.

ACCT 225, MT 87-ETS-7B and ACCT 225, MT 87-ETS-6C each contain molecular sieve in a 30-gallon mild steel drum. The annular space between the inner (30-gallon) and the outer (55-gallon) drums is filled with asphalt.

All three of the above items are destined to be overpacked in torpedo tubes for disposal.

Due to personnel changes I am the remaining Subject Matter Expert (SME) on the contents of these drums. I know the drums were packed in accordance with the EM-7 Waste Acceptance Criteria in effect at that time. I was the TSF Supervisor during the time the drums were filled, however I have been reassigned and Henry (Lou) Horak is now the TSFF Supervisor.

I certify that the only known radionuclide is tritium. No free liquids and no RCRA waste were packaged in the drums.

  
John Purson  
Date 6/20/96

**DISTRIBUTION**

Terry Buxton, ESA-TSE, C-348  
Luan Walker, ESA-TSE, C-348  
Kandy Frame, ESA-TSE, C-348  
Ed Harvey, ESA-TSE, C-348  
ESA-TSE File

**Los Alamos**  
NATIONAL LABORATORY  
**memorandum**

*Engineering, Sciences, and Applications*  
ESA-TSE, Tritium Science and Engineering

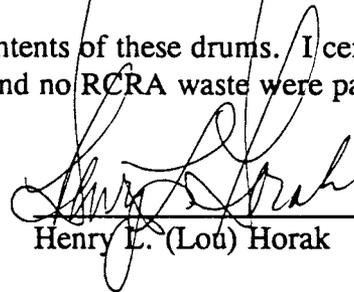
To/Ms: Mary Martinez, ESA-FM, D-371  
From/Ms: Lou Horak, C-348  
Phone/FAX: 667-5768/665-1687  
Symbol: ESA-TSE-96-077  
Date: June 20, 1996

SUBJECT: LOW LEVEL RADIOACTIVE WASTE DRUMS AT TSFF

It is my understanding that NMED during its annual inspection has requested information regarding waste characterization on five drums located inside of TSFF, TA-21-209. I can address 2 of those drums.

DOE Order 5820.2A describes the waste characterization requirements for radioactive wastes. It allows the use of acceptable knowledge (AK) for this characterization. The purpose of this memo is to apply that policy to two steel drums of Low Level Radioactive Waste. The first drum is identified as ACCT 225, MT 87-ECS-5. This drum is labeled 003. It contains a custom stainless steel dryer tower (tubular container) containing molecular sieve. This item was originally at TA-33-86. Waste profile #24074 describes this type of item. Currently the operating group is determining if the tritium should be recovered or if the contents should be overpacked into torpedo tubes for burial. The second unmarked drum is empty. This drum may be used as a shipping container in the future.

I am the Subject Matter Expert (SME) on the contents of these drums. I certify that the only known radionuclide is tritium. No free liquids and no RCRA waste were packaged in the drums.

  
Henry L. (Lou) Horak

6/25/96  
Date

**DISTRIBUTION**

Terry Buxton, ESA-TSE, C-348  
Luan Walker, ESA-TSE, C-348  
Kandy Frame, ESA-TSE, C-348  
Ed Harvey, ESA-TSE, C-348  
ESA-TSE File

LOS ALAMOS NATIONAL LABORATORY  
WASTE PROFILE SYSTEM

WPF #: 24074

07-Jun-1996 01:11 AM

(Version: 1)

p.3

Activation Date : 06-JUN-96  
Generator : HORAK, HENRY LOUIS  
WMC : MARTINEZ, MARY I. A.  
From : ART, KELLIE  
Subject : WASTE PROFILE FORM (WPF)

Expiration Date : 06-JUN-97  
MS : C348  
MS : C928

The Customer Service Team has reviewed and logged the information you have provided on the attached WPF(s). Based on the information you provided, your waste is classified as:

**LOW LEVEL RADIOACTIVE WASTE**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same and the generator remains the same. Should your waste or generator change, please submit a new WPF to CST Customer Service, and attach a copy of the WPF which is being replaced.

***PLEASE RETAIN THE ATTACHED  
WASTE PROFILE FORM FOR YOUR FILES***

**LOS ALAMOS NATIONAL LABORATORY  
WASTE PROFILE SYSTEM**

WPF #: 24074

07-Jun-1996 01:11 AM

(Version: 1)

p. 1

Generator: **HORAK, HENRY LOUIS** MS : C348 PH : 75768 Z#: 076175  
 WMC: **MARTINEZ, MARY I. A.** MS : C928 PH : 76439 Z#: 095492  
 CSR: **ART, KELLIE** MS : J593 PH : 75909 Z#: 112794  
 Status: **ACTIVE** Activation Date : **06-JUN-96** Expiration Date: **06-JUN-97**

Group : **ESATSE** TA : **33** Bldg : **000086** Room: **0**

RMMA : **RADIOACTIVE MATERIALS MANAGEMENT AREA (RMMA) 33001**

Waste Accumu : N/A

Method of Char : **KNOWLEDGE OF PROCESS (KOP)**

Waste Type : **PROCESS WASTE/SPENT CHEMICAL**

Waste Classes: **ON-GOING GENERATION  
RADIOACTIVE**

Assoc Docum: N/A

Waste Category: **NOT APPLICABLE**

Waste Sources : **DECON/DECOM  
MATERIAL PROCESSING  
RESEARCH AND DEVELOPMENT**

Waste Matrix : **SOLID**

Matrix Type : **HOMOGENEOUS**

Waste/Proc Desc : **TRITIATED WATER (HTO, DTO) PHYSICALLY ABSORBED ON SYNTHETIC ZEOLITE  
(MOLECULAR SIEVE), TYPES 4A, 5A, & 13X.**

Ignitability : **NOT IGNITABLE**

Corrosivity : **NOT AQUEOUS**

Reactivity : **NON REACTIVE**

Boiling Point : **NOT APPLICABLE**

Toxicity Characteristic Metals : N/A

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants :

Constituent	CAS NO	MIN	MAX	UOM
<b>PUMP OIL (ABSORBED ON ZEOLITE)</b>		<b>0</b>	<b>.1</b>	<b>%</b>
<b>SYNTHETIC ZEOLITE (SOLID)</b>		<b>95</b>	<b>100</b>	<b>%</b>
<b>TRITIATED WATER (ABSORBED ON ZEOLITE)</b>		<b>0</b>	<b>5</b>	<b>%</b>

Radiological Characteristics :

Radionuclide	Min	Max	Unit
<b>H3</b>	<b>0.000E+00</b>	<b>9.664E+03</b>	<b>CIG</b>

Rad Contamination Type : **SURFACE CONTAMINATION  
VOLUME CONTAMINATION**

Waste Water Contaminants : N/A

LOS ALAMOS NATIONAL LABORATORY  
WASTE PROFILE SYSTEM

WPF #: 24074

07-Jun-1996 01:11 AM

(Version: 1)

p.2

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **Low Level Rad**

RCRA Category : **Non-hazardous Waste**

Misc. Category : N/A

Waste Classification : **LOW LEVEL RADIOACTIVE WASTE**

EPA Hazardous Waste Code : N/A

Account Information

For rapid processing, complete all sections in black or blue ink and mail this form to Waste Services Group at MS J579

Reference Number

Waste Generator's Name (Print) <u>Henry Louis Hozak</u>	Znumber <u>076175</u>	Waste Management Coordinator's Name (Print) <u>Wayne A. Hat</u>	Znumber <u>095492</u>
--	--------------------------	--	--------------------------

Generator's Group <u>ESA-TSE</u>	Generator's Telephone <u>7-5768</u>	Generator's Mail Stop <u>C348</u>	Waste Stream Technical Area <u>33</u>	Building <u>86</u>	Room
-------------------------------------	--	--------------------------------------	--	-----------------------	------

Waste Accumulation  
Check as many as apply.

Satellite accumulation area --> site no.: \_\_\_\_\_  
 Less than 90 day accumulation area --> site no.: \_\_\_\_\_  
 Radioactive Materials Management Area (RMMA) --> site no.: 33-001  
 None of the above

Method of Characterization  
Check as many as apply.

Acceptable Knowledge (AK)  
 Analysis attached --> sample/request no. \_\_\_\_\_  
 MSDS attached  
 Request for analysis

Section 1- Chemical and Physical Characteristics

For help in completing this section of the form, call 5-WAST or 5-4000.

<p><b>Waste Type</b> Check only one.</p> <p> <input type="checkbox"/> Unused/unspent chemical <i>Check Waste Classes and Associated Documentation Only</i>  <input checked="" type="checkbox"/> Process waste/spent chemical <i>Complete all of Section 1.</i> </p> <p><b>Waste Classes</b> Check as many as apply.</p> <p> <input checked="" type="checkbox"/> On-going generation  <input type="checkbox"/> One-time generation  <input checked="" type="checkbox"/> Radioactive (complete Sec. 2)  <input type="checkbox"/> Non-radioactive  <input type="checkbox"/> Wastewater (complete Sec. 3)  <input type="checkbox"/> Classified/Sensitive                 </p> <p><b>Associated Documentation</b> Check as many as apply.</p> <p> <input type="checkbox"/> Process SOP --&gt; no.: _____  <input type="checkbox"/> RMMA OP --&gt; no.: _____  <input type="checkbox"/> WM SOP --&gt; no.: _____  <input type="checkbox"/> Other --&gt; _____  <input checked="" type="checkbox"/> None --&gt; describe below                 </p>	<p><b>Waste Category</b> Check as many as apply.</p> <p> <input type="checkbox"/> Solvent  <input type="checkbox"/> Degreaser  <input type="checkbox"/> Dioxin  <input type="checkbox"/> Electroplating  <input type="checkbox"/> Treated hazardous waste residue  <input type="checkbox"/> Explosive process waste  <input type="checkbox"/> Infectious/biological waste  <input type="checkbox"/> Beryllium  <input type="checkbox"/> Asbestos-friable  <input type="checkbox"/> Asbestos-nonfriable  <input type="checkbox"/> Empty containers  <input type="checkbox"/> PCB (&lt;50 ppm)  <input type="checkbox"/> PCB (50 - 500 ppm)  <input type="checkbox"/> PCB (&gt; 500 ppm)  <input type="checkbox"/> id. no.: _____  <input checked="" type="checkbox"/> Not applicable --&gt; describe below                 </p>	<p><b>Waste Sources</b> Check as many as apply.</p> <p> <input checked="" type="checkbox"/> Research and development  <input type="checkbox"/> Maintenance  <input type="checkbox"/> Construction  <input checked="" type="checkbox"/> Material processing  <input checked="" type="checkbox"/> Decon/decom  <input type="checkbox"/> Investigation derived  <input type="checkbox"/> Remediation  <input type="checkbox"/> UST - petroleum  <input type="checkbox"/> UST - non-petroleum  <input type="checkbox"/> Generator treatment  <input type="checkbox"/> Interim/permitted treatment  <input type="checkbox"/> Industrial sludge  <input type="checkbox"/> Sanitary sludge  <input type="checkbox"/> Abatement                 </p>	<p><b>Waste Matrix</b> Check only one.</p> <p>Gas</p> <p> <input type="checkbox"/> ≤ 1.5 Atmospheres  <input type="checkbox"/> &gt; 1.5 Atmospheres                 </p> <p>Liquid</p> <p> <input type="checkbox"/> Aqueous  <input type="checkbox"/> Organic  <input type="checkbox"/> Inorganic                 </p> <p>Solid</p> <p> <input type="checkbox"/> Powder/ash  <input checked="" type="checkbox"/> Solid  <input type="checkbox"/> Absorbed liquid                 </p> <p><b>Matrix Type</b> Check only one.</p> <p> <input checked="" type="checkbox"/> Homogeneous  <input type="checkbox"/> Heterogeneous --&gt; describe below                 </p>
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Waste/Process Description

Irradiated water (H<sub>2</sub>O, D<sub>2</sub>O) physically absorbed on synthetic zeolite (molecular sieve), types 4A, 5A, 13X.

## Section 1 - Chemical and Physical Characteristics (continued)

<b>Ignitability (degrees F.)</b> Check only one. <ul style="list-style-type: none"> <li><input type="checkbox"/> &lt; 73</li> <li><input type="checkbox"/> 73-99</li> <li><input type="checkbox"/> 100-139</li> <li><input type="checkbox"/> 140-200</li> <li><input type="checkbox"/> &gt; 200</li> <li><input type="checkbox"/> Ignitable solid</li> <li><input type="checkbox"/> DOT oxidizer</li> <li><input checked="" type="checkbox"/> Not ignitable</li> </ul>	<b>Corrosivity (pH)</b> Check only one. <ul style="list-style-type: none"> <li><input type="checkbox"/> ≤ 2.0</li> <li><input type="checkbox"/> 2.1-4.0</li> <li><input type="checkbox"/> 4.1-6.0</li> <li><input type="checkbox"/> 6.1-9.0</li> <li><input type="checkbox"/> 9.1-12.4</li> <li><input type="checkbox"/> ≥ 12.5</li> <li><input type="checkbox"/> Liquid corrosive to steel</li> <li><input checked="" type="checkbox"/> Not aqueous</li> </ul>	<b>Reactivity</b> Check as many as apply. <ul style="list-style-type: none"> <li><input type="checkbox"/> Unstable</li> <li><input type="checkbox"/> Water reactive</li> <li><input type="checkbox"/> Pyrophoric</li> <li><input type="checkbox"/> Cyanide bearing</li> <li><input type="checkbox"/> Sulfide bearing</li> <li><input type="checkbox"/> Shock sensitive</li> <li><input type="checkbox"/> Explosive - class _____</li> <li><input checked="" type="checkbox"/> Non-reactive</li> </ul>	<b>Boiling Point (degrees F.)</b> Check only one. <ul style="list-style-type: none"> <li><input type="checkbox"/> ≤ 95</li> <li><input type="checkbox"/> &gt; 95</li> <li><input checked="" type="checkbox"/> Not applicable</li> </ul>
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Identify presence of contaminants.	Minimum	Maximum	Unit (ppm or % only)	Analytical method
<b>Toxicity Characteristic Metals</b>				
Arsenic	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Barium	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Cadmium	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Chromium	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Lead	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Mercury	<input type="checkbox"/> None	<input type="checkbox"/> < 0.2 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Selenium	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Silver	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
<b>Toxicity Characteristic Organic Compounds</b>				
Benzene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Carbon tetrachloride	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Chlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Chloroform	<input type="checkbox"/> None	<input type="checkbox"/> < 6.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Cresol	<input type="checkbox"/> None	<input type="checkbox"/> < 200.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
1,4-dichlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 7.5 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
1,2-Dichloroethane	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
1,1-Dichloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.7 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
2,4-Dinitrotoluene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.13 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Hexachlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.13 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Hexachlorobutadiene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Hexachloroethane	<input type="checkbox"/> None	<input type="checkbox"/> < 3.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Methyl ethyl ketone	<input type="checkbox"/> None	<input type="checkbox"/> < 200.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Nitrobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 2.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Pentachlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Pyridine	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Perchloroethylene or tetrachloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.7 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Trichloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
2,4,5-Trichlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> < 400.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
2,4,6-Trichlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> < 2.0 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Vinyl chloride	<input type="checkbox"/> None	<input type="checkbox"/> < 0.2 ppm	_____ to _____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total

**Additional Chemical Constituents and Contaminants (for hazardous constituents, see AR 10-3, Appendix A)**  
 List all other constituents (including inerts) not identified above and attach any applicable analyses.

Name of constituent	Cas no. (optional)	Minimum	Maximum	Unit (ppm or % only)
• pump oil (absorbed on zeolite)	_____	0	to 0.1	%
synthetic zeolite (solid)	_____	95	to 100	%
• treated water (absorbed on zeolite)	_____	0	to 5	%
_____	_____	_____	_____ to _____	_____
_____	_____	_____	_____ to _____	_____
_____	_____	_____	_____ to _____	_____
_____	_____	_____	_____ to _____	_____
_____	_____	_____	_____ to _____	_____



### Section 3 - Wastewater Characteristics

*For help in completing this section of the form, call 7-4301.*

Identify presence of contaminants		Minimum	Maximum	Unit (ppm or % only)	Analytical method
Aluminum	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Boron	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Cobalt	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Copper	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Vanadium	<input type="checkbox"/> None	<input type="checkbox"/> < 0.10 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total
Zinc	<input type="checkbox"/> None	<input type="checkbox"/> < 95.4 ppm	_____ to _____	_____	<input type="checkbox"/> TCLP <input type="checkbox"/> Total

Maximum daily flow when discharge occurs: _____ <input type="checkbox"/> Gallons <input type="checkbox"/> Liters	Average daily flow when discharge occurs: _____ <input type="checkbox"/> Gallons <input type="checkbox"/> Liters
---	---

Estimated number of days per year that discharge will occur: \_\_\_\_\_

Estimated total volume per year discharged to the Radioactive Liquid Waste Collection System at TA-50-1: \_\_\_\_\_  
 Gallons  Liters

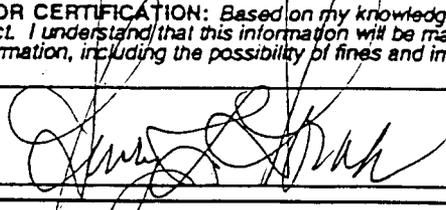
For TA-55 use only. Wastewater will be discharged through one of the following:

Acid line                       Caustic line                       Industrial waste line

### Section 4 - Additional Information

*If additional information is available on the chemical, physical, or radiological character of the waste not covered on this form, provide it below.*

**WASTE GENERATOR CERTIFICATION:** Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: 	Date: 5/29/96
--	---------------

## **REQUEST FOR INFORMATION #1**

**For further information regarding this material, please call:  
Michelle Cash, ESH-19  
665-0223**

## REQUEST FOR INFORMATION #1

### DESCRIPTION:

On June 13, 1996, the New Mexico Environment Department (NMED), Hazardous and Radioactive Materials Bureau (HRMB), closed out their annual Hazardous Waste Act (HWA) inspection by communicating concerns that were observed by NMED inspectors. NMED noted 7 apparent findings and made 2 requests for information. In attendance were representatives from NMED, Department of Energy (DOE), University of California (UC), and Los Alamos National Laboratory (LANL) subcontractors.

### Request for Information #1 Description:

The NMED inspectors requested information describing the procedures which will be followed by LANL to segregate a waste contained in a <90 day storage area, in TA-50-1, room 34B, LANL site ID number 1333.

### Los Alamos National Laboratory's Response:

The container in question, ID #C96065670, is a B-25 standard waste box (type SEG-45) provided to LANL by the Scientific Ecology Group, Inc. (SEG). It contains material associated with the decommissioning of outdated laboratory facilities at TA-21. This material consisted of miscellaneous solid wastes and construction/demolition materials, which included a laboratory hood and a vacuum pump contaminated with mercury. Because of the laboratory's location and former activities, this box of waste material was being managed as solid low-level radioactive waste in accordance with DOE and LANL policy (although radiation survey measurements of the waste indicated no detectable activity above background when the box was closed and transferred to TA-50).

Because of the presence of mercury-containing items, and the possibility of mercury (Hg) contamination being released to other materials in the waste box, the entire contents were being managed as mixed waste prior to shipment to TA-50 and while within the TA-50-1 <90 day storage area.

The container was shipped to TA-50 from TA-21 on June 6, 1996, under manifest. The purpose of the shipment was to separate hazardous waste from nonhazardous solid radioactive waste components in the box, thereby minimizing the generation of both mixed waste and low-level solid waste prior to disposal (the two projected output streams from the separation process). Such an operation must be performed by trained personnel in a controlled environment within the TA-50-1 decontamination facility.

Because this container could not physically fit into the available space in the interim status storage area nearest to the decontamination facility (site ID #348), a decision was made to stage the container within the <90 day storage area within the decontamination facility for waste separation. This is where the container was located at the time of the NMED inspection.

### Description of Planned Activity

All work is going to be conducted within the <90 day storage area. This <90 day storage area at the TA-50 facility is the only LANL location which utilizes personnel trained to segregate mixed waste contaminated with Hg. The contents of the SEG container which may contain Hg residues include a Hg diffusion pump and a "California Hood". The TA-

50 team will inspect the contents, segregate Hg from other solid waste in the box, and repackage the contents (as low-level solid waste and Hg contaminated mixed waste) following separation.

The procedures and protective equipment required for this operation will vary based on the results of the monitoring of the container for any Hg gases when it is cracked open. If the monitoring results indicate the presence of Hg, the operators will be required to wear Hg/HEPA respirators while performing any work activity. Each worker will wear anticontamination (ANTI-C) clothing which includes gloves, coveralls, and booties.

The work procedures include the emptying of the SEG container and inspecting each piece for the presence of Hg. If Hg is identified on the equipment, it will be decontaminated using a commercially-available Hg spill kit. Once each piece of equipment is decontaminated, it will be placed in a new container and marked as non-hazardous, radioactive waste. The material generated in the clean-up process will be placed in a new waste container and labeled as mixed (hazardous) waste. Upon the completion of the project, all waste streams will be profiled, and appropriate paperwork will be generated to dispose of the waste output streams as radioactive mixed waste and low-level radioactive waste, respectively.

All necessary permits have been obtained from LANL's ESH-1 (Radiological Work Permit) and ESH-5 (Hg safety Permit) Groups, and thus the segregation operation may commence as soon as NMED indicates that it has no additional concerns with the proposed activity as described herein. It is suggested that unless NMED indicates otherwise, LANL would perform separation activities during the week of July 15, 1996.

## **REQUEST FOR INFORMATION #2**

**For further information regarding this material, please call:  
Michelle Cash, ESH-19  
665-0223**

## REQUEST FOR INFORMATION #2

### DESCRIPTION:

On June 13, 1996, the New Mexico Environment Department (NMED), Hazardous and Radioactive Materials Bureau (HRMB), closed out their annual Resource Conservation and Recovery Act (RCRA) inspection by communicating concerns that were observed by NMED inspector. NMED noted 7 apparent findings and 2 requests for information. In attendance were representatives from NMED, Department of Energy (DOE), University of California (UC) and Los Alamos National Laboratory (LANL)

### Request for Information #2 Description:

NMED indicated that Technical Area (TA) 3-2133 (site id #524), a <90 day storage area, was storing 8 cans of paint, seven of which appeared to be not properly labeled. More information was requested on the status and nature of the paint cans.

### Los Alamos National Laboratory's Response:

These 8 cans of paint have been removed from the <90 day storage area because a use has been found for them and they no longer need to be disposed of. The 8 cans of paint that were being stored were all the same brand and had a MSDS printed on the product label of each can. The paint was placed in the <90 day storage area with the appropriate disposal form pending a decision on its possible disposal and/or use, while the Waste Management Coordinator gathered information on the paint (e.g., whether the age of the paint exceeded its shelf life, spec/MSD sheets, etc.). After the information was gathered and it was determined that the paint, a special epoxy paint, still had a useful life, a Lab user group, Space Engineering (NIS-4) came forward and identified a need for the paint in connection with a project that is to be done for the Hanford site. The paint has been removed from the <90 day storage area and put into NIS-4's paint inventory. The paint is not waste; it is a useful product with an identified need.