



Laboratory Counsel General Law

P.O. Box 1663, MS: A187

Los Alamos, New Mexico 87545

(505) 667-3766/Fax (505) 665-4424

Date: November 7, 2001

HAND DELIEVERED

Tannis Fox, Esq.
Assistant General Counsel
New Mexico Environment Department
P.O. Drawer 26110
Santa Fe, NM 87502-6110

RE: Compliance Order 99-03 Response to Request for Additional Information

Dear Ms. Fox,

Enclosed please find the original affidavits of Stephanie Archuleta, Richard Carlson, Sean French, Brady Means and Barbara Smith. These affidavits are provide in response to the New Mexico Environment Department's request for additional information regarding various finding cited in Compliance Order 99-03 relating to the 1997 RCRA inspection of Los Alamos National Laboratory. In addition, also enclosed are five Hazardous and Mixed Waste Facility Inspection Record Forms for inspections at TA-54 Area L relating to the issue in the affidavits Brady Means and Sean French.

I have enclosed an additional set of copies of the above referenced documents for Ms. Brinkerhoff.

Should you have any questions regarding these documents do not hesitate to contact Ellen Louderbough. Ellen will back in the office the week of November 19th.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Thayer'.

S. Catherine Thayer
Environmental Paralegal

SCT/

Cc: B. Osheim, DOE/LAAO, MS-A-316
Records Room
LC/GL File



16773

**STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT**

**IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515**

**COMPLIANCE ORDER
HRM-99-03(CO)
(1997 Inspection)**

AFFIDAVIT

1) I, Stephanie A. Archuleta, am an employee of the University of California at Los Alamos National Laboratory (LANL).

2) I have been employed at LANL as a contractor or UC employee since September 1988.

3) I am aware of the statements contained in finding number 14 and conclusion of law number 7 of the New Mexico Environment Department's (NMED) Compliance Order NMHWA 99-03.

4) At the time of the 1997 inspection I was ESH-Generalist with Physics Facility Management (P-FM).

5) After joining the P-FM in the spring of 1997 I asked my the facility manager about the status of the TA-3 Ion Beam Facility (IBF) and was told that the Physics Division Office made a decision to put the IBF into an operational stand-by mode after the tenant organization determined it could no longer fund operational costs and the space tax.

6) On information and belief the IBF was at all times under the management and control of P-FM.

7) In 1997 the IBF was in deactivated status with all primary experimental equipment left in place so as to be operationally ready when needed.

8) All hazardous waste had been removed from the IBF < 90-day storage area(s) and Satellite Accumulation Area(s) and they were closed when I arrived at P-FM.

9) In late spring of 1997, the Physics Division Office determined it would not reoccupy the space and that the facility was excess to the Division's programmatic mission.

10) As the ESH-Generalist for P-FM, I was tasked to begin close-out activities which became the IBF Safe Shutdown Plan.

11) As part of the Safe Shutdown I initiated a chemical inventory to identify products that could be used by other groups within the Division.

12) I worked with the CHEAPER program (EM-SWO), the ACIS program (ESH-5), the DARHT Project, to transfer materials on-site and off-site (to organizations such as Lawrence Berkeley Laboratory, Yale University and the University of Florida) to programs that could use chemical products and equipment from the IBF.

13) All chemical product that could not be transferred to new owners or otherwise recycled were disposed of as waste.

14) Other equipment was excessed through standard DOE processes.

15) The close-out activities were completed by P-FM in 1999.

16) The building is currently in excess status under the control of FWO Division.

FURTHER AFFIANT SAYETH NAUGHT.


Stephanie A. Archuleta

STATE OF NEW MEXICO)
) ss.
COUNTY OF LOS ALAMOS)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me this 12th day of October, 2001, by Stephanie A. Archuleta.


NOTARY PUBLIC

My Commission Expires:

May 25, 2002

**STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT**

**IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515**

**COMPLIANCE ORDER
HRM-99-03(CO)
(1997 Inspection)**

AFFIDAVIT

1) I, Richard V. Carlson, am an employee of the University of California at Los Alamos National Laboratory (LANL).

2) I have been employed by LANL since 1975.

3) I am with the Tritium Science and Engineering Group.

4) I am aware of the statements contained in finding number 30 and conclusion of law number 9 of the New Mexico Environment Department's (NMED) Compliance Order NMHWA 99-03.

5) At the time of the 1997 NMED inspection the titanium metal located at TA-21 Building 209 was commercial product.

6) The titanium metal was in the original shipping drum.

7) The titanium metal was properly labeled and had the appropriate Material Safety Data Sheet with the drum.

8) The titanium is used for two operations: 1) collection of impure gases to maintain an ultra pure glovebox atmosphere; and, 2) as a solid storage material for hydrogen isotopes.

9) To create an ultra pure helium glovebox atmosphere, the titanium is placed in a titanium furnace adjacent to the glovebox. The furnace is approximately two cubic feet in size. The helium gas in the glovebox is forced through the furnace where the heated titanium captures impurities from the helium. The pure helium is returned to the glovebox.

10) The furnace has been used for this type of operation from 1974 to 1996.

11) The furnace was last used approximately 5 years ago.

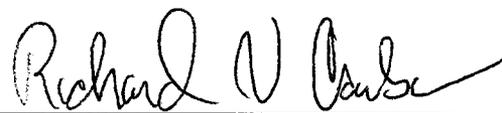
13) An air permit is not required for this operation because neither the furnace nor the glovebox emit gases or particulates. The process is a closed system.

14) The titanium in the furnace was last replaced around 1990.

15) The titanium product remains at TA-21, Building 209. We are currently shutting down the tritium facilities at TA-21, and may use the titanium for storage of tritium during the shutdown.

16) After completing the shutdown of the tritium facilities, titanium no longer needed to support operations at TA-21 will be moved to TA-16, for use in the future to store hydrogen and/or the gettering of selected gases.

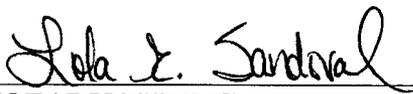
FURTHER AFFIANT SAYETH NAUGHT.



Richard V. Carlson

STATE OF NEW MEXICO)
) ss.
COUNTY OF LOS ALAMOS)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me this 1st day of November, 2001, by Richard V. Carlson.


NOTARY PUBLIC

My Commission Expires:

December 24, 2001

STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT

#40
Trenke Sanchez

IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515

COMPLIANCE ORDER
HRM-99-03(CO)
(1997 Inspection)

AFFIDAVIT

1) I, Sean B. French, am an employee of the University of California at Los Alamos National Laboratory (LANL).

2) I have been employed at LANL since June of 1994.

3) I am aware of the statements contained in finding number 77 and conclusion of law number 40 of the New Mexico Environment Department's (NMED) Compliance Order NMHWA 99-03.

4) During the 1997 inspection of TA-54 by the NMED, I was the Team Leader for a group of LANL environmental professionals tasked with accompanying NMED inspectors during their visit and responding to their requests for information.

5) On July 9, 1997, one of the individuals on my team, who has since left LANL, accompanied John Tymkowych when he inspected the containers stored at TA-54, Area L, Dome 215 on July 9, 1997, this individual reported to me that Mr. Tymkowych had walked through the dome and looked at all of the containers stored there.

6) This individual also informed me that during his inspection of Dome 215, Mr. Tymkowych requested the following information: 1) the Waste Data Form and Waste Profile Form (24069) for container 91003413; 2) the date of receipt for container C97077182; 3) the date when waste was transferred from seven 350-gallon tuff tanks (C97077179 - C97077184 and C97077188) into 55-gallon drums; and, 4) the waste generation history of a 5-gallon bucket of waste documented on Waste Profile Form 21453. The individual reported to me that all the requested information had been provided to Mr. Tymkowych.

7) At no time during or after the inspection of Dome 215 did Mr. Tymkowych express, to me or anyone on my team, any concerns regarding the labels on any of the drums being faded, illegible and/or incomplete.

8) At no time during or after the inspection of Dome 215 did Mr. Tymkowych question accumulation start dates for any of the containers in the Dome.

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**STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT**

**IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515**

**COMPLIANCE ORDER
HRM-99-03(CO)
(1997 Inspection)**

AFFIDAVIT

- 1) I, Brady K. Means, am an employee of the University of California at Los Alamos National Laboratory (LANL).
- 2) I have been employed by LANL since 1984.
- 3) I have performed RCRA inspections at TA-54 Area L since 1993.
- 4) I am aware of the statements contained in finding number 77 and conclusion of law number 40 of the New Mexico Environment Department's (NMED) Compliance Order NMHWA 99-03.
- 5) I am the LANL TA-54 inspector who inspected TA-54 Area L on or about the week of April 14 through April 18, 1997 and subsequent weeks.
- 6) I recorded inspection findings on a Hazardous and Mixed Waste Facility Inspection Record Form (IRF) during each inspection I made, and did so in April 1997.
- 7) The April 14 through April 18, 1997, IRF references a number of items known as "action required" (AR). AR 2 reads, "labels on secondary waste generated by mixed waste SSD project are faded, illegible and incomplete." AR 3 reads, "labels on some drums of secondary waste generated by mixed waste SSD project are missing accumulation start dates".
- 8) It is an has been the practice at Area L to affix DOT hazard class labels on each drum of RCRA regulated waste, or to include on the RCRA label the DOT hazard class information for the waste in the drum. The DOT hazard class information is used to appropriately segregate waste drums.
- 9) AR2 and AR3 were resolved by working with staff who had access to the necessary information regarding the contents of the drums and the accumulation start dates.

FURTHER AFFIANT SAYETH NAUGHT.

Brady K. Means
Brady K. Means

STATE OF NEW MEXICO)
) ss.
COUNTY OF LOS ALAMOS)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me this 01 day of ~~October~~^{Nov}, 2001, by Brady K. Means.

Leyre Herrera
NOTARY PUBLIC

My Commission Expires:

Feb 14-2004

HAZARDOUS AND MIXED WASTE FACILITY INSPECTION RECORD FORM

FACILITY TA 54 Area L	<input type="checkbox"/> 48 DAY GENERATOR STORAGE <input checked="" type="checkbox"/> TREATMENT, STORAGE, DISPOSAL	START DATE 4-14-97	END DATE 4-18-97		
<input checked="" type="checkbox"/> Containers	<input type="checkbox"/> Landfill	<input type="checkbox"/> Surface Impoundment	<input type="checkbox"/> Waste Pile	<input type="checkbox"/> Thermal Treatment	<input type="checkbox"/> Chem/Physical Treat
<input type="checkbox"/> Incinerator	<input type="checkbox"/> Misc. Unit	<input type="checkbox"/> Tank	<input type="checkbox"/> UST	<input type="checkbox"/> Land Treatment	<input type="checkbox"/> Underground Inj.

PART I - Enter condition of item inspected (OK or AR*) in column for day inspected.

ITEM	INSPECTED FOR	SUN	MON	TUE	WED	THU	FRI	SAT
6 NO USE	CHECK IF NO WASTE IS PRESENT	NA	NA	NA	NA	NA	NA	NA
7 (UN)LOADING AREA TANKS/CONTAINERS	SPILLS AND DETERIORATION		OK	OK	OK	OK	OK	
8 COMMUNICATION EQUIPMENT (PHONE/RADIO/ALARMS)	PROPERLY FUNCTIONING		OK	OK	OK	OK	OK	
9 TANKS (ALL ABOVE GROUND PORTIONS) MONITORING DATA	DISCHARGE CONTROLS CONDITION, LEAKS, LEVEL (6" FREEBOARD), CORROSION		NA	NA	NA	NA	NA	
10 SURFACE IMPOUNDMENTS AND CONTAINMENT	FREEBOARD (2 ft) SUDDEN DROPS IN LEVEL		NA	NA	NA	NA	NA	
11 PORTA BERM	LEAKS, CONDITION		NA	NA	NA	NA	NA	
12 EYE WASH SAFETY SHOWERS	LEAKS, FUNCTIONING		AR	AR	AR	AR	OK	
13 STRUCTURAL INTEGRITY OF CONTAINERS/TANKS, VALVES, PIPES, AND FLANGES	DETERIORATION AND LEAKS, CORROSION, DAMAGE		OK	OK	OK	OK	OK	
14 COVER/LID OF CONTAINERS	CLOSED AND SECURED		OK	OK	OK	OK	OK	
15 WARNING SIGNS	POSTED & READABLE (BILINGUAL)		OK	OK	OK	OK	OK	
16 LABELS	"HAZARDOUS WASTE" PRESENT ON ALL CONTAINERS/TANKS		AR ₂					
17 ACCUMULATION START DATE	PRESENT ON ALL CONTAINERS, TANKS, NONE EXCEED TIME RESTRICTIONS		AR ₃					
18 RUN ON/OFF CONTROL (AREA L, G, H, F) LANDFILLS, DETONATION PADS	INTEGRITY, EROSION, FONDING		OK	OK	OK	OK	OK	
19 COVER INTEGRITY (AREA L, G, H, F) LANDFILLS	EROSION, SUBSIDENCE, WATER INTRUSION		NA	NA	NA	NA	NA	
20 SECURITY	CONDITION, FENCE/GATES/LOCKS		OK	OK	OK	OK	OK	
21 SITE LIGHTING	FUNCTIONS PROPERLY		OK	OK	OK	OK	OK	

Attachment 8-1

Hazardous and Mixed Waste Facility Inspection Record Form

November 14, 1994

HAZARDOUS AND MIXED WASTE FACILITY INSPECTION RECORD FORM

PART II - For any AR (Action Required) in Part I above, describe below: action required, action taken, and date of action. Attach additional sheets if necessary.

4-14-97; AR1 - Safety shower at east end of dome 215 has faulty valve JCI turned off the entire unit until repairs can be made
 AR2 Labels on secondary waste generated by mixed waste SSD project are faded, illegible and incomplete
 AR3 Labels on some drums of secondary waste generated by mixed waste SSD project are missing accumulation dates
 AR4 Secondary containment pallets in mixed waste storage area contain storm water

4-15-97 AR1-AR4 - see above

4-16-97 " " "

*AR 4 - containment pallets pumped 5:00 am 8/11

4-17-97 AR1-AR3 see above

* AR 1 - safety shower east end dome 215 repaired by JCI (8/11)

4-18-97 AR2 } SSD secondary waste insufficiently
 AR3 } labeled

(Note: Items 43-48 must be completed for all inspections.)

43 INSPECTOR (Printed Name) Brady K. Means	45 Z NUMBER 002414	46 GROUP ENI-SWD	47 DATE 4-18-97	48 TIME 10:00 A.M.
44 INSPECTOR (Signature) Brady K. Means				

HAZARDOUS AND MIXED WASTE FACILITY INSPECTION RECORD FORM

1 FACILITY TA 54, Area L	2 <input type="checkbox"/> 90 DAY GENERATOR STORAGE <input checked="" type="checkbox"/> TREATMENT, STORAGE, DISPOSAL	3 START DATE 4-28-97	4 END DATE 5-2-97		
5 <input checked="" type="checkbox"/> Containers	<input type="checkbox"/> Landfill	<input type="checkbox"/> Surface Impoundment	<input type="checkbox"/> Waste Pits	<input type="checkbox"/> Thermal Treatment	<input type="checkbox"/> Chem/Phys/Bio. Tre
<input type="checkbox"/> Incinerator	<input type="checkbox"/> Misc. Unit	<input type="checkbox"/> Tank	<input type="checkbox"/> UST	<input type="checkbox"/> Land Treatment	<input type="checkbox"/> Underground Inj.

PART I - Enter condition of item inspected (OK or AR*) in column for day inspected.

ITEM	INSPECTED FOR	SUN	MON	TUE	WED	THU	FRI	SAT
6 NO USE	CHECK IF NO WASTE IS PRESENT	NA						
7 (UNLOADING AREA TANKS/CONTAINERS)	SPLLS AND DETERIORATION		OK	OK	OK	OK	OK	
8 COMMUNICATION EQUIPMENT (PHONE/RADIO/ALARMS)	PROPERLY FUNCTIONING		OK	OK	OK	OK	OK	
9 TANKS (ALL ABOVE GROUND PORTIONS) MONITORING DATA	DISCHARGE CONTROLS CONDITION, LEAKS, LEVEL (6" FREEBOARD), CORROSION		NA	NA	NA	NA	NA	
10 SURFACE IMPOUNDMENTS AND CONTAINMENT	FREEBOARD (2 ft) SUDDEN DROPS IN LEVEL		NA	NA	NA	NA	NA	
11 PORTA BERM	LEAKS, CONDITION		NA	NA	NA	NA	NA	
12 EYE WASH SAFETY SHOWERS	LEAKS, FUNCTIONING		OK	OK	OK	OK	OK	
13 STRUCTURAL INTEGRITY OF CONTAINERS/TANKS, VALVES, PIPES, AND FLANGES	DETERIORATION AND LEAKS, CORROSION, DAMAGE		OK	OK	OK	OK	OK	
14 COVER/LID OF CONTAINERS	CLOSED AND SECURED		OK	OK	OK	OK	OK	
15 WARNING SIGNS	POSTED & READABLE (BILINGUAL)		OK	OK	OK	OK	OK	
16 LABELS	"HAZARDOUS WASTE" PRESENT ON ALL CONTAINERS/TANKS		AR2	AR2	AR2	AR2	AR2	
17 ACCUMULATION START DATE	PRESENT ON ALL CONTAINERS, TANKS, NONE EXCEED TIME RESTRICTIONS		AR3	AR3	AR3	AR3	AR3	
18 RUN ON/OFF CONTROL (AREA L, G, H, F) LANDFILLS, DETONATION PADS	INTEGRITY, EROSION, PONDING		OK	OK	OK	OK	OK	
19 COVER INTEGRITY (AREA L, G, H, F) LANDFILLS	EROSION, SUBSIDENCE, WATER INTRUSION		NA	NA	NA	NA	NA	
20 SECURITY	CONDITION, FENCE/GATES/LOCKS		OK	OK	OK	OK	OK	
21 SITE LIGHTING	FUNCTIONS PROPERLY		OK	OK	OK	OK	OK	

ITEM	INSPECTED FOR	SUN	MON	TUE	WED	THU	FRI	SAT
28 CONTAINMENT STRUCTURES	INTEGRITY, STANDING WATER, VEGETATION, EROSION	NA	OK	OK	OK	OK	OK	NA
29 AISLE SPACE, STACKING	ADEQUACY, APPROPRIATENESS		OK	OK	OK	OK	OK	
30 MANAGEMENT OF CONTAINERS	SEGREGATED ACCORDING TO COMPATIBILITY		OK	OK	OK	OK	OK	
31 HOSE BIBS, WATER SUPPLY	LEAKS, FUNCTIONING		OK	OK	OK	OK	OK	
32 STORAGE SHEDS	FLOOR DAMAGE, LIQUID		OK	OK	OK	OK	OK	
33 ROAD/WORK SURFACES	CRACKS/POTHoles		OK	OK	OK	OK	OK	
34 WIND SOCK	DAMAGE, FUNCTIONING		OK	OK	OK	OK	OK	
35 SHAFT COVER AND RAIL	PRESENT, DAMAGE		OK	OK	OK	OK	OK	
36 PALLETS	INTEGRITY, DAMAGE		OK	OK	OK	OK	OK	
37 TREATMENT TANKS	PROPER OPERATION, LEAKS		NA	NA	NA	NA	NA	
38 REFRIGERATOR	DAMAGED CONTAINERS, PROPER OPERATION		OK	OK	OK	OK	OK	
39 SPILL CONTROL, FIRE AND EMERGENCY EQUIPMENT	PRESENT AND IN GOOD WORKING ORDER		OK	OK	OK	OK	OK	
40 INCINERATOR EMERGENCY WASTE FEED CUTOFF/ALARMS	FROM OPERATING CONDITION OF ALL SHUTDOWN CONTROLS		NA	NA	NA	NA	NA	
41 INCINERATOR PUMPS, VALVES, PIPES, MONITORING CONTROLS	LEAKS/SPILLS/TAMPING, OPERATING WITHIN SPEC.		NA	NA	NA	NA	NA	
42 PRESSURE VESSELS (S-SITE)	DETERIORATION AND SAND CONDITION		NA	NA	NA	NA	NA	
43 OIL BURN PANS (S-SITE)	DETERIORATION & LEAKS		NA	NA	NA	NA	NA	
44 HSE BURN PADS (S-SITE)	DETERIORATION, VEGETATION, SAND COND., EROSION		NA	NA	NA	NA	NA	
45 RADIATION SAFETY	SIGNS, MONITORING (6 BY 7)		OK	OK	OK	OK	OK	
46 DATE	DATE OF INSPECTION		4-28-97	4-29-97	4-30-97	5-1-97	5-2-97	
47 TIME	TIME OF INSPECTION		7:15am	7:15am	7:15am	7:15am	7:15am	
48 INSPECTOR	INITIALS OF INSPECTOR		BKM	BKM	BKM	BKM	BKM	

Attachment 6-1 (Continued)
Hazardous and Mixed Waste Facility Inspection Record Form

November 14, 1994

HAZARDOUS AND MIXED WASTE FACILITY INSPECTION RECORD FORM

PART II - For any AR (Action Required) in PART I above, describe below: action required, action taken, date of action. Attach additional sheets if necessary.

4-28-97 thru 5-2-97

AR 2 & AR 3 - secondary waste from mixed waste work off projects improperly and inadequately labeled. Resolution of AR's depends on information not currently available to me

(Note: Items 43-48 must be completed for all inspections.)

43 INSPECTOR (Printed Name)	45 Z NUMBER	46 GROUP	47 DATE	48 TIME
Brady K. Means	0824141	EM-SWD	5-2-97	9:00 am
44 INSPECTOR (Signature)				
Brady K. Means				

HAZARDOUS AND MIXED WASTE FACILITY INSPECTION RECORD FORM

1 FACILITY TA-54 Area L	2 <input checked="" type="checkbox"/> <90 DAY, GENERATOR STORAGE <input checked="" type="checkbox"/> TREATMENT, STORAGE, DISPOSAL	3 START DATE 7-21-97	4 END DATE 7-25-97
5 <input checked="" type="checkbox"/> Containers <input type="checkbox"/> Landfill <input type="checkbox"/> Surface Impoundment <input type="checkbox"/> Waste Pile <input type="checkbox"/> Thermal Treatment <input type="checkbox"/> Chem/Phys/Bio. Treat.			
<input type="checkbox"/> Incinerator <input type="checkbox"/> Misc. Unit <input type="checkbox"/> Tank <input type="checkbox"/> UST <input type="checkbox"/> Land Treatment <input type="checkbox"/> Underground Inj.			

PART I - Enter condition of item inspected (OK or AR*) in column for day inspected.

ITEM	INSPECTED FOR	SUN	MON	TUE	WED	THU	FRI	SAT
6 NO USE	CHECK IF NO WASTE IS PRESENT	NA						
7 (UN)LOADING AREA TANKS/CONTAINERS	SPILLS AND DETERIORATION		OK	OK	OK	OK	OK	
8 COMMUNICATION EQUIPMENT (PHONE/RADIO/ALARMS)	PROPERLY FUNCTIONING		OK	OK	OK	OK	OK	
9 TANKS (ALL ABOVE GROUND PORTIONS) MONITORING DATA	DISCHARGE CONTROLS CONDITION, LEAKS, LEVEL (6" FREEBOARD), CORROSION		NA	NA	NA	NA	NA	
10 SURFACE IMPOUNDMENTS AND CONTAINMENT	FREEBOARD (2 ft) SUDDEN DROPS IN LEVEL		NA	NA	NA	NA	NA	
11 PORTA BERM	LEAKS, CONDITION		NA	NA	NA	NA	NA	
12 EYE WASH SAFETY SHOWERS	LEAKS, FUNCTIONING		OK	OK	OK	OK	OK	
13 STRUCTURAL INTEGRITY OF CONTAINERS/TANKS, VALVES, PIPES, AND FLANGES	DETERIORATION AND LEAKS, CORROSION, DAMAGE		OK	OK	OK	OK	OK	
14 COVER/LID OF CONTAINERS	CLOSED AND SECURED		OK	OK	OK	OK	OK	
15 WARNING SIGNS	POSTED & READABLE (BILINGUAL)		OK	OK	OK	OK	OK	
16 LABELS	"HAZARDOUS WASTE" PRESENT ON ALL CONTAINERS/TANKS		AR>	AR>	AR>	AR>	AR>	
17 ACCUMULATION START DATE	PRESENT ON ALL CONTAINERS, TANKS, NONE EXCEED TIME RESTRICTIONS		AR6	AR6	AR6	AR6	AR6	
18 RUN ON/OFF CONTROL (AREA L, G, H, P) LANDFILLS, DETONATION PADS	INTEGRITY, EROSION, PONDING		OK	OK	OK	OK	OK	
19 COVER INTEGRITY (AREA L, G, H, P), LANDFILLS	EROSION, SUBSIDENCE, WATER INTRUSION		NA	NA	NA	NA	NA	
20 SECURITY	CONDITION, FENCE/GATES/LOCKS		OK	OK	OK	OK	OK	
21 SITE LIGHTING	FUNCTIONS PROPERLY		OK	OK	OK	OK	OK	

HAZARDOUS AND MIXED WASTE FACILITY INSPECTION RECORD FORM

ITEM	INSPECTED FOR	SUN	MON	TUE	WED	THU	FRI	SAT
22 CONTAINMENT STRUCTURES	INTEGRITY, STANDING WATER, VEGETATION, EROSION	NA	ARG	OK	OK	OK	OK	NA
23 AISLE SPACE, STACKING	ADEQUACY, APPROPRIATENESS		OK	OK	OK	OK	OK	
24 MANAGEMENT OF CONTAINERS	SEGREGATED ACCORDING TO COMPATIBILITY		OK	OK	OK	OK	OK	
25 HOSE BIBS, WATER SUPPLY	LEAKS, FUNCTIONING		OK	OK	OK	OK	OK	
26 STORAGE SHEDS	FLOOR DAMAGE, LIQUID		OK	OK	OK	OK	OK	
27 ROAD/WORK SURFACES	CRACKS/POTHoles		ARG	ARG	ARG	ARG	ARG	
28 WIND SOCK	DAMAGE, FUNCTIONING		OK	OK	OK	OK	OK	
29 SHAFT COVER AND RAIL	PRESENT, DAMAGE		OK	OK	OK	OK	OK	
30 PALLETS	INTEGRITY, DAMAGE		OK	OK	OK	OK	OK	
31 TREATMENT TANKS	PROPER OPERATION, LEAKS		NA	NA	NA	NA	NA	
32 REFRIGERATOR	DAMAGED CONTAINERS, PROPER OPERATION		OK	OK	OK	OK	OK	
33 SPILL CONTROL, FIRE, AND EMERGENCY EQUIPMENT	PRESENT AND IN GOOD WORKING ORDER		OK	OK	OK	OK	OK	
34 INCINERATOR EMERGENCY WASTE FEED CUTOFF/ALARMS	PROPER OPERATING CONDITION OF ALL SHUTDOWN CONTROLS		NA	NA	NA	NA	NA	
35 INCINERATOR PUMPS, VALVES, PIPES, MONITORING CONTROLS	LEAKS/SPILLS/TAMPERING, OPERATING WITHIN SPECS.		NA	NA	NA	NA	NA	
36 PRESSURE VESSELS (S-SITE)	DETERIORATION AND SAND CONDITION		NA	NA	NA	NA	NA	
37 OIL BURN PANS (S-SITE)	DETERIORATION & LEAKS		NA	NA	NA	NA	NA	
38 HE BURN PADS (S-SITE)	DETERIORATION, VEGETATION, SAND COND., EROSION		NA	NA	NA	NA	NA	
39 RADIATION SAFETY	SIGNS, MONITORING (α β γ TH)		OK	OK	OK	OK	OK	
40 DATE	DATE OF INSPECTION		7-21-97	7-22-97	7-23-97	7-24-97	7-25-97	
41 TIME	TIME OF INSPECTION		7:15am	7:15am	7:00am	7:00am	7:00am	
42 INSPECTOR	INITIALS OF INSPECTOR		BKM	BKM	BKM	BKM	BKM	

7-21-97: AR2 - In sufficient information on some labels of secondary waste from mixed waste work off projects - Data search on going, some drums completed and relabeled

AR6 - drum 96064092 has exceeded 1 year in storage Rollins/Laidlaw employees will modify inner container to meet off site shipment criteria

AR8 - Potholes just inside vehicle gate; JCI contacted for repairs

AR9 - Rain water in containment sumps. - pumped same day ~~8/2/97~~

7-22-97: AR7, AR6, AR8 same as above

7-23-97: AR2, AR6, AR8 same as above

7-24-97: AR2, AR6, AR8 same as above

7-25-97: AR2, AR6, AR8 same as above

*NOTE: more progress being made on AR2 daily

(Note: Items 43-45 must be completed for all inspections.)

43 INSPECTOR (Printed Name) Brady K. Means	45 Z NUMBER 0824141	46 GROUP EM-SWD	47 DATE 7-25-97	48 TIME 10:00am
44 INSPECTOR (Signature) <i>Brady K. Means</i>				

HAZARDOUS AND MIXED WASTE FACILITY INSPECTION RECORD FORM

1 FACILITY TA-54 ARPA L	2 <input checked="" type="checkbox"/> 90 DAY, GENERATOR STORAGE <input type="checkbox"/> TREATMENT, STORAGE, DISPOSAL	3 START DATE 10-6-97	4 END DATE 10-10-97
5 <input checked="" type="checkbox"/> Containers <input type="checkbox"/> Landfill <input type="checkbox"/> Surface Impoundment <input type="checkbox"/> Waste Pile <input type="checkbox"/> Thermal Treatment <input type="checkbox"/> Chem/Phys/Bio. Treat.			
6 <input type="checkbox"/> Incinerator <input type="checkbox"/> Misc. Unit <input type="checkbox"/> Tank <input type="checkbox"/> UST <input type="checkbox"/> Land Treatment <input type="checkbox"/> Underground Inj.			

PART I - Enter condition of item inspected (OK or AR*) in column for day inspected.

ITEM	INSPECTED FOR	SUN	MON	TUE	WED	THU	FRI	SAT
6 NO USE	CHECK IF NO WASTE IS PRESENT	NA	NA	NA	NA	NA	NA	NA
7 (UN)LOADING AREA TANKS/CONTAINERS	SPILLS AND DETERIORATION		OK	OK	OK	OK	OK	
8 COMMUNICATION EQUIPMENT (PHONE/RADIO/ALARMS)	PROPERLY FUNCTIONING		OK	OK	OK	OK	OK	
9 TANKS (ALL ABOVE GROUND PORTIONS) MONITORING DATA	DISCHARGE CONTROLS CONDITION, LEAKS, LEVEL (6" FREEBOARD), CORROSION		NA	NA	NA	NA	NA	
10 SURFACE IMPOUNDMENTS AND CONTAINMENT	FREEBOARD (2 ft) SUDDEN DROPS IN LEVEL		NA	NA	NA	NA	NA	
11 PORTA BERM	LEAKS, CONDITION		NA	NA	NA	NA	NA	
12 EYE WASH SAFETY SHOWERS	LEAKS, FUNCTIONING		OK	OK	OK	OK	OK	
13 STRUCTURAL INTEGRITY OF CONTAINERS/TANKS, VALVES, PIPES, AND FLANGES	DETERIORATION AND LEAKS, CORROSION, DAMAGE		OK	OK	OK	OK	OK	
14 COVER/LID OF CONTAINERS	CLOSED AND SECURED		OK	OK	OK	OK	OK	
15 WARNING SIGNS	POSTED & READABLE (BILINGUAL)		OK	OK	OK	OK	OK	
16 LABELS	"HAZARDOUS WASTE" PRESENT ON ALL CONTAINERS/TANKS		AR 2					
17 ACCUMULATION START DATE	PRESENT ON ALL CONTAINERS, TANKS, NONE EXCEED TIME RESTRICTIONS		AR 6					
18 RUN ON/OFF CONTROL (AREA L, G, H, P) LANDFILLS, DETONATION PADS	INTEGRITY, EROSION, PONDING		OK	OK	OK	OK	OK	
19 COVER INTEGRITY (AREA L, G, H, P), LANDFILLS	EROSION, SUBSIDENCE, WATER INTRUSION		NA	NA	NA	NA	NA	
20 SECURITY	CONDITION, FENCE/GATES/LOCKS		OK	OK	OK	OK	OK	
21 SITE LIGHTING	FUNCTIONS PROPERLY		OK	OK	OK	OK	OK	

HAZARDOUS AND MIXED WASTE FACILITY INSPECTION RECORD FORM

PART II - For any AR (Action Required) in PART I above, describe below: action required, action taken, date of action. Attach additional sheets if necessary.

10-6-97: AR2 - Labels on some drums of secondary waste generated by mixed waste work of projects lack sufficient information data search and problem resolution ongoing

AR6 - 96064092 has exceeded 1 year in storage - inner container needs to be modified to meet offsite criteria - contents extremely hazardous (osmium tetroxide)

AR8 - pot holes in yard - awaiting JCI repairs

10-7-97: AR2, AR6, AR8 same as above

10-8-97: AR2, AR6, AR8 same as above

10-9-97: AR2, AR6, AR8 same as above

10-10-97: AR2, AR6, AR8 same as above

(Note: Items 43-48 must be completed for all inspections.)

43 INSPECTOR (Printed Name) <i>Brady K. Means</i>	45 Z NUMBER <i>062414</i>	46 GROUP <i>EM-SW0</i>	47 DATE <i>10-10-97</i>	48 TIME <i>11:00 am</i>
44 INSPECTOR (Signature) <i>Brady K. Means</i>				

1 FACILITY TA-54 Area L	<input checked="" type="checkbox"/> <90 DAY, GENERATOR STORAGE TREATMENT, STORAGE, DISPOSAL	3 START DATE 5-4-98	4 END DATE 5-8-98
5 <input checked="" type="checkbox"/> Containers	<input type="checkbox"/> Landfill	<input type="checkbox"/> Surface Impoundment	<input type="checkbox"/> Waste Pile
<input type="checkbox"/> Incinerator	<input type="checkbox"/> Misc. Unit	<input type="checkbox"/> Tank	<input type="checkbox"/> UST
		<input type="checkbox"/> Thermal Treatment	<input type="checkbox"/> Chem/Phys/Bio. Treat.
		<input type="checkbox"/> Land Treatment	<input type="checkbox"/> Underground Inj.

PART I - Enter condition of item inspected (OK or AR*) in column for day inspected.

ITEM	INSPECTED FOR	SUN	MON	TUE	WED	THU	FRI	SAT
6 NO USE	CHECK IF NO WASTE IS PRESENT	NA						
7 (UN)LOADING AREA TANKS/CONTAINERS	SPILLS AND DETERIORATION		OK	OK	OK	OK	OK	
8 COMMUNICATION EQUIPMENT (PHONE/RADIO/ALARMS)	PROPERLY FUNCTIONING		OK	OK	OK	OK	OK	
9 TANKS (ALL ABOVE GROUND PORTIONS) MONITORING DATA	DISCHARGE CONTROLS CONDITION, LEAKS, LEVEL (6" FREEBOARD), CORROSION		NA	NA	NA	NA	NA	
10 SURFACE IMPOUNDMENTS AND CONTAINMENT	FREEBOARD (2 ft) SUDDEN DROPS IN LEVEL		NA	NA	NA	NA	NA	
11 PORTA BERM	LEAKS, CONDITION		NA	NA	NA	NA	NA	
12 EYE WASH SAFETY SHOWERS	LEAKS, FUNCTIONING MAY 11 1998		OK	OK	OK	OK	OK	
13 STRUCTURAL INTEGRITY OF CONTAINERS/TANKS, VALVES, PIPES, AND FLANGES	DETERIORATION AND LEAKS, CORROSION, DAMAGE		OK	OK	OK	OK	OK	
14 COVER/LID OF CONTAINERS	CLOSED AND SECURED		OK	OK	OK	OK	OK	
15 WARNING SIGNS	POSTED & READABLE (BILINGUAL)		OK	OK	OK	OK	OK	
16 LABELS	"HAZARDOUS WASTE" PRESENT ON ALL CONTAINERS/TANKS		AR2	AR2	AR2	OK	OK	
17 ACCUMULATION START DATE	PRESENT ON ALL CONTAINERS, TANKS, NONE EXCEED TIME RESTRICTIONS		OK	OK	OK	OK	OK	
18 RUN ON/OFF CONTROL (AREA L, G, H, P) LANDFILLS, DETONATION PADS	INTEGRITY, EROSION, PONDING		OK	OK	OK	OK	OK	
19 COVER INTEGRITY (AREA L, G, H, P), LANDFILLS	EROSION, SUBSIDENCE, WATER INTRUSION		NA	NA	NA	NA	NA	
20 SECURITY	CONDITION, FENCE/GATES/LOCKS		OK	OK	OK	OK	OK	
21 SITE LIGHTING	FUNCTIONS PROPERLY		OK	OK	OK	OK	OK	

PART II - For any AR (Action Required) PART I above, describe below: action required, action date, date of action. Attach additional sheets if necessary.

5-4-98: AR 2 labels on small number of drums of secondary waste generated by mixed waste work of projects lack sufficient information - data search and problem resolution ongoing

5-5-98: AR 2 same as above

5-6-98: AR 2 same as above

* AR 2 - 3:00pm - label problems on last six drums resolved - BKM

MAY 11 1998

(Note: Items 43-48 must be completed for all inspections.)

43 INSPECTOR (Printed Name)	Brady K. Means	45 Z NUMBER 082414	46 GROUP EM-SWO	47 DATE 5-8-98	48 TIME 3:00pm
44 INSPECTOR (Signature)	Brady K. Means				

ORIGINAL

STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT

#32
Dropped

IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515

COMPLIANCE ORDER
HRM-99-03(CO)
(1997 Inspection)

AFFIDAVIT

1) I, Barbara F. Smith, am an employee of the University of California at Los Alamos National Laboratory (LANL).

2) I have been employed with LANL since 1984.

3) I am aware of the statements contained in finding number 47 and conclusion of law number 37 of the New Mexico Environment Department's (NMED) Compliance Order NMHWA 99-03.

4) At the time of the 1997 inspection I was with Chemical Science and Technology Organic Chemistry Group (CST-12).

5) At the time of the inspection I was the team leader for the experimental work being conducted at TA-46, Bldg. 24, Rm. B6.

6) At the time of the inspection CST-12 was in the process of setting up new equipment in our laboratory at TA-46, Bldg. 24, Rm. B6.

7) At the time of the inspection a new mercury analyzer instrument was being assembled, tested, and calibrated.

8) We were running large amounts of water through the system to check flow meters and solenoid valves. We were having trouble getting the ball meters working properly and were in the process of replacing them.

9) The technician who was performing this work is no longer in CST-12.

10) The reagent we used to calibrate the machine flow was water. Reagents that are generally used in the analysis are tin chloride in dilute hydrochloric acid.

11) When the reagents used for analysis mixed with the volume of water in the collection container, it would have formed a slightly acidic solution.

12) Because of the large but unquantified volume of water we ran through the machine prior to calibration, I cannot calculate the pH of the solution in the container.

FURTHER AFFIANT SAYETH NAUGHT.

Barbara F. Smith
BARBARA F. SMITH

STATE OF NEW MEXICO)
) ss.
COUNTY OF LOS ALAMOS)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me this 18th day of October, 2001, by Barbara F. Smith.

Roberta S. Martinez
NOTARY PUBLIC

My Commission Expires:

May 25, 2002

8/1/01

CO99-03

Alicia Bazz	LANL	667-0820 / 667-5224 FAX
Debby Brinkerhoff	NMED/HWB	428-2528
Beth Osheim	DOE/LAEO	677-4667
Sandra R. Moreno	- UC LANL -	665-1552
	Deputy Lab Counsel	
Ellen Louderbough	UC/LANL	665-2286 / 667-5224
Tannis Fox	NMED	827-1603

8/2/01

Alicia Bazz	LANL	667-0820 / 667-5224 FAX
Debby Brinkerhoff	NMED/HWB	428-2528
Beth Osheim	DOE/LAEO	667-4667
Ellen Louderbough	LANL	665-2286
Tannis		

8/1/01

CO99-03

Alia Baer	LANL	667-0828 / 667-5224 FAX
Debby Brinkhoff	NMED/HWB	428-2528
Beth Osheim	DOT/LAAO	677-4667
Sandra R. Moreno	- UC LANL - Deputy Lab Counsel	665-1552
Ellen Louderbough	UC/LANL	665-2286 / 667-5224
Tanni's Fox	NMED	827-1603

Los Alamos

NATIONAL LABORATORY
Laboratory Counsel  *General Law Offices*

*P. O. Box 1663/MS A187
1650 Trinity Drive
Los Alamos, New Mexico 87545
(505) 667-3766, FAX:665-4424*

Date: March 14, 2000

Symbol: GL: 10520-9920

HAND DELIVERED

Connie M. Salazar
Hearing Clerk
New Mexico Environment Department
1190 St. Francis Drive, Rm. N4084
Santa Fe, NM 87502

RE: COMPLIANCE ORDER 99-03 - ANSWER

Please find enclosed the original Answer to Administrative Compliance Order signed by the Regents of the University of California (UC) in connection with Compliance Order HRM - 99-03, as well as documents demonstrating compliance with ordered actions. Also enclosed is the Certificate of Service, and a copy of the Compliance Order.

Sincerely,



Ellen T. Louderbough
Staff Attorney

Encs.

Cys: Tannis Fox, NMED, (with enclosures)
Hortense Haynes, LAAO, (with enclosures)
LC/GL
File (2)



Department of Energy
Albuquerque Operations
Los Alamos Area Office
Los Alamos, New Mexico 87544

MAR 14 2000

Ms. Connie Salazar
Hearing Clerk
New Mexico Environment Department
1190 St. Francis Drive
Santa Fe, NM 87502

Re: IN THE MATTER OF U.S. DEPARTMENT OF ENERGY AND
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA LOS
ALAMOS, New Mexico, NM0890010515; COMPLIANCE ORDER
HRM-99-03

Dear Ms. Salazar:

Enclosed for filing is the Answer of the U.S. Department of Energy in the above matter, together with a copy of Compliance Order HRM-99-03. The enclosure to the Answer of the Regents of the University of California entitled, "99-03 Ordered Actions," and the enclosure to this letter comprise the Department's response to the above order.

We have also provided a copy of our Answer to counsel for the Complainant. Please call me at (505) 667-4667 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "E. L. Osheim".

Elizabeth L. Osheim
Counsel

Enclosure: As Stated

The issue has arisen as to whether the chemical products that are the subject of Compliance Order (CO) 99-03 constituted solid waste regulated under Subtitle C of the Resource Conservation and Recovery Act (RCRA). To arrive at such a conclusion, one must determine if the chemicals were either secondary materials within the meaning established by recycling regulations, or if an intent to discard existed.

A brief examination of EPA's regulatory structure designed for recycling is useful in determining whether these materials were solid wastes. On January 4, 1985 (50FR616)(see attachment #1), EPA revised the definition of solid waste as it relates to recycling such that both knowledge of what a material is and how it is recycled is necessary to determine RCRA Subtitle C applicability. EPA's jurisdiction includes "secondary material", identified as spent materials, sludges, by-products, commercial chemical products (recycled in ways that differ from normal use (50FR618, #2)), and scrap metal. Once a substance is determined to be secondary material, the manner in which it is recycled must be evaluated to arrive at Subtitle C applicability. If its use constitutes disposal, if it is burned for energy recovery, used to produce fuel, inherently waste-like, reclaimed, or accumulated speculatively, a secondary material is defined as a solid waste (261.2(c) & (d), #3). If it is secondary material recycled by use or reuse as an ingredient in a production process, as a substitute for a commercial product or in a closed loop process, it is not a solid waste (261.2(e)(1), #4)

To establish whether these CO99-03 chemicals represent secondary material and potentially solid waste, one must consider EPA's discussion regarding the definition of secondary material as well as the relationship between recycling and commercial chemical products. In the January 4, 1985 FR preamble, EPA describes "secondary material" as material that "potentially can be a solid and hazardous waste when recycled". Types of secondary material within Subtitle C jurisdiction are defined in the rule published in the same FR and are identified in the above paragraph. As described, the only conditions that might result in a commercial chemical product being construed as a secondary material is when it is recycled in a manner constituting disposal or burned for energy recovery – it would not normally be considered secondary material unless it was recycled in ways that differ from its normal use (50FR618, #5). Because some chemicals identified in CO99-03 would be included in the list of commercial chemical products found in 261.33 but were not recycled by being disposed or burned for energy recovery, they would not constitute secondary material. Other CO99-03 chemicals not specifically included in 261.33 that exhibit a hazardous characteristic would be considered by EPA to have the same status as those chemicals that are listed: "they are not solid waste when recycled except when they are recycled in ways that differ from their normal use" (April 11, 1985, 50 FR14219, #6). None of the CO99-03 chemicals were managed in such a manner so as to meet the definition of a secondary material. It follows that if the product in question is not secondary material, it cannot be a solid waste within the context of the recycling program.

EPA's approach to listing commercial chemical products as hazardous waste is consistent with the position it has taken with regard to recycling such material. From some of the earliest rulemakings, EPA explained that a commercial chemical product need not be regulated as hazardous unless it is discarded or intended to be discarded (45FR78540, #7). Even the title phrase to the section that regulates commercial chemical products as hazardous waste at 40CFR261.33 (#8) establishes that these are considered "*Discarded commercial chemical products*" (emphasis added) and further identifies these materials as "discarded or intended to be discarded". In August 1987, EPA maintained this position in a response to a RCRA Hotline question stating that a material remains a commercial chemical product until such time as they are discarded or intended to be discarded (Section 261.2 and Section 261.33)" (#9). EPA reiterates this concept in its' discussions regarding commercial chemical products and wastes that are accumulated speculatively without sufficient amounts being used, reused, or reclaimed. It describes such products as "hazardous waste when discarded or intended for discard, and not when recycled or intended for recycling ..." It goes on to clarify that "Commercial chemical products that are being stored with recycling potential and with legitimate expectation of recycling, therefore, are not intended for discard and thus are not subject to..." the speculative accumulation provision (48FR14489, #10). By not being subject to speculative accumulation, a product would be neither a solid nor a hazardous waste (40CFR261.2, Table 1, #11). One could then conclude that if a commercial chemical product was retained because, for all intents and purposes, it still represented a usable material, EPA had not intended that it be categorized as a waste (45FR78540, 78541, and EPA's "Re-engineering RCRA For Recycling – Report and Recommendations of the Definition of Solid Waste Task Force", EPA530-R-94-016, (#12), November 1994, footnote 7: "The Agency has determined that unused products or recycling scrap metal should not be subject to Subtitle C requirements, and we have no information suggesting that these requirements should be changed.")

Additional support for the concept that commercial chemical products are hazardous waste only when discarded or intended to be discarded exists in several other regulations and preamble. The comment at 40CFR261.33(c) confirms the condition that causes a product to be hazardous waste – it is "intended for discard" – not, however, when "beneficially used, or reused, or legitimately recycled or reclaimed" (45FR78529 and 40CFR261.2, Table 1) (#13). EPA established this position again at 45FR78540 (#14) when it stated that "The purpose of 261.33 is to regulate only the listed chemical products... as hazardous wastes when they are discarded or intended to be discarded." At 45FR78528, EPA clarified that commercial chemical products are not subject to the provisions of 261.6 (#15) requiring RCRA-compliant storage and transportation of listed wastes that are used, re-used, recycled or reclaimed, because "261.6 only applies to hazardous waste, and materials listed in 261.33 become hazardous waste only when they are discarded or are intended to be discarded." EPA presents an interpretative question on page 45FR78540, "Are the commercial products...listed in 261.33 subject to regulation if they are used, reused, recycled, or reclaimed in lieu of being discarded?" that clearly provides further support for this issue. In its answer, not only does EPA restate that products are waste only when discarded or intended to be discarded, but it

goes on to reiterate that reused products listed at 261.33 were never intended to be subject to 261.6 provisions because they are not waste. It states: "No. A commercial chemical product ... listed in 261.33 is a hazardous waste only if discarded or intended to be discarded. If it continues to be used or sold, it is not being discarded and therefore is not a hazardous waste... Thus the provisions of 261.6(b) are not intended to apply to reuses of 261.33 materials, since in such cases the materials are never discarded. The reference in 261.6(b) to wastes "listed in subpart D" is confusing. Wastes listed in 261.31 and 261.32 are the only wastes intended to be included." (#16). Clearly, EPA's distinction between product and waste is well-established based on its' premise of discard.

If a product is only a waste when discarded, one must determine when discard (or intent to do so) occurs by examining EPA's concept of discard. Under 40CFR261.2, a material is discarded by being either recycled by being used in a manner constituting disposal or burned for energy recovery (in the case of products), or by being abandoned. For a material to have been abandoned it must be disposed of, burned, incinerated, or stored prior to or in lieu of these activities. EPA clarified that 'abandoned' was intended to "simply mean thrown away" (50FR627, #17). With regard to products, EPA evaluated whether such material, when accumulated over time without being used, met the criteria for being abandoned. At 50FR636 (#18), EPA "indicated ... that commercial chemical products that are hazardous waste when discarded (i.e., those listed in 261.33 of the regulations) were not subject to ... overaccumulation provisions". EPA decided against adopting time limitations to trigger a point at which a product not being used is considered to be abandoned by being stored. It stated that "these materials are wastes when discarded or intended for discard (by means of abandonment), and are not wastes when stored for recycling (50FR636, (#18)). EPA originally established this standard at 45FR33090 (#19) when it defined "other discarded material" as "(1) Any material which is not re-used - i.e., is abandoned or committed to final disposal." In summary, mere storage of a product for an indefinite period of time does not indicate an intent to abandon and hence, discard.

Perhaps the most conclusive position established by EPA regarding "intent to discard" is presented in preamble for the military munitions rule (60FR56471, #20). In its attempt to define what constitutes an "intent to destroy" munitions, EPA compared munitions management to that which causes commercial chemical products to become solid wastes. It stated that "The Part 261 regulations regarding commercial products in storage rely largely on the "intent" of the owner to discard; over the years EPA has sought to establish simple, consistent, and enforceable principles regarding the point at which commercial products are intended to be "discarded" - notably these are (1) when the products are removed from storage for disposal, or treatment prior to disposal, (2) when the owner declares them to be hazardous waste, and (3) when they are deteriorated or damaged (e.g., leaking) to the point they cannot be used, or processed for beneficial use." Not only did EPA consider unused products not waste "until an intent to discard the material can be demonstrated", but it even allowed that an expired shelf life or deterioration would not automatically cause the material to be "discarded". On the same page it states that "Under RCRA, unused products do not become "waste" until they become "discarded material," that is, until an intent to discard the material can be demonstrated. Even if a

commercial product's shelf life has expired, or it can no longer be used for its intended purpose (for example, because of physical deterioration), it may be reprocessed or used for other purposes. Thus, it would not necessarily be considered "discarded material" or solid waste."

In conclusion, the chemicals identified in CO99-03 were not solid wastes because they were neither secondary material nor had an intent to discard existed. They were not secondary material because they were not recycled in a manner that differed from their normal use, specifically, recycled by being disposed of or burned for energy recovery. If the prerequisite definition of secondary material cannot be met, the determination that a material is a solid waste cannot result in the context of recycling requirements. In addition, the storage of these chemicals did not rise to the standards established by EPA regarding "intent" to discard. They were not removed from storage for treatment or disposal, declared to be waste, nor unable to be used or reprocessed for beneficial use.

prepared by Alice Barr
8/17/01

proposed conditional exemptions from regulation. They argued that the exemptions were too broad, particularly with respect to lack of notification, recordkeeping, and waste tracking provisions. Some states also criticized the absence of storage controls on certain recycling operations. States and administrative agencies were virtually unanimous in urging the Agency to take more and immediate action against burning hazardous waste-derived fuels and contaminated used oil.

The major environmental group to comment on the proposal was critical of many of the provisions, particularly the conditional exemptions for certain hazardous waste recycling activities. The Congressional Office of Technology Assessment voiced similar criticisms. Certain (but not all) segments of the non-recycling commercial hazardous waste management community also criticized the conditional exemptions.

After reviewing the comments, EPA has decided to adopt the proposal as a final rule, but with a number of modifications and clarifications. In defining a solid waste, the key concept of the proposal was that ordinarily one must know both what a material is and how it is being recycled before knowing whether it is a solid waste. We are retaining this concept, which had substantial support from commenters, in the final rule. Although we are adhering to this conceptual approach, we are making substantive changes regarding which secondary materials are wastes when burned as fuels and when placed on the land, and also regarding certain of the proposed exclusions, which we now think were ambiguous or overbroad. In addition, we are clarifying how the regulations apply to the recycling of hazardous scrap metal; we are also indicating explicitly that certain types of materials being recycled are not solid wastes.

We are also altering the proposed regulatory regime. The most significant change is to eliminate most of the proposed conditional exemptions. These exemptions, we now believe, would not have adequately protected human health and the environment from the risks of leaks and spills.

We also have made a number of drafting changes to clarify the definition of solid waste and its accompanying regulatory provisions. We have revised the definition to state more clearly the types of recycling activities that do or do not constitute waste management, and have included a chart of materials and recycling activities (Figure 1 to the proposed rule) as part of the final rule. Accompanying definitions have been transferred to a new applicability

provision in § 261.1. We also are expressing certain exceptions to general principles as variances, contained in Part 260.

Today's preamble is organized into four large sections. Part I contains a background discussion and a summary description of the final regulation. Part II deals with the question of which materials are solid wastes, and especially the question of which materials are solid (and hazardous)³ wastes when recycled. Part III discusses the management standards for hazardous waste recycling activities, and Part IV addresses the regulatory impacts of the final rule.

Described in more detail, Part I of the preamble describes briefly the Agency's legal authority, and alternative approaches the Agency considered instead of the one actually adopted. The final section of this part of the preamble summarizes the portions of the final rule stating which hazardous secondary materials are and are not RCRA Subtitle C wastes when recycled.

Part II of the preamble discusses the Agency's jurisdiction (under Subtitle C) over secondary materials that are to be recycled. We explain each provision in the rule that states which hazardous secondary materials are and are not RCRA Subtitle C wastes when recycled. We first explain the new definitions involved in the rule—principally regarding types of secondary materials and types of thermal combustion units. We next discuss each provision of the rule stating when hazardous secondary materials that are to be recycled are wastes. For each provision, we discuss the proposed rule, the final rule, how and why it differs from the proposed rule, and respond to major comments. (A separate background document responding to each comment is part of the record for this rulemaking.)

In Part III, we describe the regulatory standards for hazardous wastes that are to be recycled. We also discuss in this section the variance provisions that are part of the final rule.

Part IV summarizes the economic and regulatory impacts expected to result from this regulation. A separate report on the economic impacts is part of the record for this rulemaking.

³ Although hazardous wastes are a subset of solid wastes under RCRA, EPA's regulatory authority under Subtitle C applies only to hazardous wastes. Since the present regulations apply only to Subtitle C, we have chosen to make the definition of solid waste applicable to those materials that also are hazardous wastes. See Section II.A. of Part 2 below. The terms thus are synonymous for purposes of the Subtitle C regulations. In addition, we are using the terms (as well as the term "waste" or "Subtitle C waste") synonymously in this preamble.

Part I: Introduction and Background

I. Legal Authority

The Agency in the April 4 preamble described fully its position that Congress gave EPA authority to regulate recycled secondary materials as solid and hazardous wastes under the Subtitle C regulations. See 48 FR 14473, 14502-505. Subsequent legislative pronouncements again confirm our interpretation. See H.R. Rep. No. 98-198, 98th Cong. 1st Sess. at 46. Some commenters repeated old arguments challenging the Agency's authority, but raised no points not already answered. We consequently see no need to discuss these points again. In any case, the recent Hazardous and Solid Waste Act Amendments of 1984 (HSWA) appear to have settled this question by explicitly requiring EPA to adopt "standards applicable to the legitimate use, reuse, recycling, and reclamation of (hazardous) wastes" (RCRA amended section 3001(d)(2)). We add that the Agency's construction is made in the context of a "legislative directive . . . (that) is implicit rather than explicit", and that the construction is a "reasonable interpretation" of the ambiguous statutory term "solid waste". *Chevron U.S.A. v. NRDC*, — U.S. —, — (1984). The Agency's construction thus is surely a "permissible" one. *Id.* at —.

Certain other commenters indicated that RCRA provides EPA with unrestricted authority to regulate all recycling as waste management. The Agency does not fully accept this argument. We agree that RCRA embodies a general principle that most hazardous secondary materials⁴ are considered to be hazardous wastes when recycled. Congress enacted a regulatory approach to deal with the problem of ensuring safe hazardous waste management. (H.R. Rep. No. 94-1491, 98th Cong. 2d Sess. at 4.) We indeed believe that the statute expresses a presumption that accumulated hazardous secondary materials are solid and hazardous wastes in order that this regulatory approach be applied to "the last remaining loophole in environmental law" (*id.*). We believe, however, that the grant of authority in RCRA over recycling activities is not

⁴ Throughout this preamble, EPA refers for convenience to "secondary materials." We mean a material that potentially can be a solid and hazardous waste when recycled. The rule itself refers to the following types of secondary materials: Spent materials, sludges, by-products, scrap metal, and commercial chemical products recycled in ways that differ from their normal use. The rule does not use the term secondary materials.

solvents and gasoline (to name only some of the more valuable commodities) from product storage tanks, showing the risk of spillage of stored commodities. The recent addition of Subtitle I to RCRA to control leaks from underground product storage tanks confirms that the risk of harm from spillage is significant. Indeed, there have been a number of instances of groundwater contamination caused by improper storage of hazardous wastes awaiting reclamation by their generator, hazardous wastes being reclaimed pursuant to batch tolling agreements, and hazardous wastes being reclaimed before use by the reclaimer—the situations that would have been conditionally exempt under the proposal. (See Appendix A.)

Equally important, the Agency already has determined that it is necessary to regulate hazardous waste storage in order to protect human health and the environment, and has also determined that regulations are needed to prevent the "uncontrolled release of hazardous waste constituents into the environment." See 46 FR 2802, 2807 (January 12, 1981). These prior findings are relevant to the question of regulating hazardous waste storage before recycling. There is a risk, as stated above, that spills and leaks of hazardous waste will occur, even if the wastes eventually will be recycled. Spills and leaks are the principal example of uncontrolled hazardous waste releases from storage and thus ordinarily require regulatory control. The Agency is persuaded that its existing findings are valid for hazardous wastes stored before recycling except in those situations in which wastes are so economically valuable that there is an economic imperative to avoid release.

The Agency thus finds that the factual basis for most of the conditional exemptions in the proposal was not justified, and that the Agency's general findings as to the need to control hazardous waste storage are valid for these recycling situations. Hazardous wastes stored before reclamation—even where there is minimal risk of overaccumulation—still can present significant potential for harm to human health and the environment if mismanaged, and market mechanisms are insufficient to prevent mismanagement from occurring. Regulation thus is called for.

In determining the level of regulation to adopt for those facilities which would have been conditionally exempt, the Agency is guided by the principle that the paramount and overriding statutory objective of RCRA is protection of

human health and the environment. The statutory policy of encouraging recycling is secondary and must give way if it is in conflict with the principal objective. See 48 FR 14474/1, 14492/2; see also H.R. Rep. No. 98-198, *supra*, at 46.* We accordingly have determined that, for the most part, the conditional exemptions we proposed were unwarranted and facilities recycling in these ways should be subject to regulation under the Subtitle C rules.

III. An Overview of the Final Definition of Solid Waste

A. Materials That Are Solid Wastes

The revised definition of solid waste states that any material that is abandoned by being disposed of, burned, or incinerated—or stored, treated, or accumulated before or in lieu of these activities—is a solid waste. The remainder of the definition states which materials are wastes when recycled.

The amended definition adopts the approach that for secondary materials, being recycled, one must know both what the material is and how it is being recycled before determining whether or not it is a Subtitle C waste. This approach differs sharply from the existing definition (40 CFR 261.2), which states that all sludges, and virtually all other secondary materials (i.e. all those that are sometimes discarded by anyone managing them (see fn. 2 above), are wastes no matter how they are recycled. In understanding the revised definition, therefore, one must consider the types of secondary materials in conjunction with types of recycling practices.

1. *Types of Recycling Activities That Are Within The Agency's Subtitle C Jurisdiction.* The definition states that four types of recycling activities are within EPA's jurisdiction:

- *Use constituting disposal.* This activity involves directly placing wastes or waste-derived products (a product that contains a hazardous waste as an ingredient) onto the land. Extending jurisdiction to waste-derived products placed on the land represents a change from the proposal:

- *Burning waste or waste fuels for energy recovery, or using wastes to produce a fuel*

- *Reclamation.* This activity involves the regeneration of wastes or the recovery of material from wastes:

*The Agency also does not believe that hazardous waste recycling will be discouraged in those situations that we now intend to regulate. Not only do the incremental costs of regulation appear to be minimal (see Part IV of this preamble), but regulation can actually encourage recycling. See 45 FR 33092 (May 18, 1980) and Section II.A. above.

- *Speculative accumulation.* This activity involves either accumulating wastes that are potentially recyclable, but for which no recycling market (or no feasible recycling market) exists, or accumulating wastes before recycling unless 75% of the accumulated material is recycled during a one-year period. (This provision now includes the activity referred to in the proposal as overaccumulation.)

2. *Types of Secondary Materials That Are Within The Agency's Subtitle C Jurisdiction.* These categories of recycling activities then are divided further according to the type of secondary material involved—spent materials, sludges, by-products, or commercial chemical products (a division present in the existing regulations—see 40 CFR 261.2(b)(1)(3)). We also have clarified the proposal by adding a new category of secondary material—scrap metal.

"Spent materials" are materials that have been used and are no longer fit for use without being regenerated, reclaimed, or otherwise re-processed. Examples are spent solvents; spent activated carbon; spent catalysts; and spent acids.

"Sludges" are defined in RCRA and the implementing regulations as residues from treating air or wastewater, or other residues from pollution control operations. (See RCRA section 1004(26)(A) and 40 CFR 260.10.)

"By-products" are defined essentially the same way as in the existing definition to encompass those residual materials resulting from industrial, commercial, mining, and agricultural operations that are not primary products, are not produced separately, and are not fit for a desired end use without substantial further processing. The term includes most secondary materials that are not spent materials or sludges. Examples are process residues from manufacturing or mining processes, such as distillation column residues or mining slags.

"Commercial chemical products" are the commercial chemical products and intermediates, off-specification variants, spill residues, and container residues listed in 40 CFR 261.33. Although these materials ordinarily are not wastes when recycled (see 45 FR 78540-541, November 25, 1980), we are including them as wastes when they are recycled in ways that differ from their normal use, namely, when they are used in a manner constituting disposal, or when they are burned for energy recovery, (assuming these materials are neither a pesticide nor a commercial fuel).



ification requirements of RCRA. In this part:

A defines the terms and "hazardous waste", wastes which are excluded under parts 262 and 270 and establishes management requirements for waste produced by conditions of small quantity general waste which is re-

sets forth the criteria to identify characteristics of waste and to list particulates.

Identifies characteristics of waste.

Lists particular hazard-

Definition of solid waste. This part applies only to hazardous wastes for purposes of implementing RCRA. For example, it applies to materials (such as scrap, paper, textiles, or other otherwise hazardous waste) that are recycled.

Identifies only some of those which are solid wastes under sections 104(3) of RCRA. A material is not a hazardous waste if it is still in this part, is still a hazardous waste for sections 104(3) of RCRA.

Sections 3007 and 3008 of RCRA. Reason to believe that it may be a solid waste under section 1004(27) of RCRA. Hazardous waste within section 1004(5) of RCRA;

Section 7003, the tests are established. Purposes of §§261.2 and

"Material" is any material used and as a result it can no longer serve the purpose for which it was produced.

It has the same meaning as in this chapter;

"Product" is a material that is a primary product of a process and is not solely or

separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(5) A material is "used or reused" if it is either:

(i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(6) "Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(7) A material is "recycled" if it is used, reused, or reclaimed.

(8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each ma-

terial of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under §261.4(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983; 50 FR 663, Jan. 4, 1985; 51 FR 10174, Mar. 24, 1986; 51 FR 40638, Nov. 7, 1986]

§261.2 Definition of solid waste.

(a)(1) A *solid waste* is any discarded material that is not excluded by §261.4(a) or that is not excluded by variance granted under §§260.30 and 260.31.

(2) A *discarded material* is any material which is:

(i) *Abandoned*, as explained in paragraph (b) of this section; or

(ii) *Recycled*, as explained in paragraph (c) of this section; or

(iii) Considered *inherently waste-like*, as explained in paragraph (d) of this section.

(b) Materials are solid waste if they are abandoned by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(c) Materials are solid wastes if they are recycled—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section.

(1) *Used in a manner constituting disposal.* (i) Materials noted with a "*" in Column 1 of Table I are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in

which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) **Burning for energy recovery.** (i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

- (A) Burned to recover energy;
- (B) Used to produce a fuel or are otherwise contained in fuels (in which

cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are themselves fuels.

(3) **Reclaimed.** Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed.

(4) **Accumulated speculatively.** Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (§ 261.2(c)(1))	Energy recovery/fuel (§ 261.2(c)(2))	Reclamation (§ 261.2(c)(3))	Speculative accumulation (§ 261.2(c)(4))
	(1)	(2)	(3)	(4)
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR part 261.31 or 261.32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	(*)
By-products (listed in 40 CFR part 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)
Scrap metal	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" are defined in § 261.1.

(d) **Inherently waste-like materials.** The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subparts C or D of this part, except for brominated material that meets the following criteria:

- (i) The material must contain a bromine concentration of at least 45%; and
- (ii) The material must contain less than a total of 1% of toxic organic compounds listed in appendix VIII; and
- (iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(3) The Administrator will use the following criteria to add wastes to that list:

- (i)(A) The materials are ordinarily disposed of, burned, or incinerated; or
- (B) The materials contain toxic constituents listed in appendix VIII of part

261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) **Materials that are not solid waste when recycled.** (1) Materials are not solid wastes when they can be shown to be recycled by being:

- (i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or
- (ii) Used or reused as effective substitutes for commercial products; or
- (iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1) (i) through (iii) of this section):

- (i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or
- (ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or
- (iii) Materials accumulated speculatively; or
- (iv) Materials listed in paragraphs (d)(1) and (d)(2) of this section.

(f) **Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.** Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

[50 FR 664, Jan. 4, 1985, as amended at 50 FR 33542, Aug. 20, 1985; 56 FR 7206, Feb. 21, 1991; 56 FR 32688, July 17, 1991; 56 FR 42512, Aug. 27, 1991; 57 FR 38564, Aug. 25, 1992; 59 FR 49042, Sept. 19, 1994]

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

- (1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and
- (2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in subpart C except that any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under § 261.4(b)(7) and any other solid waste

exhibiting a characteristic of hazardous waste under subpart C of this part only if it exhibits a characteristic that would not have been exhibited by excluded waste alone if such mixture had not occurred or if it continues to exhibit any of the characteristics prohibited by the non-excluded waste prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration of any contaminant listed in table § 261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste to mixture.

(ii) It is listed in subpart D of this part and has not been excluded from the lists in subpart D of this part under §§ 260.20 and 260.22 of this chapter.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part, unless the resultant mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part, or unless the solid waste is excluded from regulation under § 261.4(b)(7) and the resultant mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part which the hazardous waste in subpart D of this part was listed. (However, nonwastewater mixtures are subject to the requirements of part 261 of this chapter, even if they do not exhibit a characteristic at the point of land disposal).

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in subpart D of this part and has not been excluded from paragraph (a)(2) of this section under §§ 260.20 and 260.22 of this chapter; however, the following characteristics of solid wastes and hazardous wastes listed in subpart D of this part are not hazardous wastes (except by application of paragraph (a)(2) (i) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which

solvents and gasoline (to name only some of the more valuable commodities) from product storage tanks, showing the risk of spillage of stored commodities. The recent addition of Subtitle I to RCRA to control leaks from underground product storage tanks confirms that the risk of harm from spillage is significant. Indeed, there have been a number of instances of groundwater contamination caused by improper storage of hazardous wastes awaiting reclamation by their generator, hazardous wastes being reclaimed pursuant to batch tolling agreements, and hazardous wastes being reclaimed before use by the reclaimer—the situations that would have been conditionally exempt under the proposal. (See Appendix A.)

Equally important, the Agency already has determined that it is necessary to regulate hazardous waste storage in order to protect human health and the environment, and has also determined that regulations are needed to prevent the "uncontrolled release of hazardous waste constituents into the environment." See 46 FR 2802, 2807 (January 12, 1981). These prior findings are relevant to the question of regulating hazardous waste storage before recycling. There is a risk, as stated above, that spills and leaks of hazardous waste will occur, even if the wastes eventually will be recycled. Spills and leaks are the principal example of uncontrolled hazardous waste releases from storage and thus ordinarily require regulatory control. The Agency is persuaded that its existing findings are valid for hazardous wastes stored before recycling except in those situations in which wastes are so economically valuable that there is an economic imperative to avoid release.

The Agency thus finds that the factual basis for most of the conditional exemptions in the proposal was not justified, and that the Agency's general findings as to the need to control hazardous waste storage are valid for these recycling situations. Hazardous wastes stored before reclamation—even where there is minimal risk of overaccumulation—still can present significant potential for harm to human health and the environment if mismanaged, and market mechanisms are insufficient to prevent mismanagement from occurring. Regulation thus is called for.

In determining the level of regulation to adopt for those facilities which would have been conditionally exempt, the Agency is guided by the principle that the paramount and overriding statutory objective of RCRA is protection of

human health and the environment. The statutory policy of encouraging recycling is secondary and must give way if it is in conflict with the principal objective. See 48 FR 14474/1, 14492/2; see also H.R. Rep. No. 98-198, *supra*, at 46.* We accordingly have determined that, for the most part, the conditional exemptions we proposed were unwarranted and facilities recycling in these ways should be subject to regulation under the Subtitle C rules.

III. An Overview of the Final Definition of Solid Waste

A. Materials That Are Solid Wastes

The revised definition of solid waste states that any material that is abandoned by being disposed of, burned, or incinerated—or stored, treated, or accumulated before or in lieu of these activities—is a solid waste. The remainder of the definition states which materials are wastes when recycled.

The amended definition adopts the approach that for secondary materials being recycled, one must know both what the material is and how it is being recycled before determining whether or not it is a Subtitle C waste. This approach differs sharply from the existing definition (40 CFR 261.2), which states that all sludges, and virtually all other secondary materials (i.e. all those that are sometimes discarded by anyone managing them (see fn. 2 above)), are wastes no matter how they are recycled. In understanding the revised definition, therefore, one must consider the types of secondary materials in conjunction with types of recycling practices.

1. *Types of Recycling Activities That Are Within The Agency's Subtitle C Jurisdiction.* The definition states that four types of recycling activities are within EPA's jurisdiction:

- *Use constituting disposal.* This activity involves directly placing wastes or waste-derived products (a product that contains a hazardous waste as an ingredient) onto the land. Extending jurisdiction to waste-derived products placed on the land represents a change from the proposal:

- *Burning waste or waste fuels for energy recovery, or using wastes to produce a fuel*

- *Reclamation.* This activity involves the regeneration of wastes or the recovery of material from wastes:

*The Agency also does not believe that hazardous waste recycling will be discouraged in those situations that we now intend to regulate. Not only do the incremental costs of regulation appear to be minimal (see Part IV of this preamble), but regulation can actually encourage recycling. See 45 FR 33092 (May 19, 1980) and Section II.A. above.

- *Speculative accumulation.* This activity involves either accumulating wastes that are potentially recyclable, but for which no recycling market (or no feasible recycling market) exists, or accumulating wastes before recycling unless 75% of the accumulated material is recycled during a one-year period. (This provision now includes the activity referred to in the proposal as overaccumulation.)

2. *Types of Secondary Materials That Are Within The Agency's Subtitle C Jurisdiction.* These categories of recycling activities then are divided further according to the type of secondary material involved—spent materials, sludges, by-products, or commercial chemical products (a division present in the existing regulations—see 40 CFR 261.2(b)(1)(3)). We also have clarified the proposal by adding a new category of secondary material—scrap metal.

"Spent materials" are materials that have been used and are no longer fit for use without being regenerated, reclaimed, or otherwise re-processed. Examples are spent solvents, spent activated carbon, spent catalysts, and spent acids.

"Sludges" are defined in RCRA and the implementing regulations as residues from treating air or wastewater, or other residues from pollution control operations. (See RCRA section 1004(26)(A) and 40 CFR 260.10.)

"By-products" are defined essentially the same way as in the existing definition to encompass those residual materials resulting from industrial, commercial, mining, and agricultural operations that are not primary products, are not produced separately, and are not fit for a desired end use without substantial further processing. The term includes most secondary materials that are not spent materials or sludges. Examples are process residues from manufacturing or mining processes, such as distillation column residues or mining slags.

"Commercial chemical products" are the commercial chemical products and intermediates, off-specification variants, spill residues, and container residues listed in 40 CFR 261.33. Although these materials ordinarily are not wastes when recycled (see 45 FR 78540-541, November 25, 1980), we are including them as wastes when they are recycled in ways that differ from their normal use, namely, when they are used in a manner constituting disposal, or when they are burned for energy recovery, (assuming these materials are neither a pesticide nor a commercial fuel).



and storage requirements apply to those hazardous waste fuels containing listed wastes and sludges that are shipped from the generator to a burner or blender. See 50 FR 632. If a generator of a listed hazardous waste or sludge blends or processes these wastes and sends them to a burner or a waste fuel processor, the blended waste fuels are subject to regulation until burned or reprocessed by the fuel processor (except as described earlier). Thus, there is a conflict in the regulation, because transporters taking hazardous waste fuels from generators to burners or waste fuel processors are regulated. See § 266.33(a). To correct this conflict, we are revising paragraph (b) of § 266.33 to read as follows: "Transporters of hazardous waste fuel are not presently subject to regulation when they transport hazardous waste fuel from marketers, who are not also the generators, to burners or other marketers."

J. Regulatory Status of Non-Listed Commercial Chemical Products

Under the final rules, commercial chemical products and intermediates, off-specification variants, spill residues, and container residues listed in 40 CFR 261.33 are not considered solid wastes when recycled except when they are recycled in ways that differ from their normal use—namely, when they are burned for energy recovery or used to produce a fuel. A number of questions have been raised as to the regulatory status of commercial chemical products that are not listed in § 261.33 but exhibit one or more of the hazardous waste characteristics (*i.e.*, ignitability, corrosivity, reactivity, and extraction procedure (EP) toxicity).

Although we do not directly address non-listed commercial chemical products in the rules, their status would be the same as those that are listed in § 261.33—That is, they are not considered solid wastes when recycled except when they are recycled in ways that differ from their normal manner of use. This is the same relationship that exists between discarded commercial chemical products that are listed in § 261.33, and those that exhibit a characteristic of hazardous waste. We believe this point is implicit in the rules, as it is implicit in existing §§ 261.3 and 261.33.

K. Regulatory Impact

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirements of a Regulatory Impact Analysis. Since this notice simply makes typographical and technical corrections

and does not change the previously approved final rule, this rule is not a major rule and, therefore, no Regulatory Impact Analysis was conducted.

List of Subjects

40 CFR Part 260

Administrative practice and procedure. Hazardous materials. Waste treatment and disposal.

40 CFR Part 261

Hazardous materials. Waste treatment and disposal. Recycling.

40 CFR Part 266

Hazardous materials.

Dated: April 2, 1985.

Jack W. McGraw,

Assistant Administrator.

For the reasons set out in the preamble, Title 40 of the Code of Federal Regulations is amended as follows:

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

1. The authority citation for Part 260 reads as follows:

Authority: Secs. 1008, 2002(a), 3001 through 3007, and 3010 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6908, 6912(a), 6921 through 6927, and 6930].

2. In § 260.30, paragraph (a) is revised to read as follows:

§ 260.30 Variance from classification as a solid waste.

(a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in § 261.1(c)(8) of this chapter);

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

3. The authority citation for Part 261 reads as follows:

Authority: Secs. 1008, 2002(a), 3001, and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6908, 6912(a), 6921, and 6922].

4. Section 261.3 is amended by revising paragraph (c)(2) to read as follows:

§ 261.3 Definition of hazardous waste.

(c) * * *

(2)(i) Except as otherwise provided in paragraph (c)(2)(ii) of this section, any solid waste generated from the treatment, storage, or disposal of a

hazardous waste, including any spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: (A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).

5. Section 261.4 is amended by revising paragraph (a)(8) to read as follows:

§ 261.4 Exclusions.

(a) * * *

(8) Pulping liquors (*i.e.*, black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in § 261.1(c) of this chapter.

6. Section 261.5 is amended by revising the second sentence in paragraph (c) to read as follows:

§ 261.5 Special requirements for hazardous waste generated by small quantity generators.

(c) * * * Hazardous waste that is subject to the requirements of § 261.6 (b) and (c) and Subparts C, D, and F of Part 266 is included in the quantity determination of this section and is subject to the requirements of this section.

PART 266—STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

7. The authority citation for Part 266 reads as follows:

Authority: Secs. 1008, 2002(a), and 3004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6908, 6912(a), and 6924].

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for revealing proprietary data. In the face of these difficulties, some commenters went so far as to suggest that generators not be responsible for complying with the regulations unless they have actual knowledge of the product's chemical composition.

The Agency is taking a number of steps to deal with this problem. First, we are now preparing a directory of chemical products⁶ which are hazardous wastes when discarded. The Directory will include generic names, other names by which the chemicals are known (e.g., myrbane oil for nitrobenzene) and the names of trade products which are regulated under § 261.33 as well as the applicable hazardous waste number. The Directory will be advisory, not part of the regulation itself, so that a defendant in an enforcement proceeding will still be able to show that a waste listed in the Directory is not a waste listed in § 261.33. By the same token, absence of a product name from the Directory is not a defense. The Agency will expand the Directory over time to try and provide as complete a list as possible.

A second form of Agency guidance is the recently-implemented RCRA Industry Assistance Hotline. Persons unsure whether the trade name product they are discarding is a hazardous waste may call this toll-free number and provide the name of the product. The Agency will then provide advice as to whether the product is a hazardous waste and its basis for the determination. As with the Directory, the Agency's response will be advisory, not a formal regulatory action. The hotline telephone number is 800-424-9346 (in Washington, D.C., 554-1404).

We also expect that persons unsure of the hazardousness of a given product will call the manufacturer of the product. Although manufacturers may not want to give out the formula for their products, the Agency believes it is reasonable to expect suppliers to inform customers if disposal of the product is regulated under either § 261.33(e) or § 261.33(f). Customers of course have the option of refusing to deal further with a supplier who will not divulge this information.

We disagree strongly with the suggestion that generators lacking actual knowledge of a product's chemical composition remain unregulated. Such a standard provides a strong incentive for generators not to determine whether discarded products are hazardous

wastes. One purpose of RCRA is to require closer attention and inquiry into the potentially hazardous nature of discarded materials, and generators of discarded trade products are no exception. Suggestions for further means of dealing with the question of identity are, however, solicited.

IV. Interpretative Issues

As noted above, most interpretative questions involving § 261.33 will not be resolved until publication of a forthcoming RIM. Certain questions, however, can be dealt with in this preamble.

A. Are solid wastes that contain one or more of the chemicals listed in § 261.33 hazardous wastes by virtue of containing these materials?

Solid wastes which simply contain one of the chemicals listed in § 261.33 are not thereby hazardous. Where EPA intends to list such wastes, it will do so by listing them in §§ 261.31 and 261.32. This intention is in fact clearly expressed in the comment to § 261.33(d) which is part of the promulgated regulation. The purpose of § 261.33 is to regulate only the listed chemical products and intermediates and their trade name equivalents (and certain off-specification variants, emptied containers⁷ and spill residues and debris thereof) as hazardous wastes when they are discarded or intended to be discarded.

However, when a solid waste is mixed with one of these discarded materials, the resulting mixture is a hazardous waste until delisted (with certain exceptions set forth in § 261.3(h)). See § 261.3(a)(2)(ii). As set out in § 261.3(b)(2), the solid waste becomes a hazardous waste when the mixing of the § 261.33 chemical takes place either as an act of discarding that chemical or the time the chemical is intended for later discard (i.e., at the time the § 261.33 substance becomes a hazardous waste).

There are many situations where a solid waste becomes a hazardous waste by virtue of the actual or intended discarding of materials listed in § 261.33. Some of these situations are:

1. Where excess, expired or otherwise unwanted commercial chemical products or manufacturing chemical intermediates are discarded by discharging them into a wastewater stream or are discarded by being mixed into other solid wastes.

2. Where off-specification materials that, if they met specification, would be

commercial chemical products or manufacturing chemical intermediates, are discarded by being discharged into wastewater stream or discarded by being mixed into other solid wastes.

Where contaminated residues or debris from the clean-up of spills of listed chemicals are discarded by being mixed into other solid wastes.

B. Are the commercial products and manufacturing chemical intermediates listed in § 261.33 subject to regulation if they are used, reused, recycled or reclaimed in lieu of being discarded?

No. A commercial chemical product or manufacturing chemical intermediate listed in § 261.33 is a hazardous waste only if discarded or intended to be discarded. If it continues to be used or sold, it is not being discarded and therefore is not a hazardous waste. If it is an off-specification material and is reprocessed, recycled or reclaimed it is not being discarded and therefore is not a hazardous waste. Thus the provisions of § 261.6(b) are not intended to apply to reuses of § 261.33 materials, since in such cases the materials are never discarded. The reference in § 261.6(b) to wastes "listed in subpart D" is confusing. Wastes listed in §§ 261.31 and 261.32 are the only wastes intended to be included.

There are numerous situations where the above interpretations apply. Some of these are:

1. Where a customer receives an off-specification product listed in § 261.33 and returns it to the manufacturer for reprocessing, the product is not being discarded and is not a hazardous waste.

2. Where a commercial product becomes excess inventory or outlives its expiration date in a wholesale or retail outlet or in the hands of a user and the supplier takes the product back for resale or reprocessing, the product is not being discarded by the wholesaler, retailer or user and is not a hazardous waste.

3. Where there is breakage of containers holding § 261.33 chemicals and the supplier takes back the affected chemicals, including recovered spilled chemicals, for repackaging or reprocessing, the chemicals are not being discarded and are not hazardous wastes. If, however, some of the spilled chemicals are discarded or intended to be discarded because they cannot be returned (e.g., they are mixed with dirt or other materials), these spilled chemicals (and associated spill cleanup residues and debris) are hazardous wastes.

These are examples of common practice which EPA believes should be encouraged because they avoid discarding valuable materials and

⁶SW-664, "Directory of Trade Name Products and Synonyms" will be available from Mr. Ed Cox, Solid Waste Information, U.S. Environmental Protection Agency, 26 West St. Clair St., Cincinnati, Ohio 45208 (telephone number 513-694-5362).

⁷Regulation of containers which formerly held § 261.33 chemicals is addressed elsewhere in this Part X of the Federal Register.

have the generic name listed in paragraph (e) or (f) of this section.

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraph (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraph (e) or (f), such waste will be listed in either § 261.31 or § 261.32 or will be identified as a hazardous waste by the characteristics set forth in subpart C of this part.]

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to be the small quantity exclusion defined in § 261.5(e).

[Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Chemical abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	82-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone.
P004	308-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20650-73-8	Aluminum phosphide (R,T)
P007	2783-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H ₃ AsO ₄
P012	1327-53-3	Arsenic oxide As ₂ O ₃
P011	1303-28-2	Arsenic oxide As ₂ O ₅
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	892-42-2	Arsine, diethyl-
P038	696-28-6	Arsinous dichloride, phenyl-
P054	151-56-4	Azirdine
P057	75-55-8	Azirdine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122-09-8	Benzenethanamine, alpha, alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1), 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-(methylamino)carbonyl oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN) ₂

Hazardous waste No.	Chemical abstracts No.	
P189	55285-14-8	Car
P191	644-64-4	Car
P192	119-38-0	Car
P190	1129-41-5	Car
P127	1563-66-2	Car
P022	75-15-0	Car
P095	75-44-5	Car
P189	55285-14-8	Car
P023	107-20-0	Chl
P024	106-47-8	p-C
P026	5344-82-1	1-(
P027	542-76-7	3-C
P029	544-92-3	Cop
P029	544-92-3	Cop
P202	64-00-8	m-C
P030	Cya
P031	460-19-5	Cya
P033	506-77-4	Cya
P033	506-77-4	Cya
P034	131-86-5	2-C
P016	542-88-1	Dich
P036	696-28-6	Dich
P037	60-57-1	Diet
P038	692-42-2	Diet
P041	311-45-5	Diet
P040	297-97-2	O,C
P043	55-91-4	Dis
P004	309-00-2	1,4
P060	465-73-6	1,4
P037	60-57-1	2,7
P051	72-20-8	2,7
P044	60-51-5	Dir
P046	122-09-8	alp
P191	644-64-4	Dir
P047	534-52-1	4,E
P048	51-28-5	2,4
P020	88-85-7	D,w
P085	152-16-9	D,w
P111	107-49-3	D,w
P039	298-04-4	Di
P049	541-53-7	Di
P185	26419-73-8	1,
P050	115-29-7	Er
P088	145-73-3	Er
P051	72-20-8	Er
P051	72-20-8	Er
P042	51-43-4	Er
P031	460-19-5	Ei
P194	23135-22-0	Ei
P086	18752-77-5	F
P101	107-12-	(
P054	151-56-	alp
P097	52-85-	
P056	7782-41-	
P057	640-19-	
P058	62-74-	
P198	23422-53-	
P197	17702-57-	
P085	628-86-	
P059	76-44-	
P062	757-58-4	
P116	79-19-6	+
P088	60-34-4	+
P063	74-90-8	+
P063	74-90-8	+

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T), unless otherwise designated and are

subject to the small quantity generator exclusion defined in § 261.5 (a) and (g).

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Chemical abstracts No.	Substance
U394	30558-43-1	A2213.
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	63-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2+) salt
U214	563-68-8	Acetic acid, thallium(1+) salt
see F027	93-76-6	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U005	75-05-6	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-6	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-6	Amiloride
U012	62-53-3	Aniline (I,T)
U136	75-60-6	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U365	2212-67-1	N-Azapine-1-carboxylic acid, hexahydro-, 3-ethyl ester.
U010	50-07-7	Azirino[2,3',3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[aminocarbonyloxy)methyl]-1,1a,2,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1alpha, 8beta, 8alpha, 8beta)]-
U280	101-27-9	Barban.
U278	22781-23-3	Bendiocarb.
U364	22961-82-6	Bendiocarb phenol.
U271	17804-35-2	Benomyl.
U157	56-40-6	Benz[aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-68-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U084	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	96-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis(2-chloro-
U222	636-21-6	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U036	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-65-3	Benzene, 1-bromo-4-phenoxy-
U036	305-03-3	Benzenebutanoic acid, 4-bis(2-chloroethyl)amino-
U037	106-90-7	Benzene, chloro-
U221	25376-46-6	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U089	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester

Hazardous waste No.	Chemical abstracts No.	
U107	117-84-0	1,2-B
U070	95-50-1	Benz
U071	541-73-1	Benz
U072	106-46-7	Benz
U060	72-54-8	Benz
U017	98-87-3	Benz
U223	26471-82-5	Benz
U239	1330-20-7	Benz
U201	108-46-3	1,3-B
U127	118-74-1	Benz
U056	110-82-7	Benz
U220	108-88-3	Benz
U106	121-14-2	Benz
U106	606-20-2	Benz
U055	98-82-8	Benz
U189	98-95-3	Benz
U183	608-93-5	Benz
U185	82-68-8	Benz
U020	98-09-9	Benz
U020	98-09-9	Benz
U207	95-94-3	Benz
U061	50-29-3	Benz
U247	72-43-5	Benz
U023	98-07-7	Benz
U234	99-35-4	Benz
U021	92-87-5	Benz
U202	81-07-2	1,2-B
U278	22781-23-3	1,3-B
U364	22961-82-6	1,3-B
U203	94-59-7	1,3-B
U141	120-58-1	1,3-B
U367	1563-38-8	7-Ben
U090	94-58-6	1,3-B
U064	189-55-9	Benzo
U248	81-81-2	2H-1-E
		of 0.
U022	50-32-8	Benzo
U197	106-61-4	p-Ben.
U023	98-07-7	Benz
U085	1464-53-5	2,2'-B
U021	92-87-5	[1,1'-E
U073	91-94-1	[1,1'-E
U091	119-90-4	[1,1'-E
U095	119-93-7	[1,1'-E
U401	97-74-5	Bi(d)
U400	120-54-7	Bi(p
U225	75-25-2	Brom
U030	101-55-3	4-Brc
U128	87-68-3	1,3-E
U172	924-16-3	1-Bu
U031	71-36-3	1-Bu
U159	78-93-3	2-Bu
U180	1338-23-4	2-P.
U053	4170-30-3	
U074	764-41-0	
U143	303-34-4	
U031	71-36-3	Ca
U392	2008-41-5	Ca
U136	75-60-5	Ca
U032	13785-19-0	Ca
U372	10605-21-7	Ca
U271	17804-35-2	Ca
U375	55406-53-6	Ca
U280	101-27-9	Ca
U238	51-79-6	Ca
U178	615-53-2	Ca
U373	122-42-9	Ce
U409	23584-05-8	Cf
U097	79-44-7	Cf

Furthermore the October 30, 1980 Federal Register goes on to explain that if hazardous wastes do remain in the unit for more than 90 days after cessation of operation, "...EPA believes that these wastes should be fully regulated and that the units should be regulated as storage facilities. Thus, at that point, the owner/operator of the unit would have to have interim status..." (45 FR 72024).

Source: Mike Petruska (202) 475-6676
Matt Straus (202) 475-8551
Research: Chris Bryant

8. Definition of Solid Waste and Reclamation

AUGUST '87
MRP

A distributor of a U-listed commercial chemical product finds that the product is no longer saleable (for example, it is past its shelf life). If the distributor ships it back to the manufacturer for reclamation, the material is not a solid waste under 40 CFR 261.2 because listed commercial chemical products are not solid wastes when reclaimed. However, in many cases the manufacturer will not know whether the material can be reclaimed until a sample is analyzed. Could the distributor ship the entire lot back to the manufacturer, while not knowing whether the material was a solid waste?

Yes. The distributor can ship the entire lot back to the manufacturer, while not knowing whether the material was a solid waste. There are no provisions in the RCRA regulations restricting shipments of commercial chemical products. Technically, it remains a commercial chemical product until such time as they are discarded or intended to be discarded (Section 261.2 and Section 261.33). This decision is made by the manufacturer. The U-listed commercial chemical product would still be shipped pursuant to applicable DOT and U.S. Postal Service regulations. It would not need to be manifested as a hazardous waste.

Source: Paul Mushovic (202) 475-7736
Research: Becky Cuthbertson

ification requirements of RCRA. In this part: (1) Defines the terms "hazardous waste", "solid waste", and "wastes which are excluded" under parts 262 and 270 and establishes the management requirements for wastes produced by certain processes; (2) Lists small quantity generators and their management requirements; (3) Lists hazardous waste which is re-

sets forth the criteria for identifying characteristics of hazardous waste and to list particular hazardous wastes.

(4) Identifies characteristics of hazardous waste.

(5) Lists particular hazardous

definition of solid waste. This part applies only to wastes that are hazardous for purposes of RCRA. For example, it does not apply to materials (such as scrap, paper, textiles, or other materials) that are not otherwise hazardous and are recycled.

(6) Identifies only some of the hazardous wastes which are solid wastes under sections 1004(27) and 1004(3) of RCRA. A material that is not a hazardous waste under this part, is still a hazardous waste for purposes of sections 3007 and 3008 of RCRA.

(7) Reason to believe that a material may be a solid waste under section 1004(27) of RCRA. A material that is a hazardous waste within the meaning of section 1004(5) of RCRA;

(8) The purposes of §§ 261.2 and 261.3 of section 7003, the purposes of which are established.

(9) The purposes of §§ 261.2 and 261.3 of section 7003, the purposes of which are established.

(10) The same meaning as in this chapter;

(11) A material that is a primary product of a process and is not solely or

separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(5) A material is "used or reused" if it is either:

(1) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(2) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(6) "Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(7) A material is "recycled" if it is used, reused, or reclaimed.

(8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each ma-

terial of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under § 261.4(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983; 50 FR 663, Jan. 4, 1985; 51 FR 10174, Mar. 24, 1986; 51 FR 40636, Nov. 7, 1986]

§ 261.2 Definition of solid waste.

(a)(1) A solid waste is any discarded material that is not excluded by § 261.4(a) or that is not excluded by variance granted under §§ 260.30 and 260.31.

(2) A discarded material is any material which is:

(i) Abandoned, as explained in paragraph (b) of this section; or

(ii) Recycled, as explained in paragraph (c) of this section; or

(iii) Considered inherently waste-like, as explained in paragraph (d) of this section.

(b) Materials are solid waste if they are abandoned by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(c) Materials are solid wastes if they are recycled—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section.

(1) Used in a manner constituting disposal. (i) Materials noted with a "*" in Column 1 of Table I are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in

which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) *Burning for energy recovery.* (i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

- (A) Burned to recover energy;
- (B) Used to produce a fuel or are otherwise contained in fuels (in which

cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in § 261.33 are not solid wastes if they are themselves fuels.

(3) *Reclaimed.* Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed.

(4) *Accumulated speculatively.* Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (§ 261.2(c)(1))	Energy recovery/fuel (§ 261.2(c)(2))	Reclamation (§ 261.2(c)(3))	Speculative accumulation (§ 261.2(c)(4))
	(1)	(2)	(3)	(4)
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR part 261.31 or 261.32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	(*)	(*)
By-products (listed in 40 CFR part 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	(*)	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)	(*)	(*)
Scrap metal	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" are defined in § 261.1.

(d) *Inherently waste-like materials.* The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subparts C or D of this part, except for brominated material that meets the following criteria:

- (i) The material must contain a bromine concentration of at least 45%; and
- (ii) The material must contain less than a total of 1% of toxic organic compounds listed in appendix VIII; and
- (iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(3) The Administrator will use the following criteria to add wastes to that list:

- (i)(A) The materials are ordinarily disposed of, burned, or incinerated; or
- (B) The materials contain toxic constituents listed in appendix VIII of part

261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) *Materials that are not solid waste when recycled.* (1) Materials are not solid wastes when they can be shown to be recycled by being:

- (i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or
- (ii) Used or reused as effective substitutes for commercial products; or
- (iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed.

The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1)(i) through (iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraphs (d)(1) and (d)(2) of this section.

(f) *Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.* Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

(ii) It is listed in subpart D of part and has not been excluded the lists in subpart D of this part §§ 260.20 and 260.22 of this chapter.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part, unless the resultant mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part, or unless the solid waste is excluded from regulation under § 261.4(b)(7) and the resultant mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part.

(iv) It is a mixture of solid waste and a hazardous waste listed in subpart D of this part was listed. (However, nonwastewater mixtures are subject to the requirements of part of this chapter, even if they do not exhibit a characteristic at the point of land disposal).

(v) It is a mixture of solid waste and one or more hazardous wastes listed in subpart D of this part and has not been excluded from paragraph (a)(2) of section under §§ 260.20 and 260.22 of this chapter; however, the following criteria of solid wastes and hazardous wastes listed in subpart D of this part are not hazardous wastes (except by application of paragraph (a)(2) (i) of this section) if the generator demonstrates that the mixture consists of wastewater the discharge of which

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

(2) It meets any of the following criteria:

- (i) It exhibits any of the characteristics of hazardous waste identified in subpart C except that any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under § 261.4(b)(7) and any other solid waste

exhibiting a characteristic of hazardous waste under subpart C of this part only if it exhibits a characteristic would not have been exhibited by excluded waste alone if such mixture had not occurred or if it continues to exhibit any of the characteristic prohibited by the non-excluded waste prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration of any contaminant listed in table § 261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste to mixture.

(ii) It is listed in subpart D of part and has not been excluded the lists in subpart D of this part §§ 260.20 and 260.22 of this chapter.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part, unless the resultant mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part, or unless the solid waste is excluded from regulation under § 261.4(b)(7) and the resultant mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part.

(iv) It is a mixture of solid waste and a hazardous waste listed in subpart D of this part was listed. (However, nonwastewater mixtures are subject to the requirements of part of this chapter, even if they do not exhibit a characteristic at the point of land disposal).

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

(2) It meets any of the following criteria:

- (i) It exhibits any of the characteristics of hazardous waste identified in subpart C except that any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under § 261.4(b)(7) and any other solid waste

	Hazard code
is from the pro-	(T)
er from the pro-	(C, T)
of methyl bro-	(T)
of explosives	(R)
and loading of	(R)
	(T)
	(R)
	(T)
	(T)
ustry	(T)
	(T)
ctric furnaces	(T)
within the iron	(C, T)
lowdown slurry	(T)
oundments at	(T)
down from pri-	(T)
	(T)
	(T)
This listing is	(T)
scrubber sys-	(T)
tem is taken. If	(T)
of the action	(T)
udge from sec-	(T)
inary pharma-	(T)
in the produc-	(T)
ions.	(T)
ction of veteri-	(T)
r washes and	(T)
of ink from pig-	(T)
	(T)
	(T)
d to, collecting	(T)
ry of coke by-	(T)
center tank tar	(T)
m the recovery	(T)
to, those gen-	(T)
ery of coke by-	(T)
itted to, inter-	(T)
-products pro-	(T)
re recovery of	(T)
	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K148	Residues from coal tar distillation, including but not limited to, still bottoms	(T)

[46 FR 4618, Jan. 16, 1981; 60 FR 7849, Feb. 9, 1995]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.32, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in § 261.2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate hav-

ing the generic name listed in paragraphs (e) or (f) of this section, unless the container is empty as defined in § 261.7(b) of this chapter.

[Comment: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, EPA considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.]

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would

comments on the question of alternative approaches in this area.

The following example illustrates how exclusion applies.

- A pulp and paper manufacturer generates black liquor, a potentially corrosive spent residue from the pulping process. Black liquor is sometimes stored in impoundments before being routed to boilers where it is burned to recover chemicals and energy. The chemicals are then reused in the original pulping process.

The black liquor would not be a waste for this purpose, since it is reclaimed at the plant site and the reclaimed product is reused within the original manufacturing process.

The following example shows how the various provisions dealing with reclamation operate in combination.

- Generator A generates a listed emission control dust that is placed in an on-site excavated ditch for holding until it can be re-smelted. To prevent wind dispersion, the dust is wetted down while in the ditch. The dust then is dried and placed back in the smelting process to recover metal values.

While the dusts are in the surface impoundment they are not being reclaimed and therefore are not necessarily solid wastes. The purpose of the wetting process is to hold the dusts in place, not to recover material values from the dusts or to facilitate later recovery of the metals (since the dusts could be smelted without being wetted first). In contrast, when wet sludges are dewatered in impoundments, recovery is occurring, since the sludges could not be recycled further without the dewatering step.

The dusts may or may not be deemed to be stored in an impoundment (assuming the ditch is an impoundment) before reclamation, depending on their disposition upon being removed from the impoundment. If the dusts are smelted at a primary smelter, they are not being reclaimed since they are substituting for raw material feedstocks. Thus, even though the materials would be stored in an impoundment, they would not be stored before reclamation and so would not be wastes.

On the other hand, if the metal values in the dust are recovered at a secondary smelting facility, the materials would be reclaimed and so would be wastes when stored in the impoundment. However, if the dust is returned to the original smelting process (primary or secondary), it would not be regulated while in the impoundment because the process is essentially a closed-loop.

5. *The Status of Reclaimed Products.* The Agency also has added language to § 261.3(c)(2) (the "derived from" rule) to

indicate that commercial products reclaimed from spent materials, listed sludges, and listed by-products—e.g., a reclaimed solvent—are not wastes and are not subject of regulation under RCRA. This proposed addition merely clarifies the existing regulations and does not represent a change in regulatory approach. However, this principle does not apply to reclaimed materials that are not ordinarily considered to be commercial products, such as wastewaters. These materials rarely are dealt with as products moving in commerce, and are often discharged, and so reasonably can be considered to remain wastes. In addition, we wish to make clear that waste-derived fuels are not products reclaimed from a hazardous waste and thus remain wastes. Our claim of jurisdiction over these materials is made explicit in proposed § 261.2(a)(2)(ii).

We also caution that waste materials do not become products if they are merely processed minimally—i.e., operations that leave materials unfit for use without further processing. For instance, a hazardous sludge remains a waste when it is dewatered and sent to a metal reclaimer or used in a manner constituting disposal. Similarly, a spent solvent that is processed by removing rocks and other debris, and then sent to be distilled, remains a waste.

F. Proposed §§ 261.2(a)(2)(iv) and 261.2(c): Wastes That Are Accumulated Speculatively

The next category of solid wastes is materials that are accumulated speculatively. Proposed § 261.2(c)(2) defines these as materials with recycling potential, that are accumulating with a legitimate expectation of eventual recycling but have never been recycled or cannot feasibly be recycled. An actual example is a generator that has accumulated emission control dust from steel production (Hazardous Waste KO61) for over eight years without being able to find a feasible means of recycling it, despite legitimate efforts. Over 40,000 tons are now piled in the open in an abandoned quarry near a drinking water source.

The Agency believes strongly that these types of materials are wastes, at least until a means of recycling is found. To hold otherwise simply invites unregulated accumulation of materials under the guise of being held for recycling. For this reason, the provision applies to all spent materials, sludges, and by-products.²³

²³The jurisdictional basis for this provision, as well as the following provision (materials being overaccumulated), rests on a footing different from

The Agency does not mean to include in this category materials actually recycled by other generators, such as fly ash. Because of their known recycling potential, these materials generally are not deemed immediately to be solid wastes, even if a generator is accumulating them without a known market. Instead, these materials will be considered solid wastes if insufficient amounts are recycled (see the following section). A rather narrow qualification to this is that generators must have some feasible way of recycling the material. An example would be an emission control dust used as an ingredient in an industrial process. If a generator is accumulating the dust with no feasible means of sending it to a user and no other immediately feasible means of recycling it, the generator would be deemed to be accumulating the material speculatively.

The regulatory status of § 261.33 commercial chemical products, off-specification variants, spill residues, and container residues under this provision, as well as under the next provision—accumulation without sufficient amounts being used, reused, or reclaimed—requires a bit more explanation. As described earlier, commercial chemical products are presently regulated as hazardous wastes when discarded or intended for discard, and not when recycled or intended for recycling (see 45 FR 78540). **Commercial chemical products that are being stored with recycling potential and with a legitimate expectation of recycling, therefore, are not intended for discard and thus are not subject to this provision.** (As already explained, however, we are proposing to define certain commercial chemical products destined for recycling by burning to recover energy or by direct land placement as solid wastes under other provisions of the revised definition.)

If, however, a recycling market does not develop and one is not expected within a reasonable time period, or if insufficient amounts of these materials are being recycled, we would consider these commercial chemical products as being stored for discard, and thus subject to regulatory control. We are not setting any time period for determining when these commercial chemical

the earlier provisions. Those provisions apply to materials actually being recycled. In contrast, proposed §§ 261.2(a)(2)(iv) and (v) apply to materials not being recycled, but for which recycling is eventually a possibility. Since the materials are not actually being recycled, and there is only a possibility of eventual recycling, there is no question that these materials are RCRA solid wastes.

which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) **Burning for energy recovery.** (i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels (in which

cases the fuel itself remains a solid waste).

(i) However, commercial chemical products listed in §261.33 are not solid wastes if they are themselves fuels.

(3) **Reclaimed.** Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed.

(4) **Accumulated speculatively.** Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (§261.2(c)(1))	Energy recovery/fuel (§261.2(c)(2))	Reclamation (§261.2(c)(3))	Speculative accumulation (§261.2(c)(4))
	(1)	(2)	(3)	(4)
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR part 261.31 or 261.32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	(*)
By-products (listed in 40 CFR part 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)
Scrap metal	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" are defined in §261.1.

(d) **Inherently waste-like materials.** The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subparts C or D of this part, except for brominated material that meets the following criteria:

(i) The material must contain a bromine concentration of at least 45%; and

(ii) The material must contain less than a total of 1% of toxic organic compounds listed in appendix VIII; and

(iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(3) The Administrator will use the following criteria to add wastes to that list:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in appendix VIII of part

261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) **Materials that are not solid waste when recycled.** (1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1) through (iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraphs (d)(1) and (d)(2) of this section.

(f) **Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.** Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

[50 FR 884, Jan. 4, 1985, as amended at 50 FR 33542, Aug. 20, 1985; 56 FR 7206, Feb. 21, 1991; 56 FR 32688, July 17, 1991; 56 FR 42512, Aug. 27, 1991; 57 FR 38564, Aug. 25, 1992; 59 FR 48042, Sept. 19, 1994]

§261.3 Definition of hazardous waste.

(a) A solid waste, as defined in §261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under §261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in subpart C except that any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under §261.4(b)(7) and any other solid waste

exhibiting a characteristic of hazardous waste under subpart C of this only if it exhibits a characteristic would not have been exhibited by excluded waste alone if such material had not occurred or if it continues to exhibit any of the characteristics prohibited by the non-excluded waste prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration of any contaminant listed in table §261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste to mixture.

(ii) It is listed in subpart D of this part and has not been excluded from the lists in subpart D of this part under §§260.20 and 260.22 of this chapter.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part, unless the mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part, or unless the solid waste is excluded from regulation under §261.4(b)(7) and the mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part in which the hazardous waste listed in subpart D of this part was listed. (However, nonwastewater mixtures are subject to the requirements of part of this chapter, even if they do not exhibit a characteristic at the point of land disposal).

(iv) It is a mixture of solid wastes one or more hazardous wastes listed in subpart D of this part and has not been excluded from paragraph (a)(2) of this section under §§260.20 and 260.22 of this chapter; however, the following mixtures of solid wastes and hazardous wastes listed in subpart D of this part are not hazardous wastes (except by application of paragraph (a)(2) (i) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which

for revealing proprietary data. In the face of these difficulties, some commenters went so far as to suggest that generators not be responsible for complying with the regulations unless they have actual knowledge of the product's chemical composition.

The Agency is taking a number of steps to deal with this problem. First, we are now preparing a directory of chemical products⁸ which are hazardous wastes when discarded. The Directory will include generic names, other names by which the chemicals are known (e.g., myrbane oil for nitrobenzene) and the names of trade products which are regulated under § 261.33 as well as the applicable hazardous waste number. The Directory will be advisory, not part of the regulation itself, so that a defendant in an enforcement proceeding will still be able to show that a waste listed in the Directory is not a waste listed in § 261.33. By the same token, absence of a product name from the Directory is not a defense. The Agency will expand the Directory over time to try and provide as complete a list as possible.

A second form of Agency guidance is the recently-implemented RCRA Industry Assistance Hotline. Persons unsure whether the trade name product they are discarding is a hazardous waste may call this toll-free number and provide the name of the product. The Agency will then provide advice as to whether the product is a hazardous waste and its basis for the determination. As with the Directory, the Agency's response will be advisory, not a formal regulatory action. The hotline telephone number is 800-424-9346 (in Washington, D.C., 554-1404).

We also expect that persons unsure of the hazardousness of a given product will call the manufacturer of the product. Although manufacturers may not want to give out the formula for their products, the Agency believes it is reasonable to expect suppliers to inform customers if disposal of the product is regulated under either § 261.33(e) or § 261.33(f). Customers of course have the option of refusing to deal further with a supplier who will not divulge this information.

We disagree strongly with the suggestion that generators lacking actual knowledge of a product's chemical composition remain unregulated. Such a standard provides a strong incentive for generators not to determine whether discarded products are hazardous

⁸SW-884, "Directory of Trade Name Products and Synonyms" will be available from Mr. Ed Cox, Solid Waste Information, U.S. Environmental Protection Agency, 26 West St. Clair St., Cincinnati, Ohio 45266 (telephone number 513-684-5362).

wastes. One purpose of RCRA is to require closer attention and inquiry into the potentially hazardous nature of discarded materials, and generators of discarded trade products are no exception. Suggestions for further means of dealing with the question of identity are, however, solicited.

IV. Interpretative Issues

As noted above, most interpretative questions involving § 261.33 will not be resolved until publication of a forthcoming RIM. Certain questions, however, can be dealt with in this preamble.

A. Are solid wastes that contain one or more of the chemicals listed in § 261.33 hazardous wastes by virtue of containing these materials?

Solid wastes which simply contain one of the chemicals listed in § 261.33 are not thereby hazardous. Where EPA intends to list such wastes, it will do so by listing them in §§ 261.31 and 261.32. This intention is in fact clearly expressed in the comment to § 261.33(d) which is part of the promulgated regulation. The purpose of § 261.33 is to regulate only the listed chemical products and intermediates and their trade name equivalents (and certain off-specification variants, emptied containers⁹ and spill residues and debris thereof) as hazardous wastes when they are discarded or intended to be discarded.

However, when a solid waste is mixed with one of these discarded materials, the resulting mixture is a hazardous waste until delisted (with certain exceptions set forth in § 261.5(h)). See § 261.3(a)(2)(ii). As set out in § 261.3(b)(2), the solid waste becomes a hazardous waste when the mixing of the § 261.33 chemical takes place either as an act of discarding that chemical or the time the chemical is intended for later discard (i.e., at the time the § 261.33 substance becomes a hazardous waste).

There are many situations where a solid waste becomes a hazardous waste by virtue of the actual or intended discarding of materials listed in § 261.33. Some of these situations are:

1. Where excess, expired or otherwise unwanted commercial chemical products or manufacturing chemical intermediates are discarded by discharging them into a wastewater stream or are discarded by being mixed into other solid wastes.

2. Where off-specification materials that, if they met specification, would be

⁹Regulation of containers which formerly held § 261.33 chemicals is addressed elsewhere in this Part X of the Federal Register.

commercial chemical products or manufacturing chemical intermediates, are discarded by being discharged into a wastewater stream or discarded by being mixed into other solid wastes.

Where contaminated residues or debris from the clean-up of spills of listed chemicals are discarded by being mixed into other solid wastes.

B. Are the commercial products and manufacturing chemical intermediates listed in § 261.33 subject to regulation if they are used, reused, recycled or reclaimed in lieu of being discarded?

No. A commercial chemical product or manufacturing chemical intermediate listed in § 261.33 is a hazardous waste only if discarded or intended to be discarded. If it continues to be used or sold, it is not being discarded and therefore is not a hazardous waste. If it is an off-specification material and is reprocessed, recycled or reclaimed it is not being discarded and therefore is not a hazardous waste. Thus the provisions of § 261.6(b) are not intended to apply to reuses of § 261.33 materials, since in such cases the materials are never discarded. The reference in § 261.6(b) to wastes "listed in subpart D" is confusing. Wastes listed in §§ 261.31 and 261.32 are the only wastes intended to be included.

There are numerous situations where the above interpretations apply. Some of these are:

1. Where a customer receives an off-specification product listed in § 261.33 and returns it to the manufacturer for reprocessing, the product is not being discarded and is not a hazardous waste.

2. Where a commercial product becomes excess inventory or outlives its expiration date in a wholesale or retail outlet or in the hands of a user and the supplier takes the product back for resale or reprocessing, the product is not being discarded by the wholesaler, retailer or user and is not a hazardous waste.

3. Where there is breakage of containers holding § 261.33 chemicals and the supplier takes back the affected chemicals, including recovered spilled chemicals, for repackaging or reprocessing, the chemicals are not being discarded and are not hazardous wastes. If, however, some of the spilled chemicals are discarded or intended to be discarded because they cannot be returned (e.g., they are mixed with dirt or other materials), these spilled chemicals (and associated spill cleanup residues and debris) are hazardous wastes.

These are examples of common practice which EPA believes should be encouraged because they avoid discarding valuable materials and

thereby conserve resources, while at the same time avoiding the potential hazards associated with discarding of hazardous chemicals. The above practices also avoid causing many thousands of wholesalers, retailers and users from becoming generators of hazardous wastes because they will be able to return the materials for reuse instead of possibly discarding them. The Agency believes that many of these persons will be unfamiliar or not well acquainted with the regulations and may fail to properly perform the responsibilities of a generator if they have to discard the materials.

It is quite likely that, in some cases, a manufacturer or supplier will find it necessary to discard some portion of the materials returned to him because he is unable to reprocess, repackage, resell or use it. Where this occurs, that portion which is discarded becomes a hazardous waste when it is discarded or when a decision is made to discard the material. In this situation the manufacturer or supplier is the generator of a hazardous waste because he is the "person . . . whose act . . . produces hazardous waste . . ." (see the definition of "generator" in § 260.10).

C. Are manufactured articles (such as battery and mercury vapor lights) that contain any of the chemicals listed in § 261.33 hazardous wastes by definition if they are discarded or intended to be discarded?

EPA intends that the materials listed in § 261.33 include only those commercial chemical products and manufacturing chemical intermediates that are known by the generic name of the chemicals listed in paragraphs (e) and (f) of that section. Manufactured articles that contain any of the chemicals listed in paragraphs (e) and (f) are rarely, if even, known by the generic name of the chemical(s) they contain and, therefore, are not covered by the § 261.33 listings. Should the Agency find it necessary to list any manufactured articles as hazardous wastes, it will initiate rulemaking to add these articles to § 261.33.

Date: November 20, 1980.

Douglas M. Costle,
Administrator.

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Title 40, Part 261 of the Code of Federal Regulations is amended as follows:

1. Revise § 261.33 to read as follows:

§ 261.33 Discarded commercial chemical products, off-specification species, containers, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraphs (e) or (f) of this section.

(c) Any container or inner liner removed from a container that has been used to hold any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) of this section, unless:

(1) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate; or

(2) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(3) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . . " refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraphs (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraphs (e) or (f), such waste will be listed in either §§ 261.31 or 261.32 or will be identified as a hazardous waste by

the characteristics set forth in Subpart C of this Part.]

(e) The commercial chemical products or manufacturing chemical intermediates, referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in § 261.5(e). [Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.] These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Substance
P023	Acetaldehyde, chloro-
P024	Acetamide, N-(aminomethyl)acetyl-
P027	Acetamide, 2-fluoro-
P028	Acetic acid, fluoro-, sodium salt
P029	Acetamide, N-(methylcarbamoyl)thio-, methyl ester
P001	3-(alpha-acetoxybenzyl)-4-hydroxycoumarin and salts
P025	1-Acetyl-2-thiourea
P003	Acrilan
P070	Adicarb
P004	Aldrin
P005	Allyl alcohol
P006	Aluminum phosphide
P007	5-Aminomethyl-3-isoxazolol
P008	4-aminopyridine
P009	Ammonium picrate (R)
P119	Ammonium vanadate
P010	Arsenic acid
P012	Arsenic (III) oxide
P011	Arsenic (V) oxide
P011	Arsenic pentoxide
P012	Arsenic trioxide
P036	Arsine, diethyl-
P034	Atridrine
P013	Barium cyanide
P034	Benzamine, 4-chloro-
P077	Benzamine, 4-nitro-
P026	Benzene, (chloromethyl)-
P042	1,2-Benzene-diol, 4-[1-hydroxy-2-(methylamino)ethyl]-
P014	Benzene-thiol
P025	Benzyl chloride
P015	Beryllium dust
P016	Bis(chloromethyl) ether
P017	Bromoacetone
P018	Bromoacetylene
P021	Calcium cyanide
P123	Camphene, octachloro-
P103	Carbamidocyanic acid
P022	Carbon bisulfide
P022	Carbon disulfide
P025	Carbonyl chloride
P033	Chlorine cyanide
P023	Chloroacetaldehyde
P024	p-Chloroaniline
P026	1-(4-Chlorophenyl)thiourea
P027	3-Chloropropionitrile
P029	Copper cyanides
P030	Cyanides (soluble cyanide salts), not elsewhere specified
P031	Cyanogen
P033	Cyanogen chloride
P036	Dichlorophenylarsine
P037	Dieldrin
P038	Diethylarsine
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorothioate
P041	Diethyl-p-nitrophenyl phosphite
P040	O,O-Diethyl O-cyrazinyl phosphorothioate
P043	Diisopropyl fluorophosphate
P044	Dimethoate
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-(methylamino)carbamyl ester
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate



Re-engineering RCRA For Recycling

Report and Recommendations Of the Definition of Solid Waste Task Force



Recycled/Recyclable
Printed on recycled paper that contains at
least 50% post-consumer recycled fiber

In addition, we recommend that material to be recycled must have a 100 percent turnover within the specified period. For a more complete description of this new requirement, see the discussion of speculative accumulation in Chapter 5 of this report.

We also recommend requiring the recycler to notify the State or EPA if secondary materials are stored on-site for more than 90 days. We believe that recycling facilities reclaiming secondary materials or storing them for extended periods have a greater potential for misclassifying treatment or disposal operations as recycling. Notification will allow regulatory agencies to quickly evaluate the need for more detailed follow-up at these facilities.

We realize that such a notification may pose difficulties for recyclers of characteristic by-products, since these materials are often difficult to distinguish from products and co-products. We will therefore evaluate whether to recommend notification for these facilities.

Recommendation #5: Facilities Exempt or Excluded From RCRA Regulation Must Perform and Keep on File a Status Determination.

We recommend requiring that any facility managing secondary materials determine whether it is subject to the RCRA regulations, including the new recycling system. If the facility determines that its activity is exempt or excluded from RCRA regulation, it must document its grounds for claiming any exemption or exclusion and keep this "status determination" on file. The facility will not be required to send the document to the State or EPA unless specifically requested to do so, but the document must be available for inspection if questions arise about the facility's status under RCRA. The status determination need not include the documentation required in responding to enforcement inquiries pursuant to 40 C.F.R. § 261.2(f). At the time of inspection, facilities would need to produce only a brief statement of the statutory or regulatory grounds for the claimed exemption or exclusion. Support for the determination could include a visual inspection of the units or processes claimed to be exempt.

Under our recommended approach, all exempt recyclers would be required to document the grounds for their claimed exemption, except those recycling unused products or scrap metal.⁷ We recognize that this may result in increased administrative costs for some facilities, especially large complex ones. We intend to explore whether this requirement can be implemented in a way that is manageable for such facilities, or whether the status determination requirement should be retained for all exempt facilities.

LIST OF SPECIFIC EXEMPTIONS

⁷The Agency has determined that unused products or recycling scrap metal should not be subject to Subtitle C requirements, and we have no information suggesting that these requirements should be changed.

For easy reference, we have developed the following list of the specific exemptions or exclusions for processes and materials, and a table that lists the criteria that apply to each.

Specific exemptions are:

- Unused products returned for reprocessing⁸
- Scrap metal⁸
- Processing of statutorily excluded materials (Bevill wastes⁹, i.e., specified wastes from the combustion of coal or other fossil fuels, certain ore and mineral mining wastes, and cement kiln dust).
- Secondary materials directly reused on-site as an ingredient in a production process or as an effective substitute for a commercial chemical product (current 40 C.F.R. § 261.2(e)(1)(i) and (ii), modified).
- Recycling of characteristic by-products, commercial chemical products, and container and spill residues of commercial chemical products. Commercial chemical products may be listed or characteristic; products may be technically "used," but no potential for contamination may exist through their use (e.g., encapsulated mercury and freon gases).
- Materials returned, without first being reclaimed, to any unit operation of the original process in which they were generated and used as a substitute for raw material feedstock (current 40 C.F.R. § 261.2(e)(1)(iii), modified). Original process may use raw or secondary materials as feedstock, since this kind of recycling resembles normal manufacturing more than waste management.
- Secondary materials reclaimed and returned to any unit operation of the original process from which they were generated, "closed-loop" (current 261.4(a)(8), modified). Recycling process must be enclosed in pipes or other closed conveyance systems, tanks, or containment buildings.
- Recovery of energy from "clean" waste-derived fuels (e.g., ethanol, methanol, hexane) (recommended new exemption).

⁸Excluded from all RCRA regulation.

⁹ The Bevill amendment to HSWA deferred regulation of these wastes until EPA studied them and determined whether they should be regulated as hazardous wastes. 42 U.S.C. 3001(b)(3)(A).

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K148	Residues from coal tar distillation, including but not limited to, still bottoms	(T)

[46 FR 4618, Jan. 16, 1981; 60 FR 7849, Feb. 9, 1995]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.32, see the List of CFR Sections Affected in the Finding Aids section of this volume.

	Hazard code
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§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in § 261.2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate hav-

ing the generic name listed in paragraphs (e) or (f) of this section, unless the container is empty as defined in § 261.7(b) of this chapter.

(Comment: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, EPA considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.)

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would

subject to the requirements of Parts 264 and 265.

C. Facilities Which Handle Only "Empty" Containers

Section 261.7 clarifies that container cleaning facilities which handle only "empty" containers are not currently subject to regulation unless they generate a waste that meets one of the characteristics in Subpart D. The mixture rule (§ 261.3(a)(2)(ii)) is inapplicable to any residues excluded from regulation by 261.7(a)(1), which would be the only residues with which a facility that handles only "empty" containers would deal.

D. Facilities Which Handle "Non-Empty" Containers

Any facility that handles any "non-empty" containers, i.e., containers which don't meet the definition of "empty" in 261.7(b), is managing regulated hazardous waste.

If the facility is the generator of the hazardous waste, i.e., the container residue, then the small quantity generator exclusion (§ 261.5) and the non-permitted accumulation time provision (§ 262.34) are available to the facility as a generator. Unless one of those provisions is applicable, though, all treatment, storage and disposal of regulated residues must be carried out in accordance with all applicable Part 264 or 265 standards at a facility with a permit or interim status. Note also that any regulated residue of a listed hazardous waste is subject to the mixture rule, so that rinse waters or solvents containing these residues also are considered hazardous wastes, unless they have been delisted in accordance with the procedures in §§ 260.20 and 260.22.

IX. Request for Comments

EPA invites comments on all aspects of the interim final amendments promulgated today and all of the issues discussed in this preamble. The Agency is providing a 90-day comment period and will carefully consider all comments received during that period.

X. Regulatory Impacts

The clarification to § 261.33(c) will bring a small number of additional persons under regulation as generators, transporters, or owners or operators of treatment, storage or disposal facilities. EPA is unable to estimate the number of such persons and thus cannot accurately estimate the increased impacts of the clarification.

The effect of the promulgation of

§ 261.7 is to reduce the overall costs, economic impact and reporting and recordkeeping impacts of EPA's hazardous waste management regulations. This is achieved by clarifying that container residues of hazardous waste, measuring an inch or less, except residues of certain acutely hazardous materials, are not subject to the regulations. The Agency is unable to estimate these cost and impact reductions.

Dated: November 19, 1980.

Douglas M. Costle,
Administrator.

For the reasons set out in the preamble, Title 40 of the Code of Federal Regulations is amended as follows:

1. Add the following new section to Part 261:

§ 261.7 Residues of hazardous waste in empty containers.

(a)(1) Any hazardous waste remaining in either (i) an empty container or (ii) an inner liner removed from an empty container, as defined in paragraph (b) of this section, is not subject to regulation under Parts 261 through 265, or Part 122 or 124 of this chapter or to the notification requirements of Section 3010 of RCRA.

(2) Any hazardous waste in either (i) a container that is not empty or (ii) an inner liner removed from a container that is not empty, as defined in paragraph (b) of this section, is subject to regulation under Parts 261 through 265, and Parts 122 and 124 of this chapter and to the notification requirements of Section 3010 of RCRA.

(b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified in § 261.33(c) of this chapter, is empty if:

(i) all wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

(ii) no more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner.

(2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(3) A container or an inner liner removed from a container that has held a hazardous waste identified in § 261.33(c) of this chapter is empty if:

(i) the container or inner liner has

been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(ii) the container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) in the case of a container inner liner that prevented commercial chemical product or manufacturing chemical intermediate with the container, has been re-

2. Revise the title of § 261.33 paragraph (c) to read as follows:

§ 261.33 Discarded commercial products, off-specification special container residues, and spill residues thereof.

The following materials or it hazardous wastes if and when discarded or intended to be discarded.

(c) Any residue remaining in a container or an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) of this section, unless the container is empty as defined in § 261.7(b)(9) of this chapter. [Comment: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, EPA considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.]

§ 265.173 [Amended]

3. Delete the first sentence of the "Comment" to § 265.173.

§ 262.51 [Amended]

4. Change the reference for triple rinsing in § 262.51 from "§ 262.33(c)" to "§ 261.7(b)(3)."

[FR Doc. 80-36682 Filed 11-24-80; 8:45 am]

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which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) **Burning for energy recovery.** (i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels (in which

cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are themselves fuels.

(3) **Reclaimed.** Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed.

(4) **Accumulated speculatively.** Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (§ 261.2(c)(1))	Energy recovery/fuel (§ 261.2(c)(2))	Reclamation (§ 261.2(c)(3))	Speculative accumulation (§ 261.2(c)(4))
	(1)	(2)	(3)	(4)
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR part 261.31 or 261.32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	(*)	(*)
By-products (listed in 40 CFR part 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	(*)	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)	(*)	(*)
Scrap metal	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" are defined in §261.1.

(d) **Inherently waste-like materials.** The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subparts C or D of this part, except for brominated material that meets the following criteria:

(i) The material must contain a bromine concentration of at least 45%; and

(ii) The material must contain less than a total of 1% of toxic organic compounds listed in appendix VIII; and

(iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(3) The Administrator will use the following criteria to add wastes to that list:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in appendix VIII of part

261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) **Materials that are not solid waste when recycled.** (1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1) (i) through (iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraphs (d)(1) and (d)(2) of this section.

(f) **Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.** Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

[50 FR 684, Jan. 4, 1985, as amended at 50 FR 33542, Aug. 20, 1985; 56 FR 7205, Feb. 21, 1991; 56 FR 32688, July 17, 1991; 56 FR 42512, Aug. 27, 1991; 57 FR 38564, Aug. 25, 1992; 59 FR 49042, Sept. 19, 1994]

§261.3 Definition of hazardous waste.

(a) A solid waste, as defined in §261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under §261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in subpart C except that any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under §261.4(b)(7) and any other solid waste

exhibiting a characteristic of hazardous waste under subpart C of this part only if it exhibits a characteristic that would not have been exhibited by excluded waste alone if such mixture had not occurred or if it continues to exhibit any of the characteristics prohibited by the non-excluded waste prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration of any contaminant listed in table §261.24 that would not have been exceeded by the excluded waste if the mixture had not occurred. If the mixture continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste to mixture.

(ii) It is listed in subpart D of this part and has not been excluded from the lists in subpart D of this part under §§260.20 and 260.22 of this chapter.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part, unless the resultant mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part, or unless the solid waste is excluded from regulation under §261.4(b)(7) and the resultant mixture no longer exhibits a characteristic of hazardous waste identified in subpart C of this part, in which the hazardous waste listed in subpart D of this part was listed. (However, nonwastewater mixtures are subject to the requirements of part 261 of this chapter, even if they no longer exhibit a characteristic at the point of land disposal).

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in subpart D of this part and has not been excluded from paragraph (a)(2) of this section under §§260.20 and 260.22 of this chapter; however, the following mixtures of solid wastes and hazardous wastes listed in subpart D of this part are not hazardous wastes (except by application of paragraph (a)(2) (i) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which

for revealing proprietary data. In the face of these difficulties, some commenters went so far as to suggest that generators not be responsible for complying with the regulations unless they have actual knowledge of the product's chemical composition.

The Agency is taking a number of steps to deal with this problem. First, we are now preparing a directory of chemical products⁶ which are hazardous wastes when discarded. The Directory will include generic names, other names by which the chemicals are known (e.g., myrbane oil for nitrobenzene) and the names of trade products which are regulated under § 261.33 as well as the applicable hazardous waste number. The Directory will be advisory, not part of the regulation itself, so that a defendant in an enforcement proceeding will still be able to show that a waste listed in the Directory is not a waste listed in § 261.33. By the same token, absence of a product name from the Directory is not a defense. The Agency will expand the Directory over time to try and provide as complete a list as possible.

A second form of Agency guidance is the recently implemented RCRA Industry Assistance Hotline. Persons unsure whether the trade name product they are discarding is a hazardous waste may call this toll-free number and provide the name of the product. The Agency will then provide advice as to whether the product is a hazardous waste and its basis for the determination. As with the Directory, the Agency's response will be advisory, not a formal regulatory action. The hotline telephone number is 800-424-9346 (in Washington, D.C., 564-1404).

We also expect that persons unsure of the hazardousness of a given product will call the manufacturer of the product. Although manufacturers may not want to give out the formula for their products, the Agency believes it is reasonable to expect suppliers to inform customers if disposal of the product is regulated under either § 261.33(e) or § 261.33(f). Customers of course have the option of refusing to deal further with a supplier who will not divulge this information.

We disagree strongly with the suggestion that generators lacking actual knowledge of a product's chemical composition remain unregulated. Such a standard provides a strong incentive for generators not to determine whether discarded products are hazardous

wastes. One purpose of RCRA is to require closer attention and inquiry into the potentially hazardous nature of discarded materials, and generators of discarded trade products are no exception. Suggestions for further means of dealing with the question of identity are, however, solicited.

IV. Interpretative Issues

As noted above, most interpretative questions involving § 261.33 will not be resolved until publication of a forthcoming RIM. Certain questions, however, can be dealt with in this preamble.

A. Are solid wastes that contain one or more of the chemicals listed in § 261.33 hazardous wastes by virtue of containing these materials?

Solid wastes which simply contain one of the chemicals listed in § 261.33 are not thereby hazardous. Where EPA intends to list such wastes, it will do so by listing them in §§ 261.31 and 261.32. This intention is in fact clearly expressed in the comment to § 261.33(d) which is part of the promulgated regulation. The purpose of § 261.33 is to regulate only the listed chemical products and intermediates and their trade name equivalents (and certain off-specification variants, emptied containers⁷ and spill residues and debris thereof) as hazardous wastes when they are discarded or intended to be discarded.

However, when a solid waste is mixed with one of these discarded materials, the resulting mixture is a hazardous waste until delisted (with certain exceptions set forth in § 261.5(h)). See § 261.3(a)(2)(ii). As set out in § 261.3(b)(2), the solid waste becomes a hazardous waste when the mixing of the § 261.33 chemical takes place either as an act of discarding that chemical or the time the chemical is intended for later discard (i.e., at the time the § 261.33 substance becomes a hazardous waste).

There are many situations where a solid waste becomes a hazardous waste by virtue of the actual or intended discarding of materials listed in § 261.33. Some of these situations are:

1. Where excess, expired or otherwise unwanted commercial chemical products or manufacturing chemical intermediates are discarded by discharging them into a wastewater stream or are discarded by being mixed into other solid wastes.

2. Where off-specification materials that, if they met specification, would be

commercial chemical products or manufacturing chemical intermediates, are discarded by being discharged into a wastewater stream or discarded by being mixed into other solid wastes.

Where contaminated residues or debris from the clean-up of spills of listed chemicals are discarded by being mixed into other solid wastes.

B. Are the commercial products and manufacturing chemical intermediates listed in § 261.33 subject to regulation if they are used, reused, recycled or reclaimed in lieu of being discarded?

No. A commercial chemical product or manufacturing chemical intermediate listed in § 261.33 is a hazardous waste only if discarded or intended to be discarded. If it continues to be used or sold, it is not being discarded and therefore is not a hazardous waste. If it is an off-specification material and is reprocessed, recycled or reclaimed it is not being discarded and therefore is not a hazardous waste. Thus the provisions of § 261.6(b) are not intended to apply to reuses of § 261.33 materials, since in such cases the materials are never discarded. The reference in § 261.6(b) to wastes "listed in subpart D" is confusing. Wastes listed in §§ 261.31 and 261.32 are the only wastes intended to be included.

There are numerous situations where the above interpretations apply. Some of these are:

1. Where a customer receives an off-specification product listed in § 261.33 and returns it to the manufacturer for reprocessing, the product is not being discarded and is not a hazardous waste.

2. Where a commercial product becomes excess inventory or outlives its expiration date in a wholesale or retail outlet or in the hands of a user and the supplier takes the product back for resale or reprocessing, the product is not being discarded by the wholesaler, retailer or user and is not a hazardous waste.

3. Where there is breakage of containers holding § 261.33 chemicals and the supplier takes back the affected chemicals, including recovered spilled chemicals, for repackaging or reprocessing, the chemicals are not being discarded and are not hazardous wastes. If, however, some of the spilled chemicals are discarded or intended to be discarded because they cannot be returned (e.g., they are mixed with dirt or other materials), these spilled chemicals (and associated spill cleanup residues and debris) are hazardous wastes.

These are examples of common practice which EPA believes should be encouraged because they avoid discarding valuable materials and

⁶SW-864. "Directory of Trade Name Products and Synonyms" will be available from Mr. Ed Cox, Solid Waste Information, U.S. Environmental Protection Agency, 26 West St. Clair St., Cincinnati, Ohio 45268 (telephone number 513-684-5362).

⁷Regulation of containers which formerly held § 261.33 chemicals is addressed elsewhere in this Part X of the Federal Register.

agrees that the amendment to § 261.33(c) should take effect six months after its promulgation. The amendment will subject some people to the hazardous waste management regulations whose activities were not subject to regulation under the May 19, 1980, regulations. Two classes of people may be brought under regulation for the first time by this amendment. The first class of people are those who for the first time will be considered generators. These are people whose only hazardous wastes are container residues of acutely hazardous materials (that are discarded) from containers that are re-used. Although it was not EPA's intent to allow these residues to go unregulated under the May 19 regulations, EPA agrees that a reasonable reading of § 261.33(c) would so allow. Thus, the change to that section will bring some people under the hazardous waste management regulatory system for the first time as generators and these persons need time to plan to meet the regulatory requirements of Part 262.

The other class of people affected by today's amendment are owners and operators of container cleaning facilities which receive containers which are not considered empty under new § 261.7, i.e., which hold residues of regulated acutely hazardous materials. They will, under the interpretation of § 261.33(c) discussed above, be considered treatment, storage or disposal facilities for the first time under today's amendment. The owners and operators of these facilities will have to prepare to meet the applicable Part 265 standards, if they are eligible for interim status.

The effective date for today's amendment to § 261.33(c) is May 25, 1981. Section II of this preamble, entitled "Compliance Dates" sets forth the dates by which persons who are subject to regulation for the first time by today's amendment to § 261.33(c) or who wish to handle wastes newly regulated by today's clarification must notify EPA and submit a new or revised Part A permit application.

Until the amendment to § 261.33(c) is effective, the provisions of § 261.33(c), as promulgated on May 19, 1980, will remain in effect. Until the amendment to § 261.33(c) is effective, persons handling residues of acutely hazardous materials in containers that are not discarded or intended to be discarded will not be considered subject to Part 262 through 265, 122 and 124 requirements.

VI. Special Small Quantity Provisions

If any container is not considered empty under § 261.7(b), then the hazardous waste remaining in the container is subject to full regulation

unless the generator of the waste qualifies for the special requirements for hazardous waste generated by small quantity generators established in § 261.5 or for one of the other special provisions in the regulations.

In response to numerous comments and questions on § 261.5, EPA has amended it in a separate rulemaking. Containers and inner liners are no longer specifically mentioned in the amended § 261.5 because of the change to § 261.33(c) discussed above. Because EPA considers the residue of the acutely hazardous material, rather than the container or inner liner, to be the hazardous waste, § 261.5 no longer specifies a number of containers or an amount of inner liners containing § 261.33(e) residues that a small quantity generator may generate and still come within the special requirements. See § 261.5(c)(3) and § 261.5(c)(4), May 19, 1980.

Under amended § 261.5, a generator with § 261.33(c) container residues is subject to full Subtitle C regulation if the amount of such hazardous waste residue he generates in a calendar month exceeds an exclusion level specified in § 261.5. If the sum of all of his acutely hazardous waste, including his § 261.33(c) residues, is less than 1 kilogram, that waste is excluded from regulation unless he generates more than 1000 kilograms of other hazardous waste in a calendar month, in which case all of his acutely hazardous waste is also subject to regulation that month. If he generates more than one kilogram of acutely hazardous waste in a calendar month, including § 261.33(c) residues, all of that hazardous waste is regulated. Container residues of other than § 261.33(e) materials that are subject to regulation because they measure more than one inch in an individual container (see § 261.7) must be counted toward the 1000 kilogram exclusion in § 261.5. The preamble to the amendments to § 261.5 discusses the application of that section in further detail.

VII. Use, Re-use, Recycling and Reclamation Provisions

There is an important distinction to be drawn between wastes listed in § 261.33 and other listed wastes, with respect to the re-use provisions of the regulations. The use, re-use, recycling, and reclamation provisions of § 261.6 do not apply to any materials listed in § 261.33, including container residues, because § 261.6 only applies to hazardous waste, and materials listed in § 261.33 become hazardous wastes only when they are discarded or are intended to be discarded. Thus, these materials are not

hazardous wastes if they are used, re-used, recycled or reclaimed.

On the other hand, hazardous waste container residues, other than those listed in § 261.33, which are regulated because they are in containers that are not empty, i.e., which don't meet the provisions of § 261.7(b) (1) or (2), can qualify for the special requirements in § 261.6 just as any other hazardous waste can.

VIII. Container Cleaning Operations

Some persons have read the definition of treatment in § 260.10 to encompass all container cleaning operations. Commenters were particularly concerned that the triple rinsing or other cleaning operations prescribed in § 261.33(c) (1) and (2) constituted treatment of the hazardous waste which adhered to the container.

A. Triple Rinsing

Triple rinsing, a procedure sanctioned in the regulations, is carried out with the express purpose of removing the waste from the container. The usual intent is simply to remove the waste and not to treat it, and the procedure is not usually "designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize . . ." it. Therefore, most triple rinsing does not meet the definition of treatment in Section 1004 of RCRA and § 260.10, and is, therefore, not subject to the requirements of Parts 264 and 265. The rinsate, however, hazardous waste if it meets one or more characteristics or if it contains a waste which remains subject to regulations via the mixing rule. See § 261.3(a)(2)(ii). Also, any treatment the rinsate would almost certainly meet the definition of treatment in RCF if such secondary treatment operation would be subject to the requirements of Parts 264 and 265.

B. Other Forms of Container Cleaning

Forms of container cleaning other than triple rinsing may constitute treatment because the intent and design of the operations involve not only removal of the waste from the container but also modification of the physical or chemical composition or character of the waste to render it less hazardous or non-hazardous. This is the case where drums are incinerated or "burned out." In this case, the burning operation is designed to remove and destroy the wastes. In other cases, chemicals are added to drums, again, not only to remove the waste, but to react with the wastes and destroy or detoxify them. These processes meet the RCRA definition of "treatment" and are thus

exclusion level of this section. The mixture is subject to full regulation.

Conditionally exempt small quantity generator's wastes are mixed with oil, the mixture is subject to this chapter if it is destined for energy recovery. Any material produced from such a mixture, blending, or other treatment, so regulated if it is destined for energy recovery.

Mar. 24, 1986, as amended at 51 FR 8, 1986; 51 FR 40637, Nov. 7, 1986; 52 FR 26424, July 19, 1987; 53 FR 25641, May 11, 1988; 61 FR 996]

NOTE: At 61 FR 34278, July 19, 1996, was amended by revising (f)(3) effective Jan. 1, 1997. For the convenience of the user, the superseded text is shown:

Requirements for hazardous waste generated by conditionally exempt small quantity generators.

Conditionally exempt small quantity generator's wastes are mixed with oil, the mixture is subject to this chapter if it is destined for energy recovery. Any material produced from such a mixture, blending, or other treatment, so regulated if it is destined for energy recovery.

Permitted under part 270 of this chapter:

(i) In interim status under parts 270 and 265 of this chapter;

(ii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under part 271 of this chapter;

(iii) Permitted, licensed, or registered by a State to manage municipal or industrial solid waste;

(iv) A facility which:

(A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

(v) For universal waste managed under part 273 of this chapter, a universal waste handler or destination facility subject to the requirements of part 273 of this chapter.

- (i) Permitted under part 270 of this chapter;
- (ii) In interim status under parts 270 and 265 of this chapter;
- (iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under part 271 of this chapter;
- (iv) Permitted, licensed, or registered by a State to manage municipal or industrial solid waste;
- (v) A facility which:
 - (A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or
 - (B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or
 - (v) For universal waste managed under part 273 of this chapter, a universal waste handler or destination facility subject to the requirements of part 273 of this chapter.

§ 261.6 Requirements for recyclable materials.

(a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as "recyclable materials."

(2) The following recyclable materials are not subject to the requirements of this section but are regulated under subparts C through H of part 266 of this chapter and all applicable provisions in parts 270 and 124 of this chapter:

(i) Recyclable materials used in a manner constituting disposal (subpart C);

(ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under subpart O of part 264 or 265 of this chapter (subpart H);

(iii) Recyclable materials from which precious metals are reclaimed (subpart F);

(iv) Spent lead-acid batteries that are being reclaimed (subpart G).

(3) The following recyclable materials are not subject to regulation under parts 262 through parts 266 or parts 268, 270 or 124 of this chapter, and are not subject to the notification requirements of section 3010 of RCRA:

(1) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in § 262.58:

(A) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in §§ 262.53, 262.56 (a)(1)-(4), (6), and (b), and 262.57, export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in subpart E of part 262, and provide a copy of the EPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

(B) Transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA Acknowledgment of Consent, must ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment and must ensure that it is delivered to the facility designated by the person initiating the shipment.

(i) Scrap metal;

(ii) Fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under § 261.4(a)(12);

(iv)(A) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under § 266.40(e) of this chapter and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such

for revealing proprietary data. In the face of these difficulties, some commenters went so far as to suggest that generators not be responsible for complying with the regulations unless they have actual knowledge of the product's chemical composition.

The Agency is taking a number of steps to deal with this problem. First, we are now preparing a directory of chemical products⁹ which are hazardous wastes when discarded. The Directory will include generic names, other names by which the chemicals are known (e.g., myrlane oil for nitrobenzene) and the names of trade products which are regulated under § 261.33 as well as the applicable hazardous waste number. The Directory will be advisory, not part of the regulation itself, so that a defendant in an enforcement proceeding will still be able to show that a waste listed in the Directory is not a waste listed in § 261.33. By the same token, absence of a product name from the Directory is not a defense. The Agency will expand the Directory over time to try and provide as complete a list as possible.

A second form of Agency guidance is the recently-implemented RCRA Industry Assistance Hotline. Persons unsure whether the trade name product they are discarding is a hazardous waste may call this toll-free number and provide the name of the product. The Agency will then provide advice as to whether the product is a hazardous waste and its basis for the determination. As with the Directory, the Agency's response will be advisory, not a formal regulatory action. The hotline telephone number is 800-424-9346 (in Washington, D.C., 564-1404).

We also expect that persons unsure of the hazardousness of a given product will call the manufacturer of the product. Although manufacturers may not want to give out the formula for their products, the Agency believes it is reasonable to expect suppliers to inform customers if disposal of the product is regulated under either § 261.33(e) or § 261.33(f). Customers of course have the option of refusing to deal further with a supplier who will not divulge this information.

We disagree strongly with the suggestion that generators lacking actual knowledge of a product's chemical composition remain unregulated. Such a standard provides a strong incentive for generators not to determine whether discarded products are hazardous

wastes. One purpose of RCRA is to require closer attention and inquiry into the potentially hazardous nature of discarded materials, and generators of discarded trade products are no exception. Suggestions for further means of dealing with the question of identity are, however, solicited.

IV. Interpretative Issues

As noted above, most interpretative questions involving § 261.33 will not be resolved until publication of a forthcoming RIM. Certain questions, however, can be dealt with in this preamble.

A. Are solid wastes that contain one or more of the chemicals listed in § 261.33 hazardous wastes by virtue of containing these materials?

Solid wastes which simply contain one of the chemicals listed in § 261.33 are not thereby hazardous. Where EPA intends to list such wastes, it will do so by listing them in §§ 261.31 and 261.32. This intention is in fact clearly expressed in the comment to § 261.33(d) which is part of the promulgated regulation. The purpose of § 261.33 is to regulate only the listed chemical products and intermediates and their trade name equivalents (and certain off-specification variants, emptied containers¹⁰ and spill residues and debris thereof) as hazardous wastes when they are discarded or intended to be discarded.

However, when a solid waste is mixed with one of these discarded materials, the resulting mixture is a hazardous waste until delisted (with certain exceptions set forth in § 261.5(h)). See § 261.3(a)(2)(ii). As set out in § 261.3(b)(2), the solid waste becomes a hazardous waste when the mixing of the § 261.33 chemical takes place either as an act of discarding that chemical or the time the chemical is intended for later discard (i.e., at the time the § 261.33 substance becomes a hazardous waste).

There are many situations where a solid waste becomes a hazardous waste by virtue of the actual or intended discarding of materials listed in § 261.33. Some of these situations are:

1. Where excess, expired or otherwise unwanted commercial chemical products or manufacturing chemical intermediates are discarded by discharging them into a wastewater stream or are discarded by being mixed into other solid wastes.

2. Where off-specification materials that, if they met specification, would be

commercial chemical products or manufacturing chemical intermediates, are discarded by being discharged into a wastewater stream or discarded by being mixed into other solid wastes.

Where contaminated residues or debris from the clean-up of spills of listed chemicals are discarded by being mixed into other solid wastes.

B. Are the commercial products and manufacturing chemical intermediates listed in § 261.33 subject to regulation if they are used, reused, recycled or reclaimed in lieu of being discarded?

No. A commercial chemical product or manufacturing chemical intermediate listed in § 261.33 is a hazardous waste only if discarded or intended to be discarded. If it continues to be used or sold, it is not being discarded and therefore is not a hazardous waste. If it is an off-specification material and is reprocessed, recycled or reclaimed it is not being discarded and therefore is not a hazardous waste. Thus the provisions of § 261.6(b) are not intended to apply to reuses of § 261.33 materials, since in such cases the materials are never discarded. The reference in § 261.6(b) to wastes "listed in subpart D" is confusing. Wastes listed in §§ 261.31 and 261.32 are the only wastes intended to be included.

There are numerous situations where the above interpretations apply. Some of these are:

1. Where a customer receives an off-specification product listed in § 261.33 and returns it to the manufacturer for reprocessing, the product is not being discarded and is not a hazardous waste.

2. Where a commercial product becomes excess inventory or outlives its expiration date in a wholesale or retail outlet or in the hands of a user and the supplier takes the product back for resale or reprocessing, the product is not being discarded by the wholesaler, retailer or user and is not a hazardous waste.

3. Where there is breakage of containers holding § 261.33 chemicals and the supplier takes back the affected chemicals, including recovered spilled chemicals, for repackaging or reprocessing, the chemicals are not being discarded and are not hazardous wastes. If, however, some of the spilled chemicals are discarded or intended to be discarded because they cannot be returned (e.g., they are mixed with dirt or other materials), these spilled chemicals (and associated spill cleanup residues and debris) are hazardous wastes.

These are examples of common practice which EPA believes should be encouraged because they avoid discarding valuable materials and

⁹SW-884, "Directory of Trade Name Products and Synonyms" will be available from Mr. Ed Cox, Solid Waste Information, U.S. Environmental Protection Agency, 26 West St. Clair St., Cincinnati, Ohio 45268 (telephone number 513-694-5362).

¹⁰Regulation of containers which formerly held § 261.33 chemicals is addressed elsewhere in this Part X of the Federal Register.

hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under § 266.40(e) of this chapter; and

(C) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under § 266.40(e) of this chapter; and

(v) Petroleum coke produced from petroleum refinery hazardous wastes containing oil by the same person who generated the waste, unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in part 261, subpart C.

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of parts 260 through 268 of this chapter, but is regulated under part 279 of this chapter. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) Hazardous waste that is exported to or imported from designated member countries of the Organization for Economic Cooperation and Development (OECD) (as defined in § 262.58(a)(1)) for purpose of recovery is subject to the requirements of 40 CFR part 262, subpart H, if it is subject to either the Federal manifesting requirements of 40 CFR Part 262, to the universal waste management standards of 40 CFR Part 273, or to State requirements analogous to 40 CFR Part 273.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of parts 262 and 263 of this chapter and the notification requirements under section 3010 of RCRA, except as provided in paragraph (a) of this section.

(c)(1) Owners or operators of facilities that store recyclable materials before they are recycled are regulated

under all applicable provisions of subparts A through L, AA, and BB of parts 264 and 265, and under parts 124, 266, 268, and 270 of this chapter and the notification requirements under section 3010 of RCRA, except as provided in paragraph (a) of this section. (The recycling process itself is exempt from regulation except as provided in § 261.6(d).)

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in paragraph (a) of this section:

(i) Notification requirements under section 3010 of RCRA;

(ii) Sections 265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies) of this chapter.

(iii) Section 261.6(d) of this chapter.

(d) Owners or operators of facilities subject to RCRA permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of subparts AA and BB of part 264 or 265 of this chapter.

[50 FR 49203, Nov. 29, 1985, as amended at 51 FR 28682, Aug. 8, 1986; 51 FR 40637, Nov. 7, 1986; 52 FR 11821, Apr. 13, 1987; 55 FR 25493, June 21, 1990; 56 FR 7207, Feb. 21, 1991; 56 FR 32692, July 17, 1991; 57 FR 41612, Sept. 10, 1992; 59 FR 38545, July 28, 1994; 60 FR 25541, May 11, 1995; 61 FR 16309, Apr. 12, 1996]

EFFECTIVE DATE NOTE: At 61 FR 16309, Apr. 12, 1996, § 261.6(a)(5) was added, effective July 11, 1996.

§ 261.7 Residues of hazardous waste in empty containers.

(a)(1) Any hazardous waste remaining in either (i) an empty container or (ii) an inner liner removed from an empty container, as defined in paragraph (b) of this section, is not subject to regulation under parts 261 through 265, or part 268, 270 or 124 of this chapter or to the notification requirements of section 3010 of RCRA.

(2) Any hazardous waste in either (i) a container that is not empty or (ii) an inner liner removed from a container that is not empty, as defined in paragraph (b) of this section, is subject to regulation under parts 261 through 265, and parts 268, 270 and 124 of this chapter and to the notification requirements of section 3010 of RCRA.

(b)(1) A container removed from a container any hazardous waste that is a component identified as an acute listed in §§ 261.31, this chapter is empty.

(i) All wastes that can be removed commonly employ materials from that type pouring, pumping,

(ii) No more than (one inch) of residue (one inch) of residue tom of the container

(iii)(A) No more weight of the total tainer remains in inner liner if the color equal to 110 gallons

(B) No more than weight of the total tainer remains in inner liner if the color than 110 gallons in s

(2) A container t arduous waste that is empty when the tainer approaches a

(3) A container o moved from a cont an acute hazardous §§ 261.31, 261.32, or §

(i) The container: been triple rinsed u ble of removing the cal product or man intermediate;

(ii) The containe been cleaned by a has been shown i erature, or by tes generator, to e moval; or

(iii) In the c inner liner tha the commercia manufacturing with the conta

[45 FR 78529, Nov. 1980; 50 FR 1999, Nov. 7, 1985]

§ 261.8 PCB was Toxic Substan

The disposal of electric fluid and containing such

MINIMUM CONCENTRATION OF CONSTITUENTS TO CHARACTERIZE THE TOXICITY CHARACTERISTICS

Constituent	CAS No. ²	Regulatory Level (mg/L)
.....	7440-39-3	100.0
.....	71-43-2	0.5
.....	7440-43-9	1.0
chloride	56-23-5	0.5
.....	57-74-9	0.03
.....	108-90-7	100.0
.....	87-86-3	6.0
.....	7440-47-3	5.0
.....	95-48-7	200.0
.....	108-39-4	200.0
.....	106-44-5	200.0
.....	200.0
.....	94-75-7	10.0
zene	106-46-7	7.5
ane	107-06-2	0.5
ylene	75-35-4	0.7
ne	121-14-2	0.13
.....	72-20-8	0.02
its ep-	76-44-8	0.008
ene	118-74-1	0.13
fiene	87-68-3	0.5
ie	87-72-1	3.0
.....	7439-92-1	5.0
.....	58-89-9	0.4
.....	7439-97-6	0.2
.....	72-43-5	10.0
ne	78-93-3	200.0
.....	98-95-3	2.0
col	87-86-5	100.0
.....	110-86-1	5.0
.....	7782-49-2	1.0
.....	7440-22-4	5.0
ie	127-18-4	0.7
.....	8001-35-2	0.5
.....	79-01-6	0.5
rol	95-95-4	400.0
tol	88-06-2	2.0
.....	93-72-1	1.0
.....	75-01-4	0.2

number, than the calculated regulatory value before becomes the regulatory concentration cannot be differentiated concentration is used. The regulatory level is mg/l.

1990, as amended at 55 FR 26987, June 29, 1993]

of Hazardous Wastes

a hazardous waste subpart, unless it is on this list under

the list will indicate the classes or types

Environmental Protection Agency

§ 261.31

of wastes listed in this subpart by employing one or more of the following Hazard Codes:

- Ignitable Waste (I)
- Corrosive Waste (C)
- Reactive Waste (R)
- Toxicity Characteristic Waste ... (E)
- Acute Hazardous Waste (H)
- Toxic Waste (T)

Appendix VII identifies the constituent which caused the Administrator to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

(c) Each hazardous waste listed in this subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under parts 262 through 265, 268, and part 270 of this chapter.

(d) The following hazardous wastes listed in § 261.31 or § 261.32 are subject to the exclusion limits for acutely hazardous wastes established in § 261.5: EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 50 FR 2000, Jan. 14, 1985; 51 FR 40636, Nov. 7, 1986; 55 FR 11863, Mar. 29, 1990]

§ 261.31 Hazardous wastes from non-specific sources.

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(H)*
F004	The following spent non-halogenated solvents: Cresols and creosylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I, T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R, T)

(B) floats are considered to be generated at the moment they are formed in the top of the unit.

[46 FR 4617, Jan. 16, 1981, as amended at 60 FR 33913, June 29, 1995]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.31, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 261.32 Hazardous wastes from specific sources.

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Wood preservation: K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of pheno/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K083	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K086	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K086	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines.	(C, T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I, T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C, T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)

Environmental Protection

Industry and EPA hazardous waste No.	
K113	Condensate of toluene
K114	Vicinal hydroxy toluene
K115	Heavy organic diisocyanate
K116	Wastewater dibromide
K117	Spent ethylene
K118	Still bottoms dibromide
K136	Distillation ring-chloride function benzyl
K149	Organic hydrocarbon methyl-compound
K150	Wastewater erated yl- chloride pounds
K151	Organic waste and derivatives
K156	Wastewater
K157	Wastewater
K158	Bag house carbon
K159	Organics
K160	Solids (in purification house their as
K161	Purification house their as
Inorganic chemicals:	
K071	Brine purification waste
K073	Chlorinated waste
K106	Wastewater
Pesticides:	
K031	By-product
K032	Wastewater
K033	Wastewater
K034	Filter acid chloride
K035	Wastewater
K036	Still bottoms
K037	Wastewater
K038	Wastewater
K039	Filter
K040	Wastewater
K041	Wastewater
K042	Heavy ends
K043	Wastewater
K087	Wastewater
K098	Wastewater
K099	Wastewater
K123	Wastewater
K124	Wastewater
K125	Wastewater

EPA had specifically designated in the rule, based on a series of criteria relating to how the device was an integral component of a manufacturing process.

We have adopted this same scheme in the final rule. Thus, only those devices specifically named in the regulation (*i.e.*, in the definition of industrial furnace contained in § 260.10) are considered to be industrial furnaces for purposes of the regulation. The criteria for adding new industrial furnaces are the same as at proposal. We have added certain new devices to the list of industrial furnaces. Our reasons are provided in the background document supporting this portion of the regulations.

II. Discussion of Specific Provisions of the Revised Definition of Solid Waste

A. Section 261.1(b): Purpose and Scope

1. *Use of The Regulatory Definition of Solid Waste Only For Purposes of The Subtitle C Regulations.* The applicability provision in the final rule is virtually identical to the one proposed. Section 261.1(b)(1) reiterates that the regulatory definition of solid waste applies only to materials that also are Subtitle C hazardous wastes. This point is implicit since the regulatory definition of solid waste appears in regulations implementing Subtitle C of RCRA, which subtitle only applies to hazardous wastes. In response to comment, we are adopting a clarifying provision in § 261.1(b) to ensure that the regulatory definition is not used in unintended contexts, for example to justify regulation of non-hazardous wastes. The language of the final rule is modelled on Section 8 of H.R. 2867 and is consistent with the Committee's intent. See H.R. Rep. 98-198 at 47.

This provision also makes clear that waste-derived products placed on the land for beneficial use or burned as fuels must themselves be hazardous (by exhibiting a characteristic or containing a listed hazardous waste) to be covered by the rule.

2. *Use of The Statutory Definition for Purposes of Sections 3007, 3013, and 7003.* EPA also is promulgating § 261.1(b)(2), which provision states that the regulatory definition does not limit the Agency's jurisdiction under Sections 3007, 3013, and 7003 of RCRA. Rather, the statutory definitions of solid and hazardous waste will apply when these provisions are involved. A substantially identical provision has been in the regulations since May of 1980. (Those provisions recopied from the May 19, 1980 rules are not being repromulgated and are not subject to judicial review.) Several commenters objected to its

continued inclusion, arguing that the statutory definitions of solid and hazardous waste do not provide adequate notice to the regulated community. These comments are unfounded. Congress clearly intended a broader definition of waste to apply when these three provisions are involved. See 48 FR at 14484 (April 4, 1983) and 45 FR 23090 (May 19, 1980); see also H.R. Rep. 98-198 at 47 (EPA's authority under Sections 3007 and 7003 includes all wastes that meet the statutory definition of hazardous waste). Courts also have repeatedly applied the statutory definition in Section 7003 actions. See 48 FR 4502 n.67 (Section 7003 actions against recycling facilities). Therefore, the statutory definitions of solid waste and hazardous waste will apply in all actions involving Sections 3007, 3013, and 7003 of RCRA. This means that the Agency's authority under these provisions extends to all materials that could be solid wastes under RCRA, not just to those defined as solid wastes in the regulations. Thus, EPA has authority to sample a potentially hazardous unlisted by-product being reclaimed even though this material would not be defined as a solid waste in § 261.2. It could be a solid waste, however; the regulatory definition states that this is a question requiring material-by-material consideration by EPA. EPA thus retains the statutory authority to obtain the information necessary to determine whether the materials are solid wastes (or, in the case of Sections 3013 and 7003, to take appropriate action under those provisions). The same reasoning applies to materials potentially designatable as solid wastes under § 261.2(d).

This portion of the rule is effective immediately. The HSWA amended Section 3010 of RCRA to allow rules to become effective in less than six months when the regulated community does not need the six-month period to come into compliance. That is the case here, since amended § 261.1(b) restates currently applicable law, as discussed above. See also H.R. Rep. 98-198 at 47, confirming this view. In addition, the government's interest in exercising its authorities under these provisions is high, and intrusion into business operations may be minimal, particularly in the case of exercise of Section 3007 authority. See, *e.g.*, *Mobil Oil v. EPA*, 716 F.2d 1187 (7th Cir. 1983). In these circumstances, the Agency believes there is "good cause" within the meaning of amended Section 3010 to make this portion of the rule effective immediately.

B. Section 261.2(b): Materials That Are Solid Wastes Because They Are Abandoned

This provision is identical to that proposed. It states that materials abandoned by being disposed of, burned, or incinerated are solid wastes. (By saying "abandoned," we do not intend any complicated concept, but simply mean thrown away.) Materials that are accumulated, stored or treated in lieu of or before such activities also are solid wastes. (We indicate in the final rule that materials that are recycled in lieu of disposal are not covered by this provision—even though recycling constitutes treatment. Rather, they are covered by the provisions in the definition saying when recycled materials are wastes.) We again emphasize, as we did in the proposal, that materials being burned in incinerators or other thermal treatment devices, other than boilers and industrial furnaces, are considered to be "abandoned by being burned or incinerated" for purposes of this provision, whether or not energy or material is also recovered. See 48 FR 14484/2. Materials burned for destruction in boilers and industrial furnaces are likewise considered to be "abandoned by being burned or incinerated." *Id.*, and n.15. We are making a conforming amendment to the Part 264 and 265 Subpart O applicability provision to express these thoughts. (We discuss in section D, below the concept of burning for destruction in boilers and industrial furnaces.)

C. Section 261.2(c)(1): Wastes and Waste-Derived Products That Are Used in a Manner Constituting Disposal

1. *The Proposed Provision.* EPA proposed that all secondary materials—*i.e.*, all spent materials, sludges, by-products and discarded § 261.33 commercial chemical products—that are recycled by being placed on the land, were solid wastes. In addition, all of these materials would be wastes if they were recycled to the land after simple mixing with other materials, when the mixing did not result in significant chemical or biological change to the original waste. See 48 FR at 14484-85.

2. *Extension of Jurisdiction To Hazardous Waste-Derived Products That Are Applied To The Land.* Virtually all commenters conceded that the Agency has authority to regulate secondary materials applied to the land in an as-is condition or after most simple mixing. Many comments, however, criticized the Agency for not also including within the scope of the rule waste-derived products that are

manner of recycling. We indicated that our preference was for the 75 percent recycling requirement to be applied to all materials of the same class which were to be recycled in the same way. Most commenters agreed, as this kind of accounting best assures that similarly situated materials will be grouped in the same way.

We are adopting this standard in the final rule. We wish to clarify precisely what this standard means, however. By "materials of the same class" we mean materials of the same type generated from the same process. Examples of materials that would be grouped are distillation bottoms from integrated production of chlorinated aliphatic hydrocarbons, slags from a smelting process, drosses from a smelting process, dry sludges from the same process, or wastewater treatment sludges from the same process.

The requirement that the materials be recycled in the same way means that materials are either to be used to make the same thing (for materials to be used as ingredients), used in the same way (for materials used as effective substitutes for commercial products), or, for unlisted by-products and sludges, that the same material be recovered from them. Thus, still bottoms used as intermediates to make the same products would be counted together—for example, all still bottoms from chlorinated aliphatic hydrocarbon production that are used to make carbon tetrachloride. On the other hand, still bottoms used as intermediates in the production of ethylene dichloride would be counted separately. All of a generator's spent pickle liquor used as a wastewater sludge conditioner would be aggregated; the same generator's pickle liquor used to produce iron oxide would be counted separately. Smelting drosses from which lead is recovered would be counted separately from smelting drosses from which zinc is recovered.

The Agency is adopting this approach to ensure that materials most alike in terms of physical characteristics and mode of recycling are counted together. EPA also believes this approach safeguards against situations where recyclable materials are counted along with unrecyclable ones, shielding the unrecyclable materials from being wastes. For instance, if a generator has 100 units of a secondary material all of which are recycled as ingredients in a process, and 20 units of the same material only one unit of which is recycled in a different process, the remaining 19 units should be classified as wastes because they aren't being recycled.

d. Means of Satisfying the Burden of Proof. As noted, persons accumulating secondary materials not otherwise defined as wastes have the burden of proving that they are recycling sufficient amounts of the secondary materials. At a minimum, we would expect that accumulators have on hand (1) the amount of secondary material of each class recycled in the same way on-hand at the beginning of the one-year period, (2) the amount of such material added during the one-year period, and (3) the amount remaining at the end of the one-year period. Records customarily maintained, such as records of throughput through an industrial process, should be satisfactory. For materials used as intermediates in closed-loop processes, records of consistent historical use should be sufficient. In addition, names and addresses of recyclers receiving the secondary materials should be maintained, as well as any other information that substantiates the minimum turnover rate (e.g. contracts or correspondence with a recycler).

e. Response to Comments. Although commenters expressed concern about the provision's complexity, most supported it in principle. One commenter, while supporting most of the overaccumulation provision, urged that it not apply to unlisted by-products accumulated in tanks and containers for a generator's own use or reuse. We have considered this comment but are rejecting it for the reasons given in the proposal (48 FR 14491/1). As a general matter, we believe the key measure of whether a material is overaccumulated is the length of time before use occurs, not how the material is stored or who will recycle it. In addition, the commenter was most concerned about accounting for unlisted by-products burned as fuels; since these materials are defined as wastes in the final rule (although they are not at this time subject to storage requirements), this question is of less importance.

There were a series of comments regarding the status of commercial chemical products that accumulate over time without being used. EPA indicated in the proposed rule that commercial chemical products that are hazardous wastes when discarded (i.e., those listed in § 261.33 of the regulations) were not subject to either the speculative accumulation or overaccumulation provisions of the proposed rule. 46 FR 14489. We also asked for comments as to whether some type of maximum accumulation period should be imposed by rule. Virtually all commenters opposed this idea, due to the large

recordkeeping requirements involved, and the difficult practical problems involved in observing and enforcing such a standard. The Agency shares these concerns. *Id.* at 14490. We therefore are not adopting any time limit on when a commercial chemical product held for recycling becomes a waste. The May 19, 1980 standard remains in place; these materials are wastes when discarded or intended for discard (by means of abandonment), and are not wastes when stored for recycling.

f. Variances for Secondary Materials Not Recycled in Sufficient Volumes. We also believe that there may be valid reasons that persons are unable to recycle sufficient amounts of non-waste secondary materials in one year (or the precious metal wastes that are conditionally exempt from regulation) and have retained the petition process to accommodate these situations. The petition is now termed a variance from being a solid waste, and is found in § 260.30 Substantive standards for the Regional Administrator's (or authorized state official's) decision are in § 260.31 (a) and procedures for applying for and processing variances are in § 260.33.

The standards for granting a variance are basically those we proposed. The Regional Administrator must decide if sufficient amounts of material are likely to be recycled or transferred for recycling in the following year. Factors to be considered are: (a) The kind of material being accumulated and its expected manner of recycling, (b) how much is being stored, (c) how it is being stored, (d) whether it is being stored in a way that minimizes loss, (e) how and when it is expected to be recycled, and (f) why this is a reasonable expectation. The Regional Administrator should consider the applicant's past history of recycling the material, whether there are contractual arrangements or market conditions bearing on the likelihood of future recycling, the reason that the material was accumulated without 75 percent being recycled in the past year, and other relevant factors. If, for example, a company has a multi-year history of selling a secondary material as a commercial product substitute, but was unable to sell 75 percent during a given year due to a temporary downturn in market conditions, and is handling the secondary material in a manner commensurate with its value as a substitute commercial product, the company may be eligible for a variance. On the other hand, a company that overaccumulates a secondary material not ordinarily reused, but that has been able to pay other companies to use the material in the past, and now has tons of

characteristic or listing. They simply provided that a petition to identify a characteristic or list a solid waste as a hazardous waste would be granted if EPA found that the proposed characteristic or waste met EPA's criteria for characteristics or listing (proposed § 250.12(c)).

EPA received a number of comments urging it to establish standardized procedures for the submission and processing of petitions to modify its characteristics or list of wastes. Some of these commenters simply wanted to know how to file a petition and how EPA would act on it. Others insisted that EPA establish rulemaking procedures which complied with the Administrative Procedures Act, mistakenly thinking that because proposed § 250.12(c) did not articulate the procedures EPA would follow in acting on petitions, the Agency would grant petitions, thereby modifying its regulations, without going through normal rulemaking procedures.

To provide the guidance desired by the first set of commenters and to assuage the concerns of the second, we have included in Subpart C of Part 260 procedures for the submission and processing of petitions to add to, revoke or otherwise modify any of the Subtitle C hazardous waste regulations, including the hazardous waste characteristics and lists. This provision expressly requires that a tentative decision to grant a petition be made in the form of an advance notice of proposed rulemaking or a proposed regulation, thus starting the rulemaking process.

EPA received a number of comments suggesting that unless EPA specified the information to be contained in petitions to amend its characteristics or lists of hazardous wastes, petitioners would not know what type of data to submit to the Agency and that the Agency would have to expend a substantial amount of time reviewing incomplete petitions.

EPA agrees that this may have been a problem with its proposed regulation. The Agency's proposed criteria for listing were not particularly well-articulated. In addition, the background documents for characteristics and for individual wastes also failed, in some cases, to provide meaningful guidance as to the kinds of information which should be submitted in a rulemaking petition.

We think we have remedied most of these deficiencies in this regulation. In response to comment, we have substantially expanded the criteria for listing, so that the factors which EPA will be using in making a listing decision are much better stated. The background

documents for both the characteristics and lists have been materially upgraded, so that they now provide a good model for rulemaking petitions. In short, we think the regulations published today, with their supporting materials, will enable petitioners to intelligently frame rulemaking petitions.

For this reason, EPA thinks it is probably unnecessary to establish detailed informational requirements for petitions. Moreover, developing a list of such requirements would be very difficult, because the types of data and degree of detail required will vary substantially from waste to waste and from characteristic to characteristic. If, in the future, EPA finds that most petitioners are submitting insufficient information, we will reconsider establishing more specific data requirements for these petitions.

EPA recognizes that some organizations—primarily environmental groups—may not have the skills, resources, or data collection authority to fashion rulemaking petitions which contain all of the information which EPA will need to make a decision to establish a new characteristic or list a new waste. If such petitions, although incomplete, appear to have merit, EPA will attempt to obtain the supplemental data necessary to make a tentative rulemaking determination. These organizations should recognize, however, that this will necessarily delay any final action on their petitions.

IV. Subpart A.

A. Section 261.1 (Purpose, Scope and Applicability)

Although this section is largely self-explanatory, two points regarding the function of EPA's Section 3001 regulation, which were apparently a source of misunderstanding during the comment period, are deserving of special attention.

First, the purpose of this regulation is to identify those wastes which, because of the hazards they may pose in transportation, treatment, storage or disposal, should be subject to appropriate management requirements under Subtitle C. It does not dictate how wastes should be managed (although it may identify properties of the waste which will affect management practices). Management standards and permitting requirements are imposed under Sections 3002 through 3005 and Section 3010.

Second, although this regulation limits what may be regulated as a "hazardous waste" under Sections 3002 through 3005 and 3010 of RCRA, it does not limit those materials which may be

considered "hazardous wastes" under other sections of the statute, particularly Section 3007 (which authorizes EPA to obtain information on "hazardous waste" in order to develop regulations or enforce RCRA) and Section 7003 (which authorizes the Agency to institute civil actions to abate imminent and substantial hazards caused by "hazardous wastes"). Unlike Sections 3002 through 3004 and Section 3010, Congress did not confine the operations of Sections 3007 and 7003 to "hazardous wastes identified or listed under this subtitle" (emphasis added). To avoid future confusion on this point, EPA has stated it explicitly in § 261.1(b).

B. Section 261.2 (Definition of Solid Waste)

Because no material can be a "hazardous waste" without first being a "solid waste" (Section 1004(5)), what constitutes a "solid waste" is really the definitional starting point for the hazardous waste management system. Section 1004(27) of RCRA defines a solid waste as:

any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial or mining and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows, or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act . . . or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 . . . (Section 1004(27)).

In its proposed regulations, EPA adopted this definition, with its exclusions, in its entirety (§ 250.11(a)(7)). In addition, it proposed to construe the term "other discarded material" in Section 1004(27) to include:

- (1) Any material which is not re-used—i.e., is abandoned or committed to final disposal;
- (2) Any material which is re-used by being placed in or on the land or water so that the material or any constituent thereof is released into the environment; and
- (3) Waste oil burned as fuel.

EPA noted that it would add other uses to the third category of discarded materials if it found that it was necessary to control such uses (43 FR 58954).

This definition of "other discarded material" was based on four major considerations. First, after reviewing both the language and framework of

waste munitions, and therefore proposes no change to 40 CFR 261.3.

Under 40 CFR 261.2 of the RCRA regulations, "solid waste" is defined as "discarded material." Section 261.2 (a) through (f) provides a detailed regulatory definition of this term. In particular, § 261.2(b) defines "discarded material" as materials that are abandoned by being disposed of; burned or incinerated; or accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned. In today's notice, EPA proposes to add a new § 261.2(g) specifying how the regulatory term "discarded material" applies to unused military munitions. This proposed provision would address the regulatory definition of solid waste in the context of three specific categories of munitions: (1) unused munitions in the military stockpile, (2) used or fired munitions, and (3) munitions being used for their intended purpose.

Additionally, EPA proposes in new § 261.2(g)(4) to characterize munitions at closed or transferred ranges as statutory solid waste under RCRA section 1004(27). However, once DOD promulgated range cleanup regulations under its own standards, this section would be superseded.

1. Unused or Stockpiled Munitions

a. Status of Military Stockpile.

According to DOD, the military services currently have 5.6 million tons of conventional munitions stored in magazines at installations within the United States. Of these munitions, more than 5.1 million tons (or more than 90%) are in an "active use" inventory, and therefore are available for use in training or war. At the same time, however, the Services have a significant volume of munitions in "demilitarization" accounts (for example, the Army's Resource Recovery and Disposition Account); munitions in these accounts are generally considered to be excess and unneeded.

"unserviceable" (and needing further assessment or repair), or obsolete.⁴

According to DOD, approximately 440,000 tons of munitions are stored in demilitarization accounts; under DOD procedures, these materials first undergo evaluation to determine whether they can be returned to service, repaired, sold, or recycled. If these options are unavailable, the munition is then scheduled for destruction. DOD currently considers that its stockpile

⁴The Services also assign "condition codes" to ammunition. For example, the Army's *Ammunition Surveillance Procedures* (November 1990) provides designations for ammunition such as Condition Code H ("Material that has been determined to be unserviceable and does not meet repair criteria").

includes 48,000 tons of munitions scheduled for destruction.

EPA and DOD generally agree that munitions stored in the active use military stockpile do not meet the definition of "discarded material" or "solid waste" in 40 CFR 261.2, and therefore are not regulated under RCRA subtitle C. There is also general agreement that obsolete or excess munitions meet the regulatory definition of solid waste at the point when they are received for destruction or disposal—for example, at open burning/open detonation units or incinerators. Despite agreement on these points, however, there has been considerable discussion over whether and how RCRA standards apply to munitions slated for destruction before they are received at a treatment or disposal site.

This discussion has centered primarily on defining what event or munition status indicates a DOD "intent to destroy." EPA has had comparable discussions with industry over when commercial products become a solid waste. The Part 261 regulations regarding commercial products in storage rely largely on the "intent" of the owner to discard; over the years, EPA has sought to establish simple, consistent, and enforceable principles regarding the point at which commercial products are intended to be "discarded"—notably these are (1) when the products are removed from storage for disposal, or treatment prior to disposal, (2) when the owner declares them to be hazardous waste, and (3) when they are deteriorated or damaged (e.g., leaking) to the point they cannot be used, or reprocessed for beneficial use. In today's proposal EPA has sought to apply these general principles to military munitions.

In proposed § 261.2(g)(1)(i) through (iv), EPA clarifies this issue by identifying the specific circumstances under which an unused or stockpiled munition would be considered to be solid waste for regulatory purposes.

b. Proposed § 261.2(g)(1)(i)—Munitions that have previously been disposed of. Under proposed § 261.2(g)(1)(i), a munition becomes discarded, and therefore a solid waste when it is "abandoned by being disposed of, burned, or incinerated, or treated prior to disposal." Thus, open burning/ open detonation or incineration of unused munitions (except when done during an emergency response or during training in use of a product) is regulated under the RCRA subtitle C standards for hazardous waste, including the 40 CFR Part 270 permit requirements (assuming the

waste munitions meet the § 261.3 definition of "hazardous waste"). Similarly, unused munitions that were buried or landfilled in the past are solid waste, and, if hazardous, they would become subject to applicable subtitle C regulation when unearthed and further managed. EPA emphasizes that this proposed section would not bring use of military munitions for their intended purposes—e.g., the firing of military rounds—within the scope of subtitle C. The use of a product (in this case a military munition), in EPA's view, is not a waste management activity and does not constitute abandonment for the purposes of proposed § 261.2(g)(1). ("Discarded material" in the context of munitions used at military firing ranges is addressed in proposed § 261.2(g)(4), which is discussed below.)

c. Proposed § 261.2(g)(1)(ii)—Munitions removed from the stockpile for the purposes of disposal/destruction. Proposed § 261.2(g)(1)(ii) would specify that a military munition becomes a solid waste for regulatory purposes when it is removed from storage in a military magazine or other storage area⁵ for the purposes of destruction, disposal, or treatment prior to disposal.

Stockpiled munitions, in EPA's view, are unused "products" comparable to unused commercial products stored by manufacturers or their customers. Under RCRA, unused products do not become "waste" until they become "discarded material," that is, until an intent to discard the material can be demonstrated. Even if a commercial product's shelf life has expired, or it can no longer be used for its intended purpose (for example, because of physical deterioration), it may be reprocessed or used for other purposes. Thus, it would not necessarily be considered "discarded material" or solid waste.

Stockpiled military munitions are in a comparable situation, and the classification of a munition in one of the various DOD "demilitarization" accounts does not, in EPA's view, constitute a decision to discard the material because, pursuant to DOD's practices, such a classification does not necessarily evidence an intent to discard. Ammunition classified as "unserviceable," for example, may be returned to service, after further review, or in some cases after reprocessing.

⁵The term "military magazine or other storage area" refers to all types of military munitions storage units, including outdoor or open storage areas, sheds, bunkers, and earth-covered and above-ground magazines allowed under the DOD Explosives Safety Board (DDESB) standards (DOD 6055.9-STD), which are mandatory for use by all DOD components.

→ Similar to EOL in principal

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Date: October 4, 2000
Refer to: 10520.9920-01

Susan McMichael, Esq.
New Mexico Environment Department
Assistant General Counsel
Post Office Box 26110
Santa Fe, New Mexico 87502



Dear Ms. McMichael:

Subject: Compliance Order 99-03 (1997 Inspection)

The following information is provided in response to your letter of September 26, 2000. For reference, I have included your numbered request with each response.

1. Findings in ¶ 21 to support conclusion that the "solid waste" had been characterized as "non-hazardous" through process knowledge and further, that subsequent analysis confirmed this analysis. Answer, ¶ 16.

In accordance with 20.4.1.3 NMAC, § 262.11(c)(2), LANL personnel relied on knowledge of the hazard characteristic of the waste in light of the materials used in the process which produced the waste, to characterize the waste as nonhazardous. In this case, the waste was debris from the clean-up of Texaco Long Life Coolant/Anti-freeze Premix 50/50. The coolant was absorbed on Toxi-dry Absorbent and vermiculite. Personnel characterized the waste as non-hazardous based on information provided in the product MSDS. I enclose copies of the Waste Profile Form # 26775, the Chemical Waste Disposal Request Form, and the MSDS. In addition I must apologize for a misstatement in our Answer as I now find that the waste was not sampled after the inspection. However, waste characterization is not at issue here. The narrative attached to the penalty matrix calculation for this apparent finding states that there was no hazardous waste present in the > 90-day unit at the time of the inspection.

2. Findings in ¶ 24 to support conclusion in question held product previously determined by knowledge of process to be solid and not hazardous waste. Answer ¶ 19.

In accordance with 20.4.1.3 NMAC, § 262.11(c)(2), personnel relied on knowledge of the hazard characteristic of the waste in light of the materials used in the process that

Susan McMichael

October 4, 2000

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generated the waste to characterize it as nonhazardous. In this case, the waste was petroleum product mixed with soil. I enclose copies of the Chemical Disposal Request Form, the analytical results, and the chain-of-custody record.

3. Findings in ¶ 34 to support the conclusion that UC made a determination that the material is nonhazardous. Answer ¶ 29.

In accordance with 20.4.1.3 NMAC, § 262.11(c)(2), Johnson Controls Northern New Mexico (JCNNM) personnel relied on specific knowledge of the how the waste was generated to characterize the waste as nonhazardous. JCNNM removed the motor oil from a backhoe being used by the Environmental Restoration Program. Used motor oil is either recycled or managed as solid waste at the Laboratory. There is no documentation of the characterization of this solid waste.

4. Findings ¶¶ 47 and 48 to support the conclusion that UC determined, based on knowledge of process, that the waste was non-hazardous. Answer ¶ 43.

In accordance with 20.4.1.3 NMAC, § 262.11(c)(2), personnel relied on knowledge of the hazard characteristic of the waste in light of the materials used in the process that generated the waste to characterize the waste as nonhazardous. I enclose a copy of a memo from Barbara Smith to Tony Grieggs, dated December 18, 1997, which documents the generator's knowledge of the waste.

5. Findings in ¶ 57 to support the conclusion that the container in question contained a solid waste. Answer, ¶ 52. .

In accordance with 20.4.1.3 NMAC, § 262.11(c)(2), personnel relied on knowledge of the hazard characteristic of the waste in light of the materials used in the process that generated the waste to characterize the waste as nonhazardous. LANL personnel examined the contents of the drum and determined that the contents had been generated by JCNNM in conducting maintenance work at the facility, and were solid waste. I enclose a copy of a memo from Jiri Kubicek to Tony Grieggs, dated December 19, 1997.

6. Findings in ¶¶ 65 and 79, to support conclusion that the individuals identified received "RCRA refresher or equivalent training" prior to inspection Answer ¶ 60 and 79.

With respect to NMED's ¶ 65, both Rick Alexander and Julie Meadows had completed their RCRA refresher course prior to the inspection. According to my records, the apparent finding was made on July 25, 1997. Mr. Alexander completed his RCRA refresher training on January 23, 1997, and Ms. Meadows completed hers on July 16, 1997. I enclose copies of the training records. Complete training records for the four individuals identified in the paragraph were provided to NMED in the

Susan McMichael
October 4, 2000
Page - 3

Ordered Action Documents.

With respect to NMED's ¶ 84, addressed in the Answer at ¶ 79, Mr. Lewis completed his RCRA refresher prior to the inspection. According to my records, this apparent finding was made on July 17, 1997. Mr. Lewis completed his training on July 12, 1997. Ms. Ramsey completed RCRA refresher training on October 19, 1995, and November 15, 1996. Between those dates, she completed 16 hours of RCRA compliance training on March 15, 1996, and 40 hours of training in hazardous and toxic waste management on July 22, 1996. I enclose copies of training records. Complete training records for the four individuals identified in the paragraph were provided to NMED in the Ordered Action Documents.

7. Findings in ¶ 90, to support conclusion that the container was not hazardous based on knowledge of process. Answer, ¶ 85.

In accordance with 20.4.1.3 NMAC, § 262.11(c)(2), JCNNM personnel relied on specific knowledge of the how the waste was generated to characterize the waste as nonhazardous. The waste was paint remaining in drums after most of the product was used painting stripes on roads at the Laboratory. JCNNM relied on the MSDS, a copy of which is enclosed, to characterized the unused paint as nonhazardous. I also enclose a copy of the analytical results obtained after the inspection, and a copy of the Waste Profile Form.

I look forward to meeting with you on November 1, 2000, to discuss potential settlement of this compliance order. If I can provide any further information, please let me know.

Sincerely yours,



Ellen T. Louderbough
Staff Attorney

Cy:

S. Moreno, LC-1, MS A187 (w/o attachments)
B. Osheim, DOE/LAAO, MS A316 (w/ attachments)
T. Fox, NMED, (w/ attachments)
D. Brinkerhoff, NMED (w/ attachments)
LC Records, MS A187
LC File



GARY E. JOHNSON
Governor

State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
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Santa Fe, New Mexico 87502-6110



PETER MAGGIORE
Secretary
PAUL R. RITZMA
Deputy Secretary

OFFICE OF GENERAL COUNSEL
PHONE: 505-827-2990
FAX: 505-827-1628

September 26, 2000

Ms. Ellen T. Louderbough
P.O. Box 1663
Mail Stop A-187
Los Alamos, N.M. 87545-1663

Re: 99-03 [1997 Inspection].

Dear Ms. Louderbough:

This letter confirms our telephone conversation of today. We look forward to meeting with you in early November to discuss potential settlement of the issues contained in HRM 99-03 [the 1997 Inspection]. As we discussed, to facilitate and expedite settlement we are requesting that DOE/UC provide us copies of the documentation identified below. This documentation was referred to in the answer provided to us by the DOE. We would appreciate receiving this documentation as soon as possible and several weeks prior to our settlement meeting to enable us ample opportunity to carefully review the material. Additionally, please feel free to include any other documentation relied upon in your answer that may be relevant.

1. Findings in ¶ 21 to support conclusion that the "solid waste" had been characterized as "non-hazardous" through process knowledge and further, that subsequent analysis confirmed this analysis. Answer, ¶16.
2. Findings in ¶ 24 to support conclusion that the containers in question held product previously determined by knowledge of process to be solid and not hazardous waste. Answer, ¶19.
3. Findings in ¶ 34 to support the conclusion that UC made a determination that the material is nonhazardous. Answer, ¶29.
4. Findings ¶¶ 47 and 48 to support the conclusion that UC determined, based on knowledge of process, that the waste was non-hazardous. Answer, ¶43
5. Findings in ¶ 57 to support conclusion that the container in question contained a solid waste. Answer, ¶52.

6. Findings in ¶¶65 and 79, to support conclusion that the individuals identified received "RCRA refresher or equivalent training" prior to inspection. Answer ¶¶60 and 79

7. Findings in ¶90, to support conclusion that the container was not hazardous based upon knowledge of process. Answer, ¶85.

We look forward to meeting with you to discuss potential settlement. Please let me know whether you can meet Wednesday, November 1, 2000.

Sincerely,



Susan M. McMichael
Assistant General Counsel

cc: Tannis Fox
Debbie Brinkerhoff

UNCLASSIFIED**LABORATORY COUNSEL****GENERAL LAW OFFICES**

**P.O. Box 1663, MS A187
Los Alamos, NM 87545
(505) 667-3766
Fax: (505) 665-4424**

FAX TRANSMISSION COVER SHEET

Date: January 7, 2000
To: Susan McMichael
Fax: 827-2836
Re: CO 99-03 Extension of time documents
Sender: Ellen Louderbough

**YOU SHOULD RECEIVE (5) PAGE(S), INCLUDING THIS COVER SHEET.
IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL (505) 667-3766.**

Comments:

Susan:

Attached please find the University of California's proposed stipulated motion and order for an extension of time in which to answer the alleged violations in the New Mexico Environment's Compliance Order 99-03 relating to the 1997 RCRA Inspection of the Laboratory. It is unclear, at the moment, if DOE will be joining in the stipulated motion. Please give me a call after you have had a chance to review the proposed motion and order. I can be reached at 665-2286.

Ellen

**cy: M. Edgett, CRM-4, MS A150
File**

IF YOU HAVE RECEIVED THIS TELECOPY IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US AT THE ADDRESS ABOVE VIA THE UNITED STATES POSTAL SERVICES. THANK YOU.

UNCLASSIFIED

**STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT**

IN THE MATTER OF
THE UNITED STATES DEPARTMENT OF ENERGY
AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515

COMPLIANCE ORDER
HRM - 99-03 (CO)
(1997 Inspection)

MOTION FOR STIPULATED ORDER ALLOWING EXTENSION OF
TIMEFRAME UNTIL MARCH 15, 2000 WITHIN RESPONDENTS
MAY FILE ANSWER

COME NOW Respondent, the Board of Regents of the University of California (UC), with the concurrence of Complainant, and move the Hearing Officer to approve an extension of time until March 15, 2000, within which Respondent may file its answer to the above captioned Compliance Order (CO), and provide documentation of ordered compliance actions.

As grounds for this extension until March 15, 2000, Respondent states that Respondent received CO 99-03 a week prior to the annual UC holiday closing of Los Alamos National Laboratory. And because of the annual end of the year closure a number of staff members necessary to respond to the alleged findings in the CO were on scheduled leave and therefore unavailable to begin gathering information and documentation necessary to prepare an answer. The extension will allow Respondent to collect documentation to build a complete administrative record. The interests of justice will be served if Respondent are granted an extension of time until March 15, 2000 within which to file an answer to the allegations in CO 99-03, and to document ordered compliance actions.

Complainant concurs in this Motion and in the attached Order.

WHEREFORE, Respondents request approval of the attached Stipulated Order by the Hearing Officer.

Submitted and Approved:

REGENTS OF THE UNIVERSITY OF CALIFORNIA

DATE: _____

BY: _____
Ellen T. Louderbough

APPROVED:

**NEW MEXICO ENVIRONMENT DEPARTMENT
OFFICE OF GENERAL COUNSEL**

DATE: _____

BY: _____
Susan M. McMichael

**STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT**

IN THE MATTER OF **COMPLIANCE ORDER**
THE UNITED STATES DEPARTMENT OF ENERGY **HRM - 99-03 (C0)**
AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA **(1997 Inspection)**
LOS ALAMOS, NEW MEXICO
NM0890010515

**STIPULATED ORDER ALLOWING EXTENSION UNTIL
MARCH 15, 2000, WITHIN WHICH RESPONDENTS MAY
FILE ANSWER TO COMPLIANCE ORDER**

Upon the Motion of Respondent, the Regents of the University of California, and with the concurrence of Complainant the New Mexico Environment Department, it is hereby stipulated by the parties that the timeframe within which Respondent may file its Answer to Compliance Order HRM-99-03, and provide documentation of compliance activities is extended until March 15, 2000

The Hearing Officer having determined that good grounds exist for the Motion of Respondents, hereby orders that the 30 day timeframe provided for in the Compliance Order within which Respondents must file their answer and document compliance activities be extended until March 15, 2000.

Hearing Officer

Submitted and Approved:

REGENTS OF THE UNIVERSITY OF CALIFORNIA

DATE: _____

BY: _____
Ellen T. Louderbough

APPROVED:

**NEW MEXICO ENVIRONMENT DEPARTMENT
OFFICE OF GENERAL COUNSEL**

DATE: _____

BY: _____
Susan M. McMichael



GARY E. JOHNSON
Governor

State of New Mexico
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1190 St. Francis Drive, P.O. Box 26110
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PETER MAGGIORE
Secretary
PAUL R. RITZMA
Deputy Secretary

OFFICE OF GENERAL COUNSEL
PHONE: 505-827-2990
FAX: 505-827-1628

Date: 1-10-00
To: Debbie Brinkerhoff
FAX: 7-1833
Pages: 6 (including cover sheet)
From: Susan McMichael

NMED, Office of General Counsel
Fax: (505) 827-1628 Phone: 7-0127

Comments:

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM PUBLIC DISCLOSURE UNDER APPLICABLE LAW.

If the recipient of this message is not the intended recipient, or an employee or agent of the intended recipient, you are hereby notified that any dissemination, distribution or copying of this message is strictly prohibited. If this message has been received in error, please notify us immediately by telephone and destroy the message you received.

FAX TRANSMISSION

99.719

STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT

IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515

SEP 21 1999

COMPLIANCE ORDER
HRM -99-03(CO)
(1997 Inspection)

U99 10107

ORIGINAL COPY

RESPONDENTS.

ADMINISTRATIVE COMPLIANCE ORDER

The Secretary of Environment, acting through the Director of the Water and Waste Management Division of the New Mexico Environment Department (NMED), issues this Administrative Compliance Order (Order) to the United States Department of Energy (DOE) and the Regents of the University of California (UC)(collectively referred to as Respondents), pursuant to the New Mexico Hazardous Waste Act (HWA), NMSA 1978 § 74-4-10 (Repl.Pamp. 1993).

FINDINGS OF FACT

1. NMED is the agency within the executive branch of the government of the State of New Mexico charged with the administration and enforcement of the HWA and New Mexico Hazardous Waste Management Regulations (HWMR), 20 NMAC 4.1.101 through .1109.
2. Respondents are DOE and UC, who notified the Environmental Protection Agency (EPA), of their hazardous waste generation activities on ^{August 13} ~~November 19~~, 1980.
3. DOE is an agency of the federal government and the owner and co-operator of Los Alamos National Laboratory (LANL).

4. UC is a public educational institution of the State of California and the management and operating contractor for LANL pursuant to a contract with DOE, and is a co-operator of LANL.

5. LANL is principally located in Los Alamos County, New Mexico, approximately sixty miles northeast of Albuquerque and twenty-five miles northwest of Santa Fe. The LANL site encompasses approximately forty-three square miles.

6. LANL was chosen as the site for the wartime development of the atomic bomb. The facility was established as a military reservation, and operations began in 1943. Since 1943, the primary mission of LANL has been nuclear weapons research and development. In addition, the facility does work in magnetic and internal fusion, nuclear fission, nuclear safeguards and security, laser isotope separation, and medical isotope development.

7. In association with the activities identified above, LANL generates, treats and stores hazardous wastes and mixed hazardous and radioactive wastes. LANL has also applied for and received a HWA permit from NMED for the storage and management of hazardous wastes and mixed hazardous and radioactive wastes.

8. Over the past seven years, NMED has issued numerous compliance orders seeking compliance and civil penalties. In 1992 through 1994, NMED inspected LANL, discovered violations of HWMR-7, and issued Respondents compliance orders (93-01, 93-02, 93-03, 93-04, 94-09, 94-12), which sought compliance and assessed civil penalties. In 1995, NMED inspected LANL, discovered violations of HRMW, 20 NMAC 4.1, and issued LANL and DOE compliance orders (95-03, 95-08), which sought compliance and assessed civil penalties. In 1996, NMED inspected LANL, discovered violations of the HRMW, 20 NMAC 4.1, and issued a letter of violation.

9. The violations cited in the enforcement actions described above in paragraph 8, included, but were not limited to the following: failure to perform hazardous waste determinations (94-09), failure to keep a hazardous waste container closed (93-04, 94-09), failure to label hazardous waste containers (93-04, 94-09), failure to provide decontamination equipment at a less than ninety day storage area (93-04, 94-09), exceeding storage time limits for hazardous waste (93-04, 94-09), manifesting violations (93-04, 94-09), LDR violations (1993 EPA multi-media), training violations (93-04, 94-09) and accumulation of waste not under control of the generator (94-09).

10. As a result of the compliance orders described above in paragraph 9, Respondents entered into an administrative order on consent (1992 - 1994) and stipulated final order (SFO) (1995) and agreed to a schedule of compliance and the payment of civil penalties.

11. Between July 8, 1997 and December 8, 1997, NMED performed a compliance evaluation inspection (FY 97 Inspection) of LANL to determine Respondents' compliance status with the HWA and HWMR, 20 NMAC 4.1. The FY 97 inspection involved all technical areas (TA) at LANL. The following violations were discovered at TA-3, TA-18, TA-21, TA-33, TA-46, TA-54, TA-55 and TA-60.

TA-3, Ion Beam Facility

12. TA-3 generates hazardous waste.

13. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status.

14. At the time of the FY97 inspection, a 2 liter container of hydrochloric acid was found discarded and not under the control of the generator at TA-3, Ion Beam Facility, Basement Laboratory.

admits denies denies
- waste *- not a soap*
- no operator
IBF not in operation being cleaned out *- may be locked but not under control*

15. In a written memorandum dated December 18, 1997, LANL stated that the 2 liter container contained hydrochloric acid, a corrosive characteristic waste (D-002).

16. Upon information and belief, the two liter container had not been under Respondents' control for at least thirty-two days.

17. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(a)(2)) requires a generator to mark the date upon which each period of accumulation begins, clearly and visibly, for inspection on each container.

18. At the time of the FY97 inspection, NMED discovered that 4 containers of hazardous waste were not marked with the date upon which each accumulation period started. The containers that were not labeled correctly were: 2 bottles of Red X TV Corona Dope, 1 container of Handy Flux and one 2 liter gas cylinder.

TA-18

19. TA-18 generates hazardous waste.

20. 20 NMAC 4.1.300 (incorporating 40 CFR §§ 264.34(a)(4)) requires Respondents to have operable decontamination equipment and water at adequate volume and pressure, unless a demonstration to the Secretary is made that no hazard is posed.

21. At the time of the FY97 inspection, there was no operable eyewash or water of adequate volume available at the less than ninety day storage area in TA-18. LANL personnel admitted to these facts in writing. Further, LANL personnel stated that there is no policy on the operation of the eyewash for the less than ninety day storage area.

TA-21

22. TA-21 generates hazardous waste.

23. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

24. At the time of the FY97 inspection, NMED found a 2 gallon container with unknown contents discarded at TA-21, Bldg. 1, east side dock.

25. LANL personnel stated that the container was filled with oily dirt and sludge and contained no hazardous waste.

26. Upon request by NMED, LANL provided documentation to support its hazardous waste determination. Upon review, the documentation inadequately demonstrated that the container contains no hazardous waste.

27. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste without a permit or interim status.

28. At the time of the FY97 inspection, NMED found two 1 gallon containers discarded and not under the control of the generator for an unknown period of time at TA-21, Bldg. 59.

29. The two 1 gallon containers contained a listed hazardous waste, 111

Trichloroethylene
one ~~is~~ TCA

30. At the time of the FY97 inspection, a 55 gallon container, half full of Titanium crystals was found discarded and not under the control of the generator at TA-21, JCI-ESA/TSC, basement.

31. Titanium crystals are reactive and characteristic hazardous waste (D003).

32. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

33. At the time of the FY97 inspection, NMED found a 5 gallon container, 2/3 full of unknown contents, discarded at TA-21, Shed 402. *conc. 20*

34. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the 5 gallon container contained no hazardous waste.

TA-33 - Mobile Laser Staging Area

35. TA-33 generates hazardous waste.

36. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

37. At the time of the FY97 inspection, NMED found "waste lead solder" discarded for an unknown period of time at TA-33, Bldg. 39. *conc 21*

38. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the "waste lead solder" contains no hazardous waste.

39. Upon information and belief, the "waste lead solder" contained lead and is a characteristic hazardous waste. Further, LANL stated in a written memorandum, that after the NMED inspector noted the violation, it corrected the violation.

40. At the time of the FY97 inspection, at least 16 containers of photo processing chemicals were discarded for at least ten months at TA-33, Bldg. 114, Room 125. *conc. 22*

41. Respondents' hazardous waste determination regarding these containers was inadequate and did not demonstrate to NMED that the photo processing chemicals contained no hazardous waste.

TA-41

42. TA-41 generates hazardous waste.

43. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste without a permit or interim status.

44. Based on information and belief, at the time of the FY97 inspection, four 5 gallon carboys containing naphtha and mineral spirits were found abandoned at TA-41, Bldg. 30, Room 264.

TA-46

45. TA-46 has a hazardous waste satellite storage area.

46. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34.(c)(1)(i)) which incorporates 40 CFR § 265.173(a) requires containers holding hazardous waste to be closed during storage, except when necessary to add or remove waste.

47. At the time of the FY97 inspection, NMED found a 5 gallon container of hazardous waste open at TA-46, Bldg. 24, Room B-6.

48. The 5 gallon container was marked with words stating that it contained 3% HCL with a trace of mercury.

49. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(b)) provides that a generator who accumulates hazardous waste for more than ninety days is an operator of a storage facility and is subject to the requirements of 40 CFR Part 264 and 40 CFR Part 265 and permit requirements under 40 CFR Part 270.

50. At the time of the FY97 inspection, NMED found at least 21 containers of hazardous materials discarded and stored without a permit at TA-46, Bldg. 31, Room 103. The following containers were as follows: one 2 gallon of acetic acid (D002), one ¼ gallon hydrochloric acid (D002), one 500 ml of hydrofluoric acid (D002), one ¼ gallon nitric acid (D002), one ½ gallon sulfuric acid (D002), one 1/3 gallon nitric acid (D002), four 500 ml bottles of outdated Eastman Kodak White Reflectance Coating (D001 containing Barium Sulfate and ethanol with a flash point of 72° F), one 500 ml bottle of Kodak White Reflectance Paint, one 200 ml bottle of trifluoroacetic acid (D002), one tube of Iodo acetylene or CH₃I (D003), 1 jar of distilled mercury (D009), one 200 ml bottle of acetone (F003), one 1 gallon liquid Versatec (xerox toner premix Type M) (D001 with a flash point of 102° F), one 1/3 full can of Methly Alcohol (D001), one 1 gallon container Ancamine T-1, 1 gas cylinder of borazine (B₃N₃H₆), 1 small tube of H₃BH₃ (D003), and 1 container of H₃B.N(CH₃)₃.

51. At the time of the FY97 inspection, Respondents had abandoned these 21 containers since possibly 1991 and the storage area did not meet the requirements of a less than ninety day storage area and was not permitted to store hazardous waste for long term.

52. 20 NMAC 4.1.300 (incorporating 40 CFR 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR 262.11 (a)(b) and (c).

53. At the time of the FY97 inspection, Respondents had failed to make a hazardous waste determination on 21 containers, as described in paragraph 50, discarded since possibly 1991.

54. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the 21 containers contained no hazardous waste.

55. At the time of the FY 97 inspection, Respondents failed to determine if a container of Dippit 646 was hazardous waste when discarded at TA-46, Bldg. 208, under the tube canopy.

56. Respondents failed to determine if Dippit 646 was a hazardous waste when it was abandoned. Respondents have since stated that Dippit 646 is a hazardous waste and it is indicated as such in the MSDS.

57. At the time of the FY97 inspection, NMED found a 55 gallon container with unknown contents abandoned at TA-46, Bldg. 31, south side.

*conc
25*

58. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the abandoned 55 gallon container contained no hazardous waste.

59. At the time of the FY97 inspection, NMED found two 1 liter abandoned containers with unknown contents at TA-46, Bldg. 30, Room 106.

60. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the two 1 liter containers contained no hazardous waste.

61. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status.

62. At the time of the FY97 inspection, at least 5 containers with regulated hazardous wastes, methyl ethyl ketone (D035, F005) and toluene (F006), were found abandoned and not under the control of the operator in the laboratory hood at TA-46, Bldg. 41, Room 105.

TA-50

63. TA-50 generates hazardous waste.

64. Respondents' Permit Module II F. and 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) requires RCRA facility personnel to take part in an annual review of initial training as required under §264.16(a).

65. At the time of the FY97 inspection, a review of facility training records revealed that the following individuals had not received the annual refresher training required for facility personnel at TA-50: Paul Abercrombie, Rick Alexander, Julie Meadows and Robert Gonzales.

TA-53

66. TA-53 generates hazardous waste.

67. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

68. At the time of the FY97 inspection, NMED found three 500ml containers with unknown contents, labeled pending analysis and dated 9-11-96 at TA-53, Bldg. 1, Room D-126 with containers labeled hazardous waste.

69. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the container contained no hazardous waste.

TA- 54 - Permitted Hazardous Waste Storage Area

70. TA-54 is a permitted hazardous waste storage area at LANL.

71. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

72. At the time of the FY97 inspection, a container of Cyanuric Fluoride, was not adequately determined to be a hazardous waste and was inaccurately labeled as “non-regulated” at TA-54, Area L, Bldg. 69, LP6.

73. 20 NMAC 4.1.300 (incorporating 40 CFR 262.34.(c)(1)(ii)) requires containers holding hazardous waste to be marked with the words “hazardous waste” or other words that identify the contents of the container.

74. At the time of the FY97 inspection, a container of Cyanuric Fluoride, was characterized improperly and inaccurately labeled as “non-regulated” at TA-54, Area L, Bldg. 69, LP6.

75. In a written memorandum dated July 10, 1997, the Material Safety Data Sheet (MSDS) stated that the material is a “hazardous waste for it’s characteristic of reactivity.” A LANL employee also informed NMED that the container was “misabeled” and “should have been labeled D003 for cyanide.”

76. Respondents' hazardous waste storage permit for TA-54 prohibits the storage of waste which is restricted from land disposal unless such container is clearly marked to identify its contents and the date each period of accumulation begins in Permit Module III.B.3.b, which incorporates the requirements of 40 CFR § 268.50 (a)(2)(i).

77. At the time of the FY97 inspection, a review of the facility inspection logs indicate that numerous mixed waste containers within the permitted storage area had faded, illegible, and incomplete labels at TA-54, Area L.

78. At the time of the FY97 inspection, mixed waste storage shafts #36 and #37 were not marked or labeled in a manner which clearly identifies the contents of containers in the storage shafts as mixed waste at TA-54, Area L.

79. 20 NMAC 4.1.800 (incorporating 40 CFR § 268.7(a)(1)(ii)) requires the generator to notify the treatment or storage facility in writing that the waste being shipped does not meet the applicable treatment standards set forth in subpart D and therefore must include the following information on the notification; the waste constituents that the treater must monitor and whether the waste is a nonwastewater or wastewater treatability group.

80. At the time of the FY97 inspection, a review of facility manifest numbers 95940157, 95940159, 95940158, 95940145 and 95940141 and their associated Land Disposal Restriction (LDR) notices revealed that the appropriate waste constituents were not marked on the LDR notices at TA-54.

81. At the time of the FY97 inspection, a review of facility manifest numbers 97013 and 97016 and their associated LDR revealed that the proper treatability group was not marked on the LDR notices at TA-54.

TA-55

82. TA-55 generates hazardous waste.

83. Respondents' hazardous waste storage permit requires that facility personnel obtain annual refresher training , incorporating 20 NMAC 4.1.500 (40 CFR § 264.16(c)).

84. At the time of the FY97 inspection, a review of facility training records revealed that the following four individuals had not received the annual refresher training required for facility personnel at TA-55: Basil J. Lewis, Chester A. Smith Jr., Susan Ramsey and Willard E. Williams.

85. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

86. At the time of the FY97 inspection, a 5 gallon container of "Viro-Duc" Component B was incorrectly determined to be non-regulated and was found labeled as non-regulated at the interim storage area at TA-55, Bldg. 0, outside of Bldg. 4.

87. The 5 gallon container of "Viro-Duc" is an ignitable hazardous waste which has a flash point of 137° F and was identified in the MSDS sheet.

TA- 60

88. TA-60 generates hazardous waste.

89. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

90. At the time of the FY97 inspection, a 55 gallon container of yellow paint waste was found open and not stored correctly for possible hazardous waste at TA-60, Bldg. 131, outside storage building.

91. Based on the history of noncompliance noted in Paragraphs 8 through 10 above, and the violations noted in Paragraphs 12 through 90 above, Respondents are high priority violators of 20 NMAC. 4.1

CONCLUSIONS OF LAW

1. Respondents are each a "person" as defined at §74-4-3.K. of HWA and §101 of the New Mexico Hazardous Waste Management Regulations at 20 NMAC 4.1.101 through .1109, which incorporates, with a few exceptions, federal regulation at 40 CFR Parts 260 through 270.

2. Respondents manage "hazardous waste" as defined at §74-4-3.I. of HWA, and 20 NMAC 4.1.101, which incorporates, with few exceptions, federal regulation 40 CFR §260.10.

3. Respondent DOE is an "owner" and a "co-operator" of an "existing hazardous waste management facility" as defined at 20 NMAC 4.1.101 which incorporates with a few exceptions, federal regulation 40 CFR §260.10.

4. Respondent UC is an "operator" of an "existing hazardous waste management facility" as defined at 20 NMAC 4.1.101, which incorporates with a few exceptions, federal regulation 40 CFR §260.10.

5. Respondents engage in the "treatment", "storage" and "disposal" of hazardous waste as defined at §74-4-3.N. and Q., respectively, of the HWA, and 20 NMAC 4.1.100, which incorporates, with a few exceptions, federal regulation 40 CFR § 260.10.

COUNTS 1 THROUGH 6: ACCUMULATION OF HAZARDOUS WASTE NOT UNDER CONTROL OF GENERATOR [TA-3, TA-21, TA-41, TA-46, TA-53]

6. Paragraphs 1 through 16 (TA-3), 27 through 31 (TA-21), 42 through 44 (TA-41), 61 through 62 (TA-46), and 64 through 67 (TA-53) are hereby incorporated by reference.

7. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding a 2 liter container of hazardous waste by storage in lieu of disposal, which was not under the control of the generator, at TA-3, Ion Beam Facility, Basement Laboratory.

8. Respondents violated of 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) by discarding two 1 gallon containers of characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-21, Bldg. 59. *fact 29-895*

9. Respondents violated of 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding a 55 gallon container of reactive hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-21, JCI-ESA/TSC, basement.

10. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) by discarding four 5 gallon containers of characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-41, Bldg. 30, Room 264. *(vp 44) admit*

11. Respondents have violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding at least 5 containers of listed and characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-46, Bldg. 41, Room 105. *LANL 57-answer 261.7*

12. Respondents have violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34 (c) (1)) by discarding three 500 ml containers of possible mixed waste which was not under the *PP 62 factual*

control of the operator at TA-53, Bldg. 1, Room D-126.

COUNT 7: FAILURE TO MARK ACCUMULATION DATE [TA-3]

13. Paragraphs 1 through 18 are hereby incorporated by reference.

14. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34 (a)(2))

by failing to place the accumulation start date on four containers of hazardous waste in the less than ninety day storage area located at TA-3. Ion Beam Facility.

*HP 18 facts
HP 13 answer*

COUNT 8: NO OPERABLE DECONTAMINATION EQUIPMENT [TA-18]

15. Paragraphs 1 through 11 and 19 through 21 are hereby incorporated by reference.

16. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §§ 262.34 (a)(4))

by failing to have operable decontamination equipment or water of sufficient pressure and volume available at the less than ninety day storage area at TA-18.

*LAVL #15, 16
HP 20+21 facts
corrective action not good enough*

COUNT 9: INADEQUATE HAZARDOUS WASTE DETERMINATION [TA-21]

17. Paragraphs 1 through 11 and 22 through 26 are hereby incorporated by reference.

18. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) by

failing to perform an adequate hazardous waste determination on the unknown contents of a discarded 2 gallon container at TA-21, Bldg.1, east side dock.

*HP 24 facts
50,000 PH
no ignitable characteristics
and set of data process knowl
confirmation
Semi vol.
only*

COUNTS 10 THROUGH 20: FAILURE TO PERFORM HAZARDOUS WASTE DETERMINATION [TA-21, TA-33, TA-46, TA-53, TA-54, TA-55, TA-60]

19. Paragraphs 1 through 11, 32 through 34 (TA-21), 35 through 41 (TA-33), 52 through 60 (TA-46), 64 through 67 (TA-53), 68 through 70 (TA-54), 83 through 85 (TA-55), and 87 through 88 (TA-60) are hereby incorporated by reference.

20. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by

failing to perform a hazardous waste determination on the unknown contents of an abandoned 5

fact #33

gallon container at TA-21, Shed 402.

Count 11

21. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous waste determination on waste lead solder at TA-33, Bldg.39.

Fact 37-39

Count 12

22. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on discarded photo processing chemicals in TA-33, Bldg. 114, Room 125.

fact 40
explanat
35

Count 13

23. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on 21 various containers discarded since 1991 in TA-46, Bldg. 31, Room 103.

fact 50
explanat
45+(46)

Count 14

24. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a container of Dippit 646 discarded at TA-46, Bldg. 208, under the tube canopy.

answer 50

Count 15

25. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a discarded 55 gallon container with unknown contents at TA-46, Bldg. 31, south side.

fact 57

26. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on two 1 liter abandoned containers with unknown contents at TA-46, Bldg. 30, Room 106.

27. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on three 500 ml containers with unknown contents, at TA-53, Bldg. 1, Room D-126.

answer

28. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform an adequate hazardous determination on a container of Cyanuric Fluoride at

TA-54, Area L, Bldg. 69, LP6.

29. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a 5 gallon container of "Viro-Duc" Component B at TA-55, Bldg. 0, outside of Bldg. 4.

30. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a 55 gallon container of yellow paint waste at TA-60, Bldg. 131, outside storage building.

COUNT 21: OPEN CONTAINER [TA-46]

31. Paragraphs 1 through 11 and 45 through 48 are hereby incorporated by reference.

32. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR 262.34(c)(1)(i)) by failing to keep a hazardous waste container closed in the satellite accumulation area at TA-46, Bldg. 24, Room B-6.

COUNT 22: WASTES STORED IN EXCESS OF 90 DAY STORAGE LIMIT [TA-46]

33. Paragraphs 1 through 11 and 49 through 51 are hereby incorporated by reference.

34. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(b)) by exceeding the ninety day storage time limit on at least 21 containers of discarded hazardous waste without a permit at TA-46, Bldg. 31, Room 103.

COUNT 23: LACK OF ANNUAL REFRESHER TRAINING FOR PERSONNEL [TA-50]

35. Paragraphs 1 through 11 and 61 through 63 are hereby incorporated by reference.

36. Respondents violated 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) or, alternatively, 20 NMAC 4.1.600 (incorporating 40 CFR 265.16 (d)(4)) by failing to ensure annual refresher training is taken by personnel at TA-50 as required in the Hazardous Waste Storage Permit Module II.F.

COUNT 24: IMPROPER LABELING [TA-54]

37. Paragraphs 1 through 11 and 71 through 73 are hereby incorporated by reference.

38. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34 (c)(1)(ii)) by failing to properly label a container of reactive hazardous waste at TA-54, Area L, Bldg. 69, Row 4, LP6.

COUNT 25: IMPROPER LABELING/LAND DISPOSAL RESTRICTION WASTE

[TA-54]

39. Paragraphs 1 through 11 and 74 through 76 are hereby incorporated by reference.

40. Respondents violated the Hazardous Waste Storage Permit Module III.B.3.b and 20 NMAC 4.1.800 (incorporating 40 CFR §268.50(a)(2)(i)) by failing to maintain adequate labels on numerous containers of mixed waste within the permitted storage area of TA-54, Area L.

41. Respondents violated the Hazardous Waste Storage Permit Module III.B.3.b and 20 NMAC 4.1.800 (incorporating 40 CFR 268.50 CFR §268.50 (a)(2)(i)) by failing to mark or label the contents and the accumulation start date on the storage shafts #36 and #37 at TA-54, Area L.

COUNT 26 AND 27: VIOLATIONS OF LDR NOTICES [TA-54]

42. Paragraphs 1 through 11 and 77 through 79 are hereby incorporated by reference.

43. Respondents violated 20 NMAC 4.1.800 (incorporating 40 CFR §268.7(a)(1)(ii)) by failing to mark the proper waste constituents on LDR notices for five manifests at TA-54.

44. Respondents violated 20 NMAC 4.1.800 (incorporating 40 CFR § 268.7(a)(1)(ii)) by failing to mark the proper treatability group on LDR notices for manifest Numbers 97013 and 97016, dated 2/27/97, at TA-54.

COUNT 28: LACK OF ANNUAL REFRESHER TRAINING FOR PERSONNEL

[TA-55]

45. Paragraphs 1 through 11 and 80 through 82 are hereby incorporated by reference.

46. Respondents violated 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) or, alternatively, 20 NMAC 4.1.600 (incorporating 40 CFR 265.16 (d)(4)) failing to ensure that annual refresher training is taken by personnel at TA-55 as required in the Hazardous Waste Storage Permit Module II.F.

CIVIL PENALTY

1. Section 74-4-10 of the HWA authorizes the assessment of a civil penalty of up to ten thousand dollars (\$10,000) per day for each violation of the HWA or the regulations promulgated thereunder. Complainant hereby assesses a civil penalty of One Million One Hundred Sixty Eight Thousand Seven Hundred Sixty Six Dollars (\$1,168,766), against Respondents. The penalty is based on the seriousness of the violations and the lack of good faith efforts on the part of Respondents to comply with the applicable requirements, and any economic benefit resulting from noncompliance accruing to Respondents and such other matters as justice may require. The penalty amount is calculated pursuant to the NMED's Civil Penalty Policy.

The penalty for each violation is:

<u>VIOLATION</u>	<u>AMOUNT</u>
¶ 7 Hazardous waste not under control of generator	\$15,525 12,420
¶ 8 Hazardous waste not under control of generator	\$ 9,300 7,440

¶ 9	Hazardous waste not under control of generator	\$145,000	—
¶ 10	Hazardous waste not under control of generator	\$27,675	22,140
¶ 11	Hazardous waste not under control of generator	\$27,675	22,140
¶ 12	Hazardous waste not under control of generator	\$30,983	—
¶ 14	No accumulation start date on containers	\$15,525	4,440
¶ 16	No operable eyewash	\$4,500	720
¶ 18	Inadequate hazardous waste determination made	\$2,400	1,920
¶ 20	Failure to perform a hazardous waste determination	\$2,400	1,920
¶ 21	Failure to perform a hazardous waste determination	\$6,000	4,800
¶ 22	Failure to perform a hazardous waste determination	\$54,600	43,680
¶ 23	Failure to perform a hazardous waste determination	\$200,700	160,560
¶ 24	Failure to perform a hazardous waste determination	\$54,600	43,680
¶ 25	Failure to perform a hazardous waste determination	\$2,400	1,920
¶ 26	Failure to perform a hazardous waste determination	\$2,400	—
¶ 27	Failure to perform a hazardous waste determination	\$34,425	22,140
¶ 28	Failure to perform a hazardous waste determination	\$54,600	22,140 (21,200)
¶ 29	Failure to perform a hazardous waste determination	\$6,000	900
¶ 30	Failure to perform a hazardous waste determination	\$54,600	43,680
¶ 32	Failure to keep a container closed	\$1,125	—
¶ 34	Illegal storage past 90 days	\$200,700	160,560
¶ 36	Lack of annual refresher training	\$54,600	7,520
¶ 38	Failure to properly label	\$54,600	43,680
¶ 40	Failure to properly label	\$27,675	—

¶ 41	Failure to properly label	\$21,218	—	
¶ 43	Failure to mark the appropriate waste codes on LDRs	\$1,470	720	
¶ 44	Failure to mark the treatability group on LDRs	\$1,470	1,260	1050
¶ 45	Lack of annual refresher training	\$54,600	22,140	
			654,450	

Payment shall be made to the State of New Mexico Hazardous Waste Emergency Fund by certified check, bank draft, or other guaranteed negotiable instrument, and mailed to or hand delivered to Karen Breslin, Office of General Counsel, New Mexico Environment Department, P.O. Box 26110, Santa Fe, New Mexico 87502.

654,450
- 26,030
628,420

SCHEDULE OF COMPLIANCE

2. Based on the foregoing Findings and Conclusions, Respondents are ordered to comply with the following Schedule of Compliance:

- A. Within 30 calendar days from receipt of this Order, Respondents shall perform adequate hazardous waste determinations for all wastes identified in paragraph 12. Respondents shall provide documentation of analyses or proper determination and disposition.
- B. Within 30 calendar days from receipt of this Order, Respondents shall provide documentation of measures taken to gain appropriate control over the hazardous waste stored for an indefinite period of time after a project ends or funding disappears, and in particular the wastes identified in paragraphs 11, 22, 23, 26, 28, and 34.
- C. Within 30 calendar days from receipt of this Order, Respondents shall provide documentation that required annual refresher training has been

provided for facility personnel identified in paragraph 36 and 46 and provide a plan to prevent this violation from happening in the future.

- D. Within 30 calendar days from receipt of this Order, provide a copy of the plan put into effect to correct the eye wash violation in paragraph 16.
- E. Within 10 calendar days from receipt of this Order, ensure that containers described in paragraph 40 are properly labeled and properly label the mixed waste storage shafts with appropriate signs to identify contents of the shafts identified in paragraph 41, and provide documentation of same within 30 calendar days.
- F. Within 30 calendar days from receipt of this Order, provide documentation of proper storage or disposal of all discarded or abandoned materials/wastes identified in paragraphs 23, 24, 25, and 28.
- G. Within 30 calendar days from receipt of this Order, provide documentation of corrections to the deficiencies on all LDR's noted in paragraphs 43 and 44.
- H. Within 30 calendar days from receipt of this Order, provide a plan to adequately address testing and disposal of unknowns. Paragraph 18 was not tested or handled correctly following the inspection.

Compliance with the violations noted in paragraphs 7, 8, 9, 10, 14, 20, 21, 22, 27, 29, 30, 32, and 38 were appropriately addressed by the Respondent at the time of the inspection or within an appropriate timeframe. No further action is required on these violations.

NOTICE

- 3. If Respondents fail to timely comply with the Schedule of Compliance or if

Respondents elect not to comply with the schedule of Compliance and to challenge it as set forth below, the Secretary may assess additional civil penalties of not more than twenty-five thousand dollars (\$25,000) for each day of continued noncompliance pursuant to §74-4-10.C. of the HWA.

NOTICE OF OPPORTUNITY TO ANSWER AND REQUEST A HEARING

4. Respondents have a right to request a hearing pursuant to §74-4-10.H. of the HWA and 20 NMAC 1.5.200 of NMED's Adjudicatory Procedures by filing a written request for Hearing with the Hearing Clerk within thirty (30) calendar days after receipt of this Order. The Request for Hearing shall include an Answer. The Answer shall:

- A. clearly and directly admit or deny each of the factual assertions contained in the Compliance Order/Determination; but where the Respondent/Complainant has no knowledge of a particular factual assertion and so states, the assertion may be denied on basis. Any allegation of the Compliance Order/Determination not specifically denied shall be deemed admitted;
- B. indicate any affirmative defenses upon which the Respondent/Complainant intends to rely. Any affirmative defense not asserted in the Request for Hearing, except a defense asserting lack of subject matter jurisdiction, shall be deemed waived;
- C. be signed under oath or affirmation that the information contained therein is to the best of the signers knowledge believed to be true and correct; and
- D. have a copy of the compliance Order/Determination attached.

5. A hearing upon the issues raised by the Order and Answer shall be held upon the request of the Respondents. NMED's Adjudicatory Procedures shall govern all hearing and pre-hearing procedures. Respondents may contact the Hearing Clerk for a copy of these regulations.

The Hearing Clerk's name and address is:

Tamella Lakes, Hearing Clerk

P.O. Box 26110

1190 St. Francis Drive

Harold Runnels Building, N4084

Santa Fe, New Mexico 87502

(505) 827-2842

FINALITY OF ORDER

6. This Order shall become final unless Respondents file a written Request for Hearing and Answer within thirty (30) calendar days of receipt of the Order. Failure by the Respondents to file an Answer constitutes an admission of all facts alleged in the Order and a waiver of Respondent's right to a hearing under §74-4-10 of the HWA.

SETTLEMENT CONFERENCE

7. Whether or not Respondents file an Answer and Request for Hearing, Respondents may confer with Complainant concerning settlement. A request for a settlement conference does not extend the thirty (30) day period during which the Answer and Request for Hearing must be submitted. The settlement conference may be pursued as an alternative to, or simultaneously with, the hearing proceedings. Respondents may appear at the settlement conference or be represented by counsel.

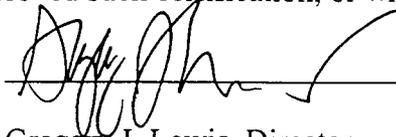
8. Any settlement reached by the parties shall be approved by a stipulated final Order of the Secretary of NMED pursuant to the conditions set forth in 20 NMAC 1.5.601. The issuance of such an Order shall serve to resolve all issues raised in the Order, shall be final and binding on all parties to the Order, and shall not be appealable.

9. To explore the possibility of settlement in this matter, contact Ms. Debby Brinkerhoff of the Environment Department. P.O. Box 26110, 1220 St. Francis Drive, Santa Fe, NM 87501, telephone number (505) 827-1508.

TERMINATION

10. Compliance with the requirements of this Order does not relieve Respondents of their obligation to comply with all applicable laws and regulations. This Order shall terminate when Respondents certify that all requirements of the Order have been completed and NMED has approved such certification, or when the Secretary approves a stipulated final order.

By:



Gregory J. Lewis, Director

Date:

December 15, 1999

Water and Waste Management Division

CERTIFICATE OF SERVICE

I hereby certify that the foregoing Administrative Compliance Order was mailed postage prepaid as follows on this 15th day of December, 1999 to the following:

Via Certified Mail, Return Receipt Requested:

Mr. David A. Gurule, Area Manager
U.S. Department of Energy
Los Alamos Area Office
528 35th Street, MS A316
Los Alamos, NM 87544

Dr. John C. Browne, Director
Los Alamos National Laboratory
P.O. Box 1663, MS A100
Los Alamos, NM 87545

Tavis Fox
Attorney NMED/OGC

Respondents are required to comply with all terms and conditions of its HWA permit. NMSA 1978, Section 74-4-10 of the HWA and 20 NMAC 4.1.900 (incorporating 40 CFR 270.4).

RCRIS Inspection/Enforcement Action Input Form

Date Submitted 12/14/99 Responsible Person Debby Brinkhoff

Initial Inspection

EPA ID#: NM0986676807

Facility Name: Los Alamos National Lab

Facility Address _____

City Los Alamos State NM Zip Code _____

Inspection Date: 7/8/97 Agency: HRMB/Inspectors

Type of Inspection: CET Reason for Inspection: Annual/Grant

Comments _____

Enforcement Actions

EPA ID#: NM0986676807

Violation Sequence Number(s): _____

Date Enforcement Issued: 12/14/99 Enforcement Type: CET

Actual Compliance Date: _____

Penalty Assessed \$ 1,168,766 Penalty Settled: \$ _____

SEP Enforcement Code: _____

SEP Amount \$ _____

Comment: _____

RCRIS Violation Worksheet

1

Facility Name: Los Alamos National Lab
EPA ID#: NMD 9866 76 807
Inspection Date: 7/8/97 Inspection Type: CEI
Responsible Person: D. Ikey Brinkerhoff
Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
Coverage Area/Violation Type: GGR
Class: I Priority (9=SNC): 9
Regulation Violated: 262.34(c) + 261.2(b)(3)
Comment: Failure to keep a 2 liter container
under control of the generator. TA-3
Ion Beam Facility, Basement Lab.

Violation Sequence Number: _____ Entered By: _____
Coverage Area/Violation Type: GGR
Class: I Priority (9=SNC): 9
Regulation Violated: 262.34(c) + 261.2(b)(3)
Comment: Failure to keep a 2 - 1 gallon
containers under the control of the generator
TA-21, Bldg. 59

Violation Sequence Number: _____ Entered By: _____
Coverage Area/Violation Type: GGR
Class: I Priority (9=SNC): 9
Regulation Violated: 262.34(c)
Comment: 1 half full 55 gallon container
not under control of the operator.
TA-21, JC1-ESA/TSC basement

Facility Name: Las Alamos National Lab
 EPA ID#: NM90 986676807
 Inspection Date: 7/8/97 Inspection Type: CEI
 Responsible Person: Debby Brinkhoff
 Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.34 (c)
 Comment: Failure to keep four 5 gallon Carboys
of naphtha + mineral spirits under control of the generator
TA-41, Bldg, 30, Rm 264.

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.34 (c) + 261 (b)(3)
 Comment: failure to keep 5 discarded containers
under control of the operator. TA46, Bldg 41
Room 105

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.34 (c)
 Comment: failure to keep three discarded 500 ml
containers of possible mixed waste under
control of the operator. TA-53, Bldg. 1 Room D-126

RCRA Violation Worksheet

3

Facility Name: Los Alamos National Lab
 EPA ID#: NMRA 9866 76807
 Inspection Date: 7/8/97 Inspection Type: CEI
 Responsible Person: Dubley Brinkerhoff
 Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.34 (a)(2)
 Comment: Failure to place accumulation start date on 4 containers located in the <90 day storage area. TA-3, Ion Beam Facility <90 day storage area

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.34 (a)(4)
 Comment: Failure to have an operable eyewash, decontamination equipment in the <90 day storage area. TA-18 <90 day storage area

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to perform an adequate hazardous waste determination on a discarded 2 gallon container with unknown contents. TA-21, Bldg 1, east side dock.

Facility Name: Los Alamos National Lab
 EPA ID#: NM0986676807
 Inspection Date: 7/8/97 Inspection Type: CEI
 Responsible Person: Dorley Brinkhoff
 Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GG R
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to perform an adequate hazardous waste determination on a discarded 5 gallon container, 2/3 full of unknown contents TA-21, Shed 402

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GG R
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to perform an adequate hazardous waste determination on discarded lead solder TA-33, Bldg. 39,

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GG R
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to perform an adequate hazardous waste determination on discarded photo processing chemicals, TA-33, Bldg. 114, Rm 125

Facility Name: Los Alamos National Lab
 EPA ID#: NM D 9866 76807
 Inspection Date: 7/8/97 Inspection Type: CEI
 Responsible Person: Debbie Brinkerhoff
 Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GG R
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to make a hazardous waste determination of 21 containers, TA-46, Bldg. 31, Rm 103.

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GG R
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to make a hazardous waste determination of one discarded container of Dipypit 646, TA-46, Bldg. 208, under tube canopy.

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GG R
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to make a hazardous determination of one full discarded 55 gallon drum, TA-46, South side of Bldg. 31,

6

Facility Name: Los Alamos National Lab
 EPA ID#: NM0986676807
 Inspection Date: 7/8/97 Inspection Type: CEI
 Responsible Person: Dorley Brinkerhoff
 Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to make a hazardous waste determination of two 1 liter discarded containers. TA-46, Bldg. 30, Rm 106.

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to make a hazardous waste determination of 3 500ml containers of possible mixed waste. TA-53, Bldg 1, Room D-126.

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to make a hazardous waste determination of a discarded container of cyanuric fluoride, TA-54, Areal, Bldg. 69

Row 4, LP 6.

Facility Name: C Los Alamos National Lab
 EPA ID#: NM 9866 76807
 Inspection Date: 7/8/97 Inspection Type: CEI
 Responsible Person: Dobby Brinkerhoff
 Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to determine if 1 five gallon can of "Viro-Duc" fiberglass bonding component B was a hazardous waste. TA-55, Bldg. 0, outside Bldg. 4, Interim storage site.

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.11
 Comment: Failure to determine if one 55 gallon container of yellow paint was hazardous. TA-60, Bldg. 131 (outside storage Bldg.)

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.34 (c)(1)(i)
 Comment: Failure to keep a five gallon container of hazardous waste labeled 3% HCl closed. TA-46, Bldg. 24, Room B-6,

RCRA VIOLATION WORKSHEET

8.

Facility Name: Los Alamos National Lab
 EPA ID#: NM986676807
 Inspection Date: 7/8/97 Inspection Type: CEI
 Responsible Person: Deby Brinkerhoff
 Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: I Priority (9=SNC): 9
 Regulation Violated: 262.34(b)
 Comment: Illegal storage past 90 days of 21 containers of hazardous waste w/o a permit TA-46, Bldg. 31, Rm 103

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GPT
 Class: II Priority (9=SNC): 9
 Regulation Violated: 264.16(a), permit module II.F
 Comment: Failure to ensure that personnel take part in an annual refresher training as required for facility personnel. TA-50

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GGR
 Class: ~~II~~ ~~I~~ I Priority (9=SNC): 9
 Regulation Violated: 262.34(c)(1)(ii)
 Comment: Failure to label a container of cyanuric fluoride as hazardous waste, TA-54, Area Bldg. 69, Row 4, LP6.

Facility Name: Los Alamos National Lab
 EPA ID#: NM0986676807
 Inspection Date: 7/8/97 Inspection Type: CEI
 Responsible Person: Dorley Brinkerhoff
 Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GLB
 Class: I Priority (9=SNC): 9
 Regulation Violated: 268.50 (a)(2)(i) + permit module III B.3(b)
 Comment: Failure to properly identify the contents clearly and the accumulation date on 2 or more discarded 55 gallon drums of mixed waste stored in permitted storage - TA-54, area C, main permitted storage -

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: ~~GLB~~ GLB
 Class: I Priority (9=SNC): 9
 Regulation Violated: 268.50 (a)(2)(ii) + permit module III B.3.b
 Comment: Failure to label mixed waste storage shafts #36 #37, identifying them as Hazardous Waste + failing to put the start accumulation dates on labels TA-54 area

Violation Sequence Number: _____ Entered By: _____
 Coverage Area/Violation Type: GLB
 Class: I Priority (9=SNC): 9
 Regulation Violated: 268.7 (a)(1)(ii) Failure
 Comment: to mark appropriate waste constituents on Land Disposal Restriction notices for manifests TA-54, Facility Office.

(10.)

Facility Name: Los Alamos National Lab
EPA ID#: NMD 986676807
Inspection Date: 2/8/97 Inspection Type: CEI
Responsible Person: Dobby Brinkhoff
Scheduled Compliance Date: 1/15/99

Violation Sequence Number: _____ Entered By: _____
Coverage Area/Violation Type: GLB
Class: I Priority (9=SNC): 9
Regulation Violated: 268.7 (a)(1)(ii)
Comment: Failure to mark the appropriate treatability groups on the Land Disposal Restriction notices for manifests. TA-54 Facility Offices.

Violation Sequence Number: _____ Entered By: _____
Coverage Area/Violation Type: GRR
Class: II Priority (9=SNC): 9
Regulation Violated: 264.16 (c) - permit module II.F
Comment: Failure to ensure that personnel have annual refresher training as required.
TA-55

Violation Sequence Number: _____ Entered By: _____
Coverage Area/Violation Type: _____
Class: _____ Priority (9=SNC): _____
Regulation Violated: _____
Comment: _____

FACT SUMMARY SHEET

The Hazardous and Radioactive Materials Bureau inspected Los Alamos National Laboratory for five months during 1997. This was called a "wall to wall" inspection, the first of its kind by HRMB at Los Alamos Laboratory. Due to the nature of the inspection, a large number of violations were discovered. All of these violations were repeat violations, this means that the same type of problems were found during previous inspections. The total penalty for all these violations is \$1,168,766.

Twenty nine violations were found ranging from 1 violation of inoperable decontamination equipment (eyewash), 1 violation of missing accumulation start date on container labels, 1 violation for failure to keep a container closed, 1 violation for illegal storage past 90 days, 1 violation for failure to properly mark the appropriate waste codes on Land Disposal Restriction Notices, 1 violation for failure to mark the treatability group on Land Disposal Restriction Notices, 2 violations for lack of annual refresher training, 3 violations of failure to properly label, 6 violations of hazardous waste not under the control of the generator and 12 violations of failure to determine if the waste was hazardous.

**STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT**

**IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515**

**COMPLIANCE ORDER
HRM -99-03(CO)
(1997 Inspection)**

RESPONDENTS.

ADMINISTRATIVE COMPLIANCE ORDER

The Secretary of Environment, acting through the Director of the Water and Waste Management Division of the New Mexico Environment Department (NMED), issues this Administrative Compliance Order (Order) to the United States Department of Energy (DOE) and the Regents of the University of California (UC)(collectively referred to as Respondents), pursuant to the New Mexico Hazardous Waste Act (HWA), NMSA 1978 § 74-4-10 (Repl.Pamp. 1993).

FINDINGS OF FACT

1. NMED is the agency within the executive branch of the government of the State of New Mexico charged with the administration and enforcement of the HWA and New Mexico Hazardous Waste Management Regulations (HWMR), 20 NMAC 4.1.101 through .1109.
2. Respondents are DOE and UC, who notified the Environmental Protection Agency (EPA), of their hazardous waste generation activities on November 19, 1980.
3. DOE is an agency of the federal government and the owner and co-operator of Los Alamos National Laboratory (LANL).

4. UC is a public educational institution of the State of California and the management and operating contractor for LANL pursuant to a contract with DOE, and is a co-operator of LANL.

5. LANL is principally located in Los Alamos County, New Mexico, approximately sixty miles northeast of Albuquerque and twenty-five miles northwest of Santa Fe. The LANL site encompasses approximately forty-three square miles.

6. LANL was chosen as the site for the wartime development of the atomic bomb. The facility was established as a military reservation, and operations began in 1943. Since 1943, the primary mission of LANL has been nuclear weapons research and development. In addition, the facility does work in magnetic and internal fusion, nuclear fission, nuclear safeguards and security, laser isotope separation, and medical isotope development.

7. In association with the activities identified above, LANL generates, treats and stores hazardous wastes and mixed hazardous and radioactive wastes. LANL has also applied for and received a HWA permit from NMED for the storage and management of hazardous wastes and mixed hazardous and radioactive wastes.

8. Over the past seven years, NMED has issued numerous compliance orders seeking compliance and civil penalties. In 1992 through 1994, NMED inspected LANL, discovered violations of HWMR-7, and issued Respondents compliance orders (93-01, 93-02, 93-03, 93-04, 94-09, 94-12), which sought compliance and assessed civil penalties. In 1995, NMED inspected LANL, discovered violations of HRMW, 20 NMAC 4.1, and issued LANL and DOE compliance orders (95-03, 95-08), which sought compliance and assessed civil penalties. In 1996, NMED inspected LANL, discovered violations of the HRMW, 20 NMAC 4.1, and issued a letter of violation.

9. The violations cited in the enforcement actions described above in paragraph 8, included, but were not limited to the following: failure to perform hazardous waste determinations (94-09), failure to keep a hazardous waste container closed (93-04, 94-09), failure to label hazardous waste containers (93-04, 94-09), failure to provide decontamination equipment at a less than ninety day storage area (93-04, 94-09), exceeding storage time limits for hazardous waste (93-04, 94-09), manifesting violations (93-04, 94-09), LDR violations (1993 EPA multi-media), training violations (93-04, 94-09) and accumulation of waste not under control of the generator (94-09).

10. As a result of the compliance orders described above in paragraph 9, Respondents entered into an administrative order on consent (1992 - 1994) and stipulated final order (SFO) (1995) and agreed to a schedule of compliance and the payment of civil penalties.

11. Between July 8, 1997 and December 8, 1997, NMED performed a compliance evaluation inspection (FY 97 Inspection) of LANL to determine Respondents' compliance status with the HWA and HWMR, 20 NMAC 4.1. The FY 97 inspection involved all technical areas (TA) at LANL. The following violations were discovered at TA-3, TA-18, TA-21, TA-33, TA-46, TA-54, TA-55 and TA-60.

TA-3, Ion Beam Facility

12. TA-3 generates hazardous waste.

13. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status.

14. At the time of the FY97 inspection, a 2 liter container of hydrochloric acid was found discarded and not under the control of the generator at TA-3, Ion Beam Facility, Basement Laboratory.

15. In a written memorandum dated December 18, 1997, LANL stated that the 2 liter container contained hydrochloric acid, a corrosive characteristic waste (D-002).

16. Upon information and belief, the two liter container had not been under Respondents' control for at least thirty-two days.

17. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(a)(2)) requires a generator to mark the date upon which each period of accumulation begins, clearly and visibly, for inspection on each container.

18. At the time of the FY97 inspection, NMED discovered that 4 containers of hazardous waste were not marked with the date upon which each accumulation period started. The containers that were not labeled correctly were: 2 bottles of Red X TV Corona Dope, 1 container of Handy Flux and one 2 liter gas cylinder.

TA-18

19. TA-18 generates hazardous waste.

20. 20 NMAC 4.1.300 (incorporating 40 CFR §§ 264.34(a)(4)) requires Respondents to have operable decontamination equipment and water at adequate volume and pressure, unless a demonstration to the Secretary is made that no hazard is posed.

21. At the time of the FY97 inspection, there was no operable eyewash or water of adequate volume available at the less than ninety day storage area in TA-18. LANL personnel admitted to these facts in writing. Further, LANL personnel stated that there is no policy on the operation of the eyewash for the less than ninety day storage area.

TA-21

22. TA-21 generates hazardous waste.

23. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

24. At the time of the FY97 inspection, NMED found a 2 gallon container with unknown contents discarded at TA-21, Bldg. 1, east side dock.

25. LANL personnel stated that the container was filled with oily dirt and sludge and contained no hazardous waste.

26. Upon request by NMED, LANL provided documentation to support its hazardous waste determination. Upon review, the documentation inadequately demonstrated that the container contains no hazardous waste.

27. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste without a permit or interim status.

28. At the time of the FY97 inspection, NMED found two 1 gallon containers discarded and not under the control of the generator for an unknown period of time at TA-21, Bldg. 59.

29. The two 1 gallon containers contained a listed hazardous waste, 111 Trichloroethylene.

30. At the time of the FY97 inspection, a 55 gallon container, half full of Titanium crystals was found discarded and not under the control of the generator at TA-21, JCI-ESA/TSC, basement.

31. Titanium crystals are reactive and characteristic hazardous waste (D003).

32. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

33. At the time of the FY97 inspection, NMED found a 5 gallon container, 2/3 full of unknown contents, discarded at TA-21, Shed 402.

34. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the 5 gallon container contained no hazardous waste.

TA-33 - Mobile Laser Staging Area

35. TA-33 generates hazardous waste.

36. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

37. At the time of the FY97 inspection, NMED found “waste lead solder” discarded for an unknown period of time at TA-33, Bldg. 39.

38. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the “waste lead solder” contains no hazardous waste.

39. Upon information and belief, the “waste lead solder” contained lead and is a characteristic hazardous waste. Further, LANL stated in a written memorandum, that after the NMED inspector noted the violation, it corrected the violation.

40. At the time of the FY97 inspection, at least 16 containers of photo processing chemicals were discarded for at least ten months at TA-33, Bldg. 114, Room 125.

41. Respondents' hazardous waste determination regarding these containers was inadequate and did not demonstrate to NMED that the photo processing chemicals contained no hazardous waste.

TA-41

42. TA-41 generates hazardous waste.

43. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste without a permit or interim status.

44. Based on information and belief, at the time of the FY97 inspection, four 5 gallon carboys containing naphtha and mineral spirits were found abandoned at TA-41, Bldg. 30, Room 264.

TA-46

45. TA-46 has a hazardous waste satellite storage area.

46. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34.(c)(1)(i)) which incorporates 40 CFR § 265.173(a) requires containers holding hazardous waste to be closed during storage, except when necessary to add or remove waste.

47. At the time of the FY97 inspection, NMED found a 5 gallon container of hazardous waste open at TA-46, Bldg. 24, Room B-6.

48. The 5 gallon container was marked with words stating that it contained 3% HCL with a trace of mercury.

49. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(b)) provides that a generator who accumulates hazardous waste for more than ninety days is an operator of a storage facility and is subject to the requirements of 40 CFR Part 264 and 40 CFR Part 265 and permit requirements under 40 CFR Part 270.

50. At the time of the FY97 inspection, NMED found at least 21 containers of hazardous materials discarded and stored without a permit at TA-46, Bldg. 31, Room 103. The following containers were as follows: one 2 gallon of acetic acid (D002), one ¾ gallon hydrochloric acid (D002), one 500 ml of hydrofluoric acid (D002), one ¼ gallon nitric acid (D002), one ½ gallon sulfuric acid (D002), one 1/3 gallon nitric acid (D002), four 500 ml bottles of outdated Eastman Kodak White Reflectance Coating (D001 containing Barium Sulfate and ethanol with a flash point of 72° F), one 500 ml bottle of Kodak White Reflectance Paint, one 200 ml bottle of trifluoroacetic acid (D002), one tube of Iodo acetylene or CH3I (D003), 1 jar of distilled mercury (D009), one 200 ml bottle of acetone (F003), one 1 gallon liquid Versatec (xerox toner premix Type M) (D001 with a flash point of 102° F), one 1/3 full can of Methly Alcohol (D001), one 1 gallon container Ancamine T-1, 1 gas cylinder of borazine (B3N3H6), 1 small tube of HBNH3 (D003), and 1 container of H3B.N(CH3)3.

51. At the time of the FY97 inspection, Respondents had abandoned these 21 containers since possibly 1991 and the storage area did not meet the requirements of a less than ninety day storage area and was not permitted to store hazardous waste for long term.

52. 20 NMAC 4.1.300 (incorporating 40 CFR 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR 262.11 (a)(b) and (c).

53. At the time of the FY97 inspection, Respondents had failed to make a hazardous waste determination on 21 containers, as described in paragraph 50, discarded since possibly 1991.

54. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the 21 containers contained no hazardous waste.

55. At the time of the FY 97 inspection, Respondents failed to determine if a container of Dippit 646 was hazardous waste when discarded at TA-46, Bldg. 208, under the tube canopy.

56. Respondents failed to determine if Dippit 646 was a hazardous waste when it was abandoned. Respondents have since stated that Dippit 646 is a hazardous waste and it is indicated as such in the MSDS.

57. At the time of the FY97 inspection, NMED found a 55 gallon container with unknown contents abandoned at TA-46, Bldg. 31, south side.

58. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the abandoned 55 gallon container contained no hazardous waste.

59. At the time of the FY97 inspection, NMED found two 1 liter abandoned containers with unknown contents at TA-46, Bldg. 30, Room 106.

60. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the two 1 liter containers contained no hazardous waste.

61. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status.

62. At the time of the FY97 inspection, at least 5 containers with regulated hazardous wastes, methyl ethyl ketone (D035, F005) and toluene (F006), were found abandoned and not under the control of the operator in the laboratory hood at TA-46, Bldg. 41, Room 105.

TA- 50

63. TA- 50 generates hazardous waste.

64. Respondents' Permit Module II F. and 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) requires RCRA facility personnel to take part in an annual review of initial training as required under §264.16(a).

65. At the time of the FY97 inspection, a review of facility training records revealed that the following individuals had not received the annual refresher training required for facility personnel at TA-50: Paul Abercrombie, Rick Alexander, Julie Meadows and Robert Gonzales.

TA-53

66. TA-53 generates hazardous waste.

67. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

68. At the time of the FY97 inspection, NMED found three 500ml containers with unknown contents, labeled pending analysis and dated 9-11-96 at TA-53, Bldg. 1, Room D-126 with containers labeled hazardous waste.

69. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the container contained no hazardous waste.

TA- 54 - Permitted Hazardous Waste Storage Area

70. TA-54 is a permitted hazardous waste storage area at LANL.

71. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

72. At the time of the FY97 inspection, a container of Cyanuric Fluoride, was not adequately determined to be a hazardous waste and was inaccurately labeled as “non-regulated” at TA-54, Area L, Bldg. 69, LP6.

73. 20 NMAC 4.1.300 (incorporating 40 CFR 262.34.(c)(1)(ii)) requires containers holding hazardous waste to be marked with the words “hazardous waste” or other words that identify the contents of the container.

74. At the time of the FY97 inspection, a container of Cyanuric Fluoride, was characterized improperly and inaccurately labeled as “non-regulated” at TA-54, Area L, Bldg. 69, LP6.

75. In a written memorandum dated July 10, 1997, the Material Safety Data Sheet (MSDS) stated that the material is a “hazardous waste for it’s characteristic of reactivity.” A LANL employee also informed NMED that the container was “misabeled” and “should have been labeled D003 for cyanide.”

76. Respondents' hazardous waste storage permit for TA-54 prohibits the storage of waste which is restricted from land disposal unless such container is clearly marked to identify its contents and the date each period of accumulation begins in Permit Module III.B.3.b, which incorporates the requirements of 40 CFR § 268.50 (a)(2)(i).

77. At the time of the FY97 inspection, a review of the facility inspection logs indicate that numerous mixed waste containers within the permitted storage area had faded, illegible, and incomplete labels at TA-54, Area L.

78. At the time of the FY97 inspection, mixed waste storage shafts #36 and #37 were not marked or labeled in a manner which clearly identifies the contents of containers in the storage shafts as mixed waste at TA-54, Area L.

79. 20 NMAC 4.1.800 (incorporating 40 CFR § 268.7(a)(1)(ii)) requires the generator to notify the treatment or storage facility in writing that the waste being shipped does not meet the applicable treatment standards set forth in subpart D and therefore must include the following information on the notification; the waste constituents that the treater must monitor and whether the waste is a nonwastewater or wastewater treatability group.

80. At the time of the FY97 inspection, a review of facility manifest numbers 95940157, 95940159, 95940158, 95940145 and 95940141 and their associated Land Disposal Restriction (LDR) notices revealed that the appropriate waste constituents were not marked on the LDR notices at TA-54.

81. At the time of the FY97 inspection, a review of facility manifest numbers 97013 and 97016 and their associated LDR revealed that the proper treatability group was not marked on the LDR notices at TA-54.

TA-55

82. TA-55 generates hazardous waste.

83. Respondents' hazardous waste storage permit requires that facility personnel obtain annual refresher training, incorporating 20 NMAC 4.1.500 (40 CFR § 264.16(c)).

84. At the time of the FY97 inspection, a review of facility training records revealed that the following four individuals had not received the annual refresher training required for facility personnel at TA-55: Basil J. Lewis, Chester A. Smith Jr., Susan Ramsey and Willard E. Williams.

85. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

86. At the time of the FY97 inspection, a 5 gallon container of "Viro-Duc" Component B was incorrectly determined to be non-regulated and was found labeled as non-regulated at the interim storage area at TA-55, Bldg. 0, outside of Bldg. 4.

87. The 5 gallon container of "Viro-Duc" is an ignitable hazardous waste which has a flash point of 137° F and was identified in the MSDS sheet.

TA- 60

88. TA-60 generates hazardous waste.

89. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

90. At the time of the FY97 inspection, a 55 gallon container of yellow paint waste was found open and not stored correctly for possible hazardous waste at TA-60, Bldg. 131, outside storage building.

91. Based on the history of noncompliance noted in Paragraphs 8 through 10 above, and the violations noted in Paragraphs 12 through 90 above, Respondents are high priority violators of 20 NMAC. 4.1

CONCLUSIONS OF LAW

1. Respondents are each a "person" as defined at §74-4-3.K. of HWA and §101 of the New Mexico Hazardous Waste Management Regulations at 20 NMAC 4.1.101 through .1109, which incorporates, with a few exceptions, federal regulation at 40 CFR Parts 260 through 270.

2. Respondents manage "hazardous waste" as defined at §74-4-3.I. of HWA, and 20 NMAC 4.1.101, which incorporates, with few exceptions, federal regulation 40 CFR §260.10.

3. Respondent DOE is an "owner" and a "co-operator" of an "existing hazardous waste management facility" as defined at 20 NMAC 4.1.101 which incorporates with a few exceptions, federal regulation 40 CFR §260.10.

4. Respondent UC is an "operator" of an "existing hazardous waste management facility" as defined at 20 NMAC 4.1.101, which incorporates with a few exceptions, federal regulation 40 CFR §260.10.

5. Respondents engage in the "treatment", "storage" and "disposal" of hazardous waste as defined at §74-4-3.N. and Q., respectively, of the HWA, and 20 NMAC 4.1.100, which incorporates, with a few exceptions, federal regulation 40 CFR § 260.10.

COUNTS 1 THROUGH 6: ACCUMULATION OF HAZARDOUS WASTE NOT UNDER CONTROL OF GENERATOR [TA-3, TA-21, TA-41, TA-46, TA-53]

6. Paragraphs 1 through 16 (TA-3), 27 through 31 (TA-21), 42 through 44 (TA-41), 61 through 62 (TA-46), and 64 through 67 (TA-53) are hereby incorporated by reference.

7. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding a 2 liter container of hazardous waste by storage in lieu of disposal, which was not under the control of the generator, at TA-3, Ion Beam Facility, Basement Laboratory.

8. Respondents violated of 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) by discarding two 1 gallon containers of characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-21, Bldg. 59.

9. Respondents violated of 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding a 55 gallon container of reactive hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-21, JCI-ESA/TSC, basement.

10. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) by discarding four 5 gallon containers of characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-41, Bldg. 30, Room 264.

11. Respondents have violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding at least 5 containers of listed and characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-46, Bldg. 41, Room 105.

12. Respondents have violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34 (c) (1)) by discarding three 500 ml containers of possible mixed waste which was not under the

control of the operator at TA-53, Bldg. 1, Room D-126.

COUNT 7: FAILURE TO MARK ACCUMULATION DATE [TA-3]

13. Paragraphs 1 through 18 are hereby incorporated by reference.

14. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34 (a)(2)) by failing to place the accumulation start date on four containers of hazardous waste in the less than ninety day storage area located at TA-3, Ion Beam Facility.

COUNT 8: NO OPERABLE DECONTAMINATION EQUIPMENT [TA-18]

15. Paragraphs 1 through 11 and 19 through 21 are hereby incorporated by reference.

16. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §§ 262.34 (a)(4)) by failing to have operable decontamination equipment or water of sufficient pressure and volume available at the less than ninety day storage area at TA-18.

COUNT 9: INADEQUATE HAZARDOUS WASTE DETERMINATION [TA-21]

17. Paragraphs 1 through 11 and 22 through 26 are hereby incorporated by reference.

18. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) by failing to perform an adequate hazardous waste determination on the unknown contents of a discarded 2 gallon container at TA-21, Bldg.1, east side dock.

COUNTS 10 THROUGH 20: FAILURE TO PERFORM HAZARDOUS WASTE DETERMINATION [TA-21, TA-33, TA-46, TA-53, TA-54, TA-55, TA-60]

19. Paragraphs 1 through 11, 32 through 34 (TA-21), 35 through 41 (TA-33), 52 through 60 (TA-46), 64 through 67 (TA-53), 68 through 70 (TA-54), 83 through 85 (TA-55), and 87 through 88 (TA-60) are hereby incorporated by reference.

20. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous waste determination on the unknown contents of an abandoned 5

gallon container at TA-21, Shed 402.

21. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous waste determination on waste lead solder at TA-33, Bldg.39.

22. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on discarded photo processing chemicals in TA-33, Bldg. 114, Room 125.

23. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on 21 various containers discarded since 1991 in TA-46, Bldg. 31, Room 103.

24. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a container of Dippit 646 discarded at TA-46, Bldg. 208, under the tube canopy.

25. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a discarded 55 gallon container with unknown contents at TA-46, Bldg. 31, south side.

26. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on two 1 liter abandoned containers with unknown contents at TA-46, Bldg. 30, Room 106.

27. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on three 500 ml containers with unknown contents, at TA-53, Bldg. 1, Room D-126.

28. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform an adequate hazardous determination on a container of Cyanuric Fluoride at

TA-54, Area L, Bldg. 69, LP6.

29. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a 5 gallon container of "Viro-Duc" Component B at TA-55, Bldg. 0, outside of Bldg. 4.

30. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a 55 gallon container of yellow paint waste at TA-60, Bldg. 131, outside storage building.

COUNT 21: OPEN CONTAINER [TA-46]

31. Paragraphs 1 through 11 and 45 through 48 are hereby incorporated by reference.

32. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR 262.34(c)(1)(i)) by failing to keep a hazardous waste container closed in the satellite accumulation area at TA-46, Bldg. 24, Room B-6.

COUNT 22: WASTES STORED IN EXCESS OF 90 DAY STORAGE LIMIT [TA-46]

33. Paragraphs 1 through 11 and 49 through 51 are hereby incorporated by reference.

34. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(b)) by exceeding the ninety day storage time limit on at least 21 containers of discarded hazardous waste without a permit at TA-46, Bldg. 31, Room 103.

COUNT 23: LACK OF ANNUAL REFRESHER TRAINING FOR PERSONNEL [TA-50]

35. Paragraphs 1 through 11 and 61 through 63 are hereby incorporated by reference.

36. Respondents violated 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) or, alternatively, 20 NMAC 4.1.600 (incorporating 40 CFR 265.16 (d)(4)) by failing to ensure annual refresher training is taken by personnel at TA-50 as required in the Hazardous Waste Storage Permit Module II.F.

COUNT 24: IMPROPER LABELING [TA-54]

37. Paragraphs 1 through 11 and 71 through 73 are hereby incorporated by reference.

38. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34 (c)(1)(ii)) by failing to properly label a container of reactive hazardous waste at TA-54, Area L, Bldg. 69, Row 4, LP6.

COUNT 25: IMPROPER LABELING/LAND DISPOSAL RESTRICTION WASTE

[TA-54]

39. Paragraphs 1 through 11 and 74 through 76 are hereby incorporated by reference.

40. Respondents violated the Hazardous Waste Storage Permit Module III.B.3.b and 20 NMAC 4.1.800 (incorporating 40 CFR §268.50(a)(2)(i)) by failing to maintain adequate labels on numerous containers of mixed waste within the permitted storage area of TA-54, Area L.

41. Respondents violated the Hazardous Waste Storage Permit Module III.B.3.b and 20 NMAC 4.1.800 (incorporating 40 CFR 268.50 CFR §268.50 (a)(2)(i)) by failing to mark or label the contents and the accumulation start date on the storage shafts #36 and #37 at TA-54, Area L.

COUNT 26 AND 27: VIOLATIONS OF LDR NOTICES [TA-54]

42. Paragraphs 1 through 11 and 77 through 79 are hereby incorporated by reference.

43. Respondents violated 20 NMAC 4.1.800 (incorporating 40 CFR §268.7(a)(1)(ii)) by failing to mark the proper waste constituents on LDR notices for five manifests at TA-54.

44. Respondents violated 20 NMAC 4.1.800 (incorporating 40 CFR § 268.7(a)(1)(ii)) by failing to mark the proper treatability group on LDR notices for manifest Numbers 97013 and 97016, dated 2/27/97, at TA-54.

COUNT 28: LACK OF ANNUAL REFRESHER TRAINING FOR PERSONNEL

[TA-55]

45. Paragraphs 1 through 11 and 80 through 82 are hereby incorporated by reference.

46. Respondents violated 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) or, alternatively, 20 NMAC 4.1.600 (incorporating 40 CFR 265.16 (d)(4)) failing to ensure that annual refresher training is taken by personnel at TA-55 as required in the Hazardous Waste Storage Permit Module II.F.

CIVIL PENALTY

1. Section 74-4-10 of the HWA authorizes the assessment of a civil penalty of up to ten thousand dollars (\$10,000) per day for each violation of the HWA or the regulations promulgated thereunder. Complainant hereby assesses a civil penalty of One Million One Hundred Sixty Eight Thousand Seven Hundred Sixty Six Dollars (\$1,168,766), against Respondents. The penalty is based on the seriousness of the violations and the lack of good faith efforts on the part of Respondents to comply with the applicable requirements, and any economic benefit resulting from noncompliance accruing to Respondents and such other matters as justice may require. The penalty amount is calculated pursuant to the NMED's Civil Penalty Policy.

The penalty for each violation is:

	<u>VIOLATION</u>	<u>AMOUNT</u>
¶ 7	Hazardous waste not under control of generator	\$15,525
¶ 8	Hazardous waste not under control of generator	\$ 9,300

¶ 9	Hazardous waste not under control of generator	\$145,000
¶ 10	Hazardous waste not under control of generator	\$27,675
¶ 11	Hazardous waste not under control of generator	\$27,675
¶ 12	Hazardous waste not under control of generator	\$30,983
¶ 14	No accumulation start date on containers	\$15,525
¶ 16	No operable eyewash	\$4,500
¶ 18	Inadequate hazardous waste determination made	\$2,400
¶ 20	Failure to perform a hazardous waste determination	\$2,400
¶ 21	Failure to perform a hazardous waste determination	\$6,000
¶ 22	Failure to perform a hazardous waste determination	\$54,600
¶ 23	Failure to perform a hazardous waste determination	\$200,700
¶ 24	Failure to perform a hazardous waste determination	\$54,600
¶ 25	Failure to perform a hazardous waste determination	\$2,400
¶ 26	Failure to perform a hazardous waste determination	\$2,400
¶ 27	Failure to perform a hazardous waste determination	\$34,425
¶ 28	Failure to perform a hazardous waste determination	\$54,600
¶ 29	Failure to perform a hazardous waste determination	\$6,000
¶ 30	Failure to perform a hazardous waste determination	\$54,600
¶ 32	Failure to keep a container closed	\$1,125
¶ 34	Illegal storage past 90 days	\$200,700
¶ 36	Lack of annual refresher training	\$54,600
¶ 38	Failure to properly label	\$54,600
¶ 40	Failure to properly label	\$27,675

¶ 41	Failure to properly label	\$21,218
¶ 43	Failure to mark the appropriate waste codes on LDRs	\$1,470
¶ 44	Failure to mark the treatability group on LDRs	\$1,470
¶ 45	Lack of annual refresher training	\$54,600

Payment shall be made to the State of New Mexico Hazardous Waste Emergency Fund by certified check, bank draft, or other guaranteed negotiable instrument, and mailed to or hand delivered to Karen Breslin, Office of General Counsel, New Mexico Environment Department, P.O. Box 26110, Santa Fe, New Mexico 87502.

SCHEDULE OF COMPLIANCE

2. Based on the foregoing Findings and Conclusions, Respondents are ordered to comply with the following Schedule of Compliance:

- A. Within 30 calendar days from receipt of this Order, Respondents shall perform adequate hazardous waste determinations for all wastes identified in paragraph 12. Respondents shall provide documentation of analyses or proper determination and disposition.
- B. Within 30 calendar days from receipt of this Order, Respondents shall provide documentation of measures taken to gain appropriate control over the hazardous waste stored for an indefinite period of time after a project ends or funding disappears, and in particular the wastes identified in paragraphs 11, 22, 23, 26, 28, and 34.
- C. Within 30 calendar days from receipt of this Order, Respondents shall provide documentation that required annual refresher training has been

provided for facility personnel identified in paragraph 36 and 46 and provide a plan to prevent this violation from happening in the future.

- D. Within 30 calendar days from receipt of this Order, provide a copy of the plan put into effect to correct the eye wash violation in paragraph 16.
- E. Within 10 calendar days from receipt of this Order, ensure that containers described in paragraph 40 are properly labeled and properly label the mixed waste storage shafts with appropriate signs to identify contents of the shafts identified in paragraph 41, and provide documentation of same within 30 calendar days.
- F. Within 30 calendar days from receipt of this Order, provide documentation of proper storage or disposal of all discarded or abandoned materials/wastes identified in paragraphs 23, 24, 25, and 28.
- G. Within 30 calendar days from receipt of this Order, provide documentation of corrections to the deficiencies on all LDR's noted in paragraphs 43 and 44.
- H. Within 30 calendar days from receipt of this Order, provide a plan to adequately address testing and disposal of unknowns. Paragraph 18 was not tested or handled correctly following the inspection.

Compliance with the violations noted in paragraphs 7, 8, 9, 10, 14, 20, 21, 22, 27, 29, 30, 32, and 38 were appropriately addressed by the Respondent at the time of the inspection or within an appropriate timeframe. No further action is required on these violations.

NOTICE

- 3. If Respondents fail to timely comply with the Schedule of Compliance or if

Respondents elect not to comply with the schedule of Compliance and to challenge it as set forth below, the Secretary may assess additional civil penalties of not more than twenty-five thousand dollars (\$25,000) for each day of continued noncompliance pursuant to §74-4-10.C. of the HWA.

NOTICE OF OPPORTUNITY TO ANSWER AND REQUEST A HEARING

4. Respondents have a right to request a hearing pursuant to §74-4-10.H. of the HWA and 20 NMAC 1.5.200 of NMED's Adjudicatory Procedures by filing a written request for Hearing with the Hearing Clerk within thirty (30) calendar days after receipt of this Order. The Request for Hearing shall include an Answer. The Answer shall:

A. clearly and directly admit or deny each of the factual assertions contained in the Compliance Order/Determination; but where the Respondent/Complainant has no knowledge of a particular factual assertion and so states, the assertion may be denied on basis. Any allegation of the Compliance Order/Determination not specifically denied shall be deemed admitted;

B. indicate any affirmative defenses upon which the Respondent/Complainant intends to rely. Any affirmative defense not asserted in the Request for Hearing, except a defense asserting lack of subject matter jurisdiction, shall be deemed waived;

C. be signed under oath or affirmation that the information contained therein is to the best of the signers knowledge believed to be true and correct; and

D. have a copy of the compliance Order/Determination attached.

5. A hearing upon the issues raised by the Order and Answer shall be held upon the request of the Respondents. NMED's Adjudicatory Procedures shall govern all hearing and pre-hearing procedures. Respondents may contact the Hearing Clerk for a copy of these regulations.

The Hearing Clerk's name and address is:

Tamella Lakes, Hearing Clerk

P.O. Box 26110

1190 St. Francis Drive

Harold Runnels Building, N4084

Santa Fe, New Mexico 87502

(505) 827-2842

FINALITY OF ORDER

6. This Order shall become final unless Respondents file a written Request for Hearing and Answer within thirty (30) calendar days of receipt of the Order. Failure by the Respondents to file an Answer constitutes an admission of all facts alleged in the Order and a waiver of Respondent's right to a hearing under §74-4-10 of the HWA.

SETTLEMENT CONFERENCE

7. Whether or not Respondents file an Answer and Request for Hearing, Respondents may confer with Complainant concerning settlement. A request for a settlement conference does not extend the thirty (30) day period during which the Answer and Request for Hearing must be submitted. The settlement conference may be pursued as an alternative to, or simultaneously with, the hearing proceedings. Respondents may appear at the settlement conference or by represented by counsel.

8. Any settlement reached by the parties shall be approved by a stipulated final Order of the Secretary of NMED pursuant to the conditions set forth in 20 NMAC 1.5.601. The issuance of such an Order shall serve to resolve all issues raised in the Order, shall be final and binding on all parties to the Order, and shall not be appealable.

9. To explore the possibility of settlement in this matter, contact Ms. Debby Brinkerhoff of the Environment Department, P.O. Box 26110, 1220 St. Francis Drive, Santa Fe, NM 87501, telephone number (505) 827-1508.

TERMINATION

10. Compliance with the requirements of this Order does not relieve Respondents of their obligation to comply with all applicable laws and regulations. This Order shall terminate when Respondents certify that all requirements of the Order have been completed and NMED has approved such certification, or when the Secretary approves a stipulated final order.

By: _____ Date: _____

Gregory J. Lewis, Director

Water and Waste Management Division

CERTIFICATE OF SERVICE

I hereby certify that the foregoing Administrative Compliance Order was mailed postage prepaid as follows on this _____ day of December, 1999 to the following:

Via Certified Mail, Return Receipt Requested:

Mr. David A. Gurule, Area Manager
U.S. Department of Energy
Los Alamos Area Office
528 35th Street, MS A316
Los Alamos, NM 87544

Dr. John C. Browne, Director
Los Alamos National Laboratory
P.O. Box 1663, MS A100
Los Alamos, NM 87545

Attorney NMED/OGC

Respondents are required to comply with all terms and conditions of its HWA permit. NMSA 1978, Section 74-4-10 of the HWA and 20 NMAC 4.1.900 (incorporating 40 CFR 270.4).

**STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT**

**IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA
LOS ALAMOS, NEW MEXICO
NM0890010515**

**COMPLIANCE ORDER
HRM -99-03(CO)
(1997 Inspection)**

RESPONDENTS.

ADMINISTRATIVE COMPLIANCE ORDER

The Secretary of Environment, acting through the Director of the Water and Waste Management Division of the New Mexico Environment Department (NMED), issues this Administrative Compliance Order (Order) to the United States Department of Energy (DOE) and the Regents of the University of California (UC)(collectively referred to as Respondents), pursuant to the New Mexico Hazardous Waste Act (HWA), NMSA 1978 § 74-4-10 (Repl.Pamp. 1993).

FINDINGS OF FACT

1. NMED is the agency within the executive branch of the government of the State of New Mexico charged with the administration and enforcement of the HWA and New Mexico Hazardous Waste Management Regulations (HWMR), 20 NMAC 4.1.101 through .1109.
2. Respondents are DOE and UC, who notified the Environmental Protection Agency (EPA), of their hazardous waste generation activities on November 19, 1980.
3. DOE is an agency of the federal government and the owner and co-operator of Los Alamos National Laboratory (LANL).

4. UC is a public educational institution of the State of California and the management and operating contractor for LANL pursuant to a contract with DOE, and is a co-operator of LANL.

5. LANL is principally located in Los Alamos County, New Mexico, approximately sixty miles northeast of Albuquerque and twenty-five miles northwest of Santa Fe. The LANL site encompasses approximately forty-three square miles.

6. LANL was chosen as the site for the wartime development of the atomic bomb. The facility was established as a military reservation, and operations began in 1943. Since 1943, the primary mission of LANL has been nuclear weapons research and development. In addition, the facility does work in magnetic and internal fusion, nuclear fission, nuclear safeguards and security, laser isotope separation, and medical isotope development.

7. In association with the activities identified above, LANL generates, treats and stores hazardous wastes and mixed hazardous and radioactive wastes. LANL has also applied for and received a HWA permit from NMED for the storage and management of hazardous wastes and mixed hazardous and radioactive wastes.

8. Over the past seven years, NMED has issued numerous compliance orders seeking compliance and civil penalties. In 1992 through 1994, NMED inspected LANL, discovered violations of HWMR-7, and issued Respondents compliance orders (93-01, 93-02, 93-03, 93-04, 94-09, 94-12), which sought compliance and assessed civil penalties. In 1995, NMED inspected LANL, discovered violations of HRMW, 20 NMAC 4.1, and issued LANL and DOE compliance orders (95-03, 95-08), which sought compliance and assessed civil penalties. In 1996, NMED inspected LANL, discovered violations of the HRMW, 20 NMAC 4.1, and issued a letter of violation.

9. The violations cited in the enforcement actions described above in paragraph 8, included, but were not limited to the following: failure to perform hazardous waste determinations (94-09), failure to keep a hazardous waste container closed (93-04, 94-09), failure to label hazardous waste containers (93-04, 94-09), failure to provide decontamination equipment at a less than ninety day storage area (93-04, 94-09), exceeding storage time limits for hazardous waste (93-04, 94-09), manifesting violations (93-04, 94-09), LDR violations (1993 EPA multi-media), training violations (93-04, 94-09) and accumulation of waste not under control of the generator (94-09).

10. As a result of the compliance orders described above in paragraph 9, Respondents entered into an administrative order on consent (1992 - 1994) and stipulated final order (SFO) (1995) and agreed to a schedule of compliance and the payment of civil penalties.

11. Between July 8, 1997 and December 8, 1997, NMED performed a compliance evaluation inspection (FY 97 Inspection) of LANL to determine Respondents' compliance status with the HWA and HWMR, 20 NMAC 4.1. The FY 97 inspection involved all technical areas (TA) at LANL. The following violations were discovered at TA-3, TA-18, TA-21, TA-33, TA-46, TA-54, TA-55 and TA-60.

TA-3, Ion Beam Facility

12. TA-3 generates hazardous waste.

13. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status.

14. At the time of the FY97 inspection, a 2 liter container of hydrochloric acid was found discarded and not under the control of the generator at TA-3, Ion Beam Facility, Basement Laboratory.

15. In a written memorandum dated December 18, 1997, LANL stated that the 2 liter container contained hydrochloric acid, a corrosive characteristic waste (D-002).

16. Upon information and belief, the two liter container had not been under Respondents' control for at least thirty-two days.

17. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(a)(2)) requires a generator to mark the date upon which each period of accumulation begins, clearly and visibly, for inspection on each container.

18. At the time of the FY97 inspection, NMED discovered that 4 containers of hazardous waste were not marked with the date upon which each accumulation period started. The containers that were not labeled correctly were: 2 bottles of Red X TV Corona Dope, 1 container of Handy Flux and one 2 liter gas cylinder.

TA-18

19. TA-18 generates hazardous waste.

20. 20 NMAC 4.1.300 (incorporating 40 CFR §§ 264.34(a)(4)) requires Respondents to have operable decontamination equipment and water at adequate volume and pressure, unless a demonstration to the Secretary is made that no hazard is posed.

21. At the time of the FY97 inspection, there was no operable eyewash or water of adequate volume available at the less than ninety day storage area in TA-18. LANL personnel admitted to these facts in writing. Further, LANL personnel stated that there is no policy on the operation of the eyewash for the less than ninety day storage area.

TA-21

22. TA-21 generates hazardous waste.

23. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

24. At the time of the FY97 inspection, NMED found a 2 gallon container with unknown contents discarded at TA-21, Bldg. 1, east side dock.

25. LANL personnel stated that the container was filled with oily dirt and sludge and contained no hazardous waste.

26. Upon request by NMED, LANL provided documentation to support its hazardous waste determination. Upon review, the documentation inadequately demonstrated that the container contains no hazardous waste.

27. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste without a permit or interim status.

28. At the time of the FY97 inspection, NMED found two 1 gallon containers discarded and not under the control of the generator for an unknown period of time at TA-21, Bldg. 59.

29. The two 1 gallon containers contained a listed hazardous waste, 111 Trichloroethylene.

30. At the time of the FY97 inspection, a 55 gallon container, half full of Titanium crystals was found discarded and not under the control of the generator at TA-21, JCI-ESA/TSC, basement.

31. Titanium crystals are reactive and characteristic hazardous waste (D003).

32. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

33. At the time of the FY97 inspection, NMED found a 5 gallon container, 2/3 full of unknown contents, discarded at TA-21, Shed 402.

34. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the 5 gallon container contained no hazardous waste.

TA-33 - Mobile Laser Staging Area

35. TA-33 generates hazardous waste.

36. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

37. At the time of the FY97 inspection, NMED found "waste lead solder" discarded for an unknown period of time at TA-33, Bldg. 39.

38. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the "waste lead solder" contains no hazardous waste.

39. Upon information and belief, the "waste lead solder" contained lead and is a characteristic hazardous waste. Further, LANL stated in a written memorandum, that after the NMED inspector noted the violation, it corrected the violation.

40. At the time of the FY97 inspection, at least 16 containers of photo processing chemicals were discarded for at least ten months at TA-33, Bldg. 114, Room 125.

41. Respondents' hazardous waste determination regarding these containers was inadequate and did not demonstrate to NMED that the photo processing chemicals contained no hazardous waste.

TA-41

42. TA-41 generates hazardous waste.

43. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste without a permit or interim status.

44. Based on information and belief, at the time of the FY97 inspection, four 5 gallon carboys containing naphtha and mineral spirits were found abandoned at TA-41, Bldg. 30, Room 264.

TA-46

45. TA-46 has a hazardous waste satellite storage area.

46. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34.(c)(1)(i)) which incorporates 40 CFR § 265.173(a) requires containers holding hazardous waste to be closed during storage, except when necessary to add or remove waste.

47. At the time of the FY97 inspection, NMED found a 5 gallon container of hazardous waste open at TA-46, Bldg. 24, Room B-6.

48. The 5 gallon container was marked with words stating that it contained 3% HCL with a trace of mercury.

49. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(b)) provides that a generator who accumulates hazardous waste for more than ninety days is an operator of a storage facility and is subject to the requirements of 40 CFR Part 264 and 40 CFR Part 265 and permit requirements under 40 CFR Part 270.

50. At the time of the FY97 inspection, NMED found at least 21 containers of hazardous materials discarded and stored without a permit at TA-46, Bldg. 31, Room 103. The following containers were as follows: one 2 gallon of acetic acid (D002), one ¾ gallon hydrochloric acid (D002), one 500 ml of hydroflouric acid (D002), one ¼ gallon nitric acid (D002), one ½ gallon sulfuric acid (D002), one 1/3 gallon nitric acid (D002), four 500 ml bottles of outdated Eastman Kodak White Reflectance Coating (D001 containing Barium Sulfate and ethanol with a flash point of 72° F), one 500 ml bottle of Kodak White Reflectance Paint, one 200 ml bottle of trifluoroacetic acid (D002), one tube of Iodo acetylene or CH3I (D003), 1 jar of distilled mercury (D009), one 200 ml bottle of acetone (F003), one 1 gallon liquid Versatec (xerox toner premix Type M) (D001 with a flash point of 102° F), one 1/3 full can of Methly Alcohol (D001), one 1 gallon container Ancamine T-1, 1 gas cylinder of borazine (B3N3H6), 1 small tube of HBNH3 (D003), and 1 container of H3B.N(CH3)3.

51. At the time of the FY97 inspection, Respondents had abandoned these 21 containers since possibly 1991 and the storage area did not meet the requirements of a less than ninety day storage area and was not permitted to store hazardous waste for long term.

52. 20 NMAC 4.1.300 (incorporating 40 CFR 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR 262.11 (a)(b) and (c).

53. At the time of the FY97 inspection, Respondents had failed to make a hazardous waste determination on 21 containers, as described in paragraph 50, discarded since possibly 1991.

54. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the 21 containers contained no hazardous waste.

55. At the time of the FY 97 inspection, Respondents failed to determine if a container of Dippit 646 was hazardous waste when discarded at TA-46, Bldg. 208, under the tube canopy.

56. Respondents failed to determine if Dippit 646 was a hazardous waste when it was abandoned. Respondents have since stated that Dippit 646 is a hazardous waste and it is indicated as such in the MSDS.

57. At the time of the FY97 inspection, NMED found a 55 gallon container with unknown contents abandoned at TA-46, Bldg. 31, south side.

58. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the abandoned 55 gallon container contained no hazardous waste.

59. At the time of the FY97 inspection, NMED found two 1 liter abandoned containers with unknown contents at TA-46, Bldg. 30, Room 106.

60. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the two 1 liter containers contained no hazardous waste.

61. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) sets forth the requirements for generators to accumulate as much as 55 gallons of hazardous waste or 1 quart of acutely listed hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status.

62. At the time of the FY97 inspection, at least 5 containers with regulated hazardous wastes, methyl ethyl ketone (D035, F005) and toluene (F006), were found abandoned and not under the control of the operator in the laboratory hood at TA-46, Bldg. 41, Room 105.

TA- 50

63. TA- 50 generates hazardous waste.

64. Respondents' Permit Module II F. and 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) requires RCRA facility personnel to take part in an annual review of initial training as required under §264.16(a).

65. At the time of the FY97 inspection, a review of facility training records revealed that the following individuals had not received the annual refresher training required for facility personnel at TA-50: Paul Abercrombie, Rick Alexander, Julie Meadows and Robert Gonzales.

TA-53

66. TA-53 generates hazardous waste.

67. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

68. At the time of the FY97 inspection, NMED found three 500ml containers with unknown contents, labeled pending analysis and dated 9-11-96 at TA-53, Bldg. 1, Room D-126 with containers labeled hazardous waste.

69. At the time of the FY97 inspection, Respondents provided NMED no documentation demonstrating that the container contained no hazardous waste.

TA- 54 - Permitted Hazardous Waste Storage Area

70. TA-54 is a permitted hazardous waste storage area at LANL.

71. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

72. At the time of the FY97 inspection, a container of Cyanuric Fluoride, was not adequately determined to be a hazardous waste and was inaccurately labeled as “non-regulated” at TA-54, Area L, Bldg. 69, LP6.

73. 20 NMAC 4.1.300 (incorporating 40 CFR 262.34.(c)(1)(ii)) requires containers holding hazardous waste to be marked with the words “hazardous waste” or other words that identify the contents of the container.

74. At the time of the FY97 inspection, a container of Cyanuric Fluoride, was characterized improperly and inaccurately labeled as “non-regulated” at TA-54, Area L, Bldg. 69, LP6.

75. In a written memorandum dated July 10, 1997, the Material Safety Data Sheet (MSDS) stated that the material is a “hazardous waste for it’s characteristic of reactivity.” A LANL employee also informed NMED that the container was “mislabeled” and “should have been labeled D003 for cyanide.”

76. Respondents' hazardous waste storage permit for TA-54 prohibits the storage of waste which is restricted from land disposal unless such container is clearly marked to identify its contents and the date each period of accumulation begins in Permit Module III.B.3.b, which incorporates the requirements of 40 CFR § 268.50 (a)(2)(i).

77. At the time of the FY97 inspection, a review of the facility inspection logs indicate that numerous mixed waste containers within the permitted storage area had faded, illegible, and incomplete labels at TA-54, Area L.

78. At the time of the FY97 inspection, mixed waste storage shafts #36 and #37 were not marked or labeled in a manner which clearly identifies the contents of containers in the storage shafts as mixed waste at TA-54, Area L.

79. 20 NMAC 4.1.800 (incorporating 40 CFR § 268.7(a)(1)(ii)) requires the generator to notify the treatment or storage facility in writing that the waste being shipped does not meet the applicable treatment standards set forth in subpart D and therefore must include the following information on the notification; the waste constituents that the treater must monitor and whether the waste is a nonwastewater or wastewater treatability group.

80. At the time of the FY97 inspection, a review of facility manifest numbers 95940157, 95940159, 95940158, 95940145 and 95940141 and their associated Land Disposal Restriction (LDR) notices revealed that the appropriate waste constituents were not marked on the LDR notices at TA-54.

81. At the time of the FY97 inspection, a review of facility manifest numbers 97013 and 97016 and their associated LDR revealed that the proper treatability group was not marked on the LDR notices at TA-54.

TA-55

82. TA-55 generates hazardous waste.

83. Respondents' hazardous waste storage permit requires that facility personnel obtain annual refresher training , incorporating 20 NMAC 4.1.500 (40 CFR § 264.16(c)).

84. At the time of the FY97 inspection, a review of facility training records revealed that the following four individuals had not received the annual refresher training required for facility personnel at TA-55: Basil J. Lewis, Chester A. Smith Jr., Susan Ramsey and Willard E. Williams.

85. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

86. At the time of the FY97 inspection, a 5 gallon container of "Viro-Duc" Component B was incorrectly determined to be non-regulated and was found labeled as non-regulated at the interim storage area at TA-55, Bldg. 0, outside of Bldg. 4.

87. The 5 gallon container of "Viro-Duc" is an ignitable hazardous waste which has a flash point of 137° F and was identified in the MSDS sheet.

TA- 60

88. TA-60 generates hazardous waste.

89. 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) requires any person who generates a solid waste to determine if that waste is a hazardous waste using methods specified in 20 CFR § 262.11(a)(b) and (c).

90. At the time of the FY97 inspection, a 55 gallon container of yellow paint waste was found open and not stored correctly for possible hazardous waste at TA-60, Bldg. 131, outside storage building.

91. Based on the history of noncompliance noted in Paragraphs 8 through 10 above, and the violations noted in Paragraphs 12 through 90 above, Respondents are high priority violators of 20 NMAC. 4.1

CONCLUSIONS OF LAW

1. Respondents are each a "person" as defined at §74-4-3.K. of HWA and §101 of the New Mexico Hazardous Waste Management Regulations at 20 NMAC 4.1.101 through .1109, which incorporates, with a few exceptions, federal regulation at 40 CFR Parts 260 through 270.

2. Respondents manage "hazardous waste" as defined at §74-4-3.I. of HWA, and 20 NMAC 4.1.101, which incorporates, with few exceptions, federal regulation 40 CFR §260.10.

3. Respondent DOE is an "owner" and a "co-operator" of an "existing hazardous waste management facility" as defined at 20 NMAC 4.1.101 which incorporates with a few exceptions, federal regulation 40 CFR §260.10.

4. Respondent UC is an "operator" of an "existing hazardous waste management facility" as defined at 20 NMAC 4.1.101, which incorporates with a few exceptions, federal regulation 40 CFR §260.10.

5. Respondents engage in the "treatment", "storage" and "disposal" of hazardous waste as defined at §74-4-3.N. and Q., respectively, of the HWA, and 20 NMAC 4.1.100, which incorporates, with a few exceptions, federal regulation 40 CFR § 260.10.

COUNTS 1 THROUGH 6: ACCUMULATION OF HAZARDOUS WASTE NOT UNDER CONTROL OF GENERATOR [TA-3, TA-21, TA-41, TA-46, TA-53]

6. Paragraphs 1 through 16 (TA-3), 27 through 31 (TA-21), 42 through 44 (TA-41), 61 through 62 (TA-46), and 64 through 67 (TA-53) are hereby incorporated by reference.

7. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding a 2 liter container of hazardous waste by storage in lieu of disposal, which was not under the control of the generator, at TA-3, Ion Beam Facility, Basement Laboratory.

8. Respondents violated of 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) by discarding two 1 gallon containers of characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-21, Bldg. 59.

9. Respondents violated of 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding a 55 gallon container of reactive hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-21, JCI-ESA/TSC, basement.

10. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(c)(1)) by discarding four 5 gallon containers of characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-41, Bldg. 30, Room 264.

11. Respondents have violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34(c)(1)) by discarding at least 5 containers of listed and characteristic hazardous waste by storage in lieu of disposal, which was not under the control of the generator at TA-46, Bldg. 41, Room 105.

12. Respondents have violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34 (c) (1)) by discarding three 500 ml containers of possible mixed waste which was not under the

control of the operator at TA-53, Bldg. 1, Room D-126.

COUNT 7: FAILURE TO MARK ACCUMULATION DATE [TA-3]

13. Paragraphs 1 through 18 are hereby incorporated by reference.

14. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.34 (a)(2)) by failing to place the accumulation start date on four containers of hazardous waste in the less than ninety day storage area located at TA-3, Ion Beam Facility.

COUNT 8: NO OPERABLE DECONTAMINATION EQUIPMENT [TA-18]

15. Paragraphs 1 through 11 and 19 through 21 are hereby incorporated by reference.

16. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §§ 262.34 (a)(4)) by failing to have operable decontamination equipment or water of sufficient pressure and volume available at the less than ninety day storage area at TA-18.

COUNT 9: INADEQUATE HAZARDOUS WASTE DETERMINATION [TA-21]

17. Paragraphs 1 through 11 and 22 through 26 are hereby incorporated by reference.

18. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.11) by failing to perform an adequate hazardous waste determination on the unknown contents of a discarded 2 gallon container at TA-21, Bldg.1, east side dock.

COUNTS 10 THROUGH 20: FAILURE TO PERFORM HAZARDOUS WASTE DETERMINATION [TA-21, TA-33, TA-46, TA-53, TA-54, TA-55, TA-60]

19. Paragraphs 1 through 11, 32 through 34 (TA-21), 35 through 41 (TA-33), 52 through 60 (TA-46), 64 through 67 (TA-53), 68 through 70 (TA-54), 83 through 85 (TA-55), and 87 through 88 (TA-60) are hereby incorporated by reference.

20. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous waste determination on the unknown contents of an abandoned 5

gallon container at TA-21, Shed 402.

21. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous waste determination on waste lead solder at TA-33, Bldg.39.

22. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on discarded photo processing chemicals in TA-33, Bldg. 114, Room 125.

23. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on 21 various containers discarded since 1991 in TA-46, Bldg. 31, Room 103.

24. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a container of Dippit 646 discarded at TA-46, Bldg. 208, under the tube canopy.

25. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a discarded 55 gallon container with unknown contents at TA-46, Bldg. 31, south side.

26. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on two 1 liter abandoned containers with unknown contents at TA-46, Bldg. 30, Room 106.

27. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on three 500 ml containers with unknown contents, at TA-53, Bldg. 1, Room D-126.

28. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform an adequate hazardous determination on a container of Cyanuric Fluoride at

TA-54, Area L, Bldg. 69, LP6.

29. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a 5 gallon container of "Viro-Duc" Component B at TA-55, Bldg. 0, outside of Bldg. 4.

30. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR §262.11) by failing to perform a hazardous determination on a 55 gallon container of yellow paint waste at TA-60, Bldg. 131, outside storage building.

COUNT 21: OPEN CONTAINER [TA-46]

31. Paragraphs 1 through 11 and 45 through 48 are hereby incorporated by reference.

32. Respondents violated of 20 NMAC 4.1.300 (incorporating 40 CFR 262.34(c)(1)(i)) by failing to keep a hazardous waste container closed in the satellite accumulation area at TA-46, Bldg. 24, Room B-6.

COUNT 22: WASTES STORED IN EXCESS OF 90 DAY STORAGE LIMIT [TA-46]

33. Paragraphs 1 through 11 and 49 through 51 are hereby incorporated by reference.

34. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34(b)) by exceeding the ninety day storage time limit on at least 21 containers of discarded hazardous waste without a permit at TA-46, Bldg. 31, Room 103.

COUNT 23: LACK OF ANNUAL REFRESHER TRAINING FOR PERSONNEL [TA-50]

35. Paragraphs 1 through 11 and 61 through 63 are hereby incorporated by reference.

36. Respondents violated 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) or, alternatively, 20 NMAC 4.1.600 (incorporating 40 CFR 265.16 (d)(4)) by failing to ensure annual refresher training is taken by personnel at TA-50 as required in the Hazardous Waste Storage Permit Module II.F.

COUNT 24: IMPROPER LABELING [TA-54]

37. Paragraphs 1 through 11 and 71 through 73 are hereby incorporated by reference.

38. Respondents violated 20 NMAC 4.1.300 (incorporating 40 CFR § 262.34 (c)(1)(ii)) by failing to properly label a container of reactive hazardous waste at TA-54, Area L, Bldg. 69, Row 4, LP6.

COUNT 25: IMPROPER LABELING/LAND DISPOSAL RESTRICTION WASTE

[TA-54]

39. Paragraphs 1 through 11 and 74 through 76 are hereby incorporated by reference.

40. Respondents violated the Hazardous Waste Storage Permit Module III.B.3.b and 20 NMAC 4.1.800 (incorporating 40 CFR §268.50(a)(2)(i)) by failing to maintain adequate labels on numerous containers of mixed waste within the permitted storage area of TA-54, Area L.

41. Respondents violated the Hazardous Waste Storage Permit Module III.B.3.b and 20 NMAC 4.1.800 (incorporating 40 CFR 268.50 CFR §268.50 (a)(2)(i)) by failing to mark or label the contents and the accumulation start date on the storage shafts #36 and #37 at TA-54, Area L.

COUNT 26 AND 27: VIOLATIONS OF LDR NOTICES [TA-54]

42. Paragraphs 1 through 11 and 77 through 79 are hereby incorporated by reference.

43. Respondents violated 20 NMAC 4.1.800 (incorporating 40 CFR §268.7(a)(1)(ii)) by failing to mark the proper waste constituents on LDR notices for five manifests at TA-54.

44. Respondents violated 20 NMAC 4.1.800 (incorporating 40 CFR § 268.7(a)(1)(ii)) by failing to mark the proper treatability group on LDR notices for manifest Numbers 97013 and 97016, dated 2/27/97, at TA-54.

COUNT 28: LACK OF ANNUAL REFRESHER TRAINING FOR PERSONNEL

[TA-55]

45. Paragraphs 1 through 11 and 80 through 82 are hereby incorporated by reference.

46. Respondents violated 20 NMAC 4.1.500 (incorporating 40 CFR § 264.16(c)) or, alternatively, 20 NMAC 4.1.600 (incorporating 40 CFR 265.16 (d)(4)) failing to ensure that annual refresher training is taken by personnel at TA-55 as required in the Hazardous Waste Storage Permit Module II.F.

CIVIL PENALTY

1. Section 74-4-10 of the HWA authorizes the assessment of a civil penalty of up to ten thousand dollars (\$10,000) per day for each violation of the HWA or the regulations promulgated thereunder. Complainant hereby assesses a civil penalty of One Million One Hundred Sixty Eight Thousand Seven Hundred Sixty Six Dollars (\$1,168,766), against Respondents. The penalty is based on the seriousness of the violations and the lack of good faith efforts on the part of Respondents to comply with the applicable requirements, and any economic benefit resulting from noncompliance accruing to Respondents and such other matters as justice may require. The penalty amount is calculated pursuant to the NMED's Civil Penalty Policy. The penalty for each violation is:

	<u>VIOLATION</u>	<u>AMOUNT</u>
¶ 7	Hazardous waste not under control of generator	\$15,525
¶ 8	Hazardous waste not under control of generator	\$ 9,300

¶ 9	Hazardous waste not under control of generator	\$145,000
¶ 10	Hazardous waste not under control of generator	\$27,675
¶ 11	Hazardous waste not under control of generator	\$27,675
¶ 12	Hazardous waste not under control of generator	\$30,983
¶ 14	No accumulation start date on containers	\$15,525
¶ 16	No operable eyewash	\$4,500
¶ 18	Inadequate hazardous waste determination made	\$2,400
¶ 20	Failure to perform a hazardous waste determination	\$2,400
¶ 21	Failure to perform a hazardous waste determination	\$6,000
¶ 22	Failure to perform a hazardous waste determination	\$54,600
¶ 23	Failure to perform a hazardous waste determination	\$200,700
¶ 24	Failure to perform a hazardous waste determination	\$54,600
¶ 25	Failure to perform a hazardous waste determination	\$2,400
¶ 26	Failure to perform a hazardous waste determination	\$2,400
¶ 27	Failure to perform a hazardous waste determination	\$34,425
¶ 28	Failure to perform a hazardous waste determination	\$54,600
¶ 29	Failure to perform a hazardous waste determination	\$6,000
¶ 30	Failure to perform a hazardous waste determination	\$54,600
¶ 32	Failure to keep a container closed	\$1,125
¶ 34	Illegal storage past 90 days	\$200,700
¶ 36	Lack of annual refresher training	\$54,600
¶ 38	Failure to properly label	\$54,600
¶ 40	Failure to properly label	\$27,675

¶ 41	Failure to properly label	\$21,218
¶ 43	Failure to mark the appropriate waste codes on LDRs	\$1,470
¶ 44	Failure to mark the treatability group on LDRs	\$1,470
¶ 45	Lack of annual refresher training	\$54,600

Payment shall be made to the State of New Mexico Hazardous Waste Emergency Fund by certified check, bank draft, or other guaranteed negotiable instrument, and mailed to or hand delivered to Karen Breslin, Office of General Counsel, New Mexico Environment Department, P.O. Box 26110, Santa Fe, New Mexico 87502.

SCHEDULE OF COMPLIANCE

2. Based on the foregoing Findings and Conclusions, Respondents are ordered to comply with the following Schedule of Compliance:

- A. Within 30 calendar days from receipt of this Order, Respondents shall perform adequate hazardous waste determinations for all wastes identified in paragraph 12. Respondents shall provide documentation of analyses or proper determination and disposition.
- B. Within 30 calendar days from receipt of this Order, Respondents shall provide documentation of measures taken to gain appropriate control over the hazardous waste stored for an indefinite period of time after a project ends or funding disappears, and in particular the wastes identified in paragraphs 11, 22, 23, 26, 28, and 34.
- C. Within 30 calendar days from receipt of this Order, Respondents shall provide documentation that required annual refresher training has been

provided for facility personnel identified in paragraph 36 and 46 and provide a plan to prevent this violation from happening in the future.

- D. Within 30 calendar days from receipt of this Order, provide a copy of the plan put into effect to correct the eye wash violation in paragraph 16.
- E. Within 10 calendar days from receipt of this Order, ensure that containers described in paragraph 40 are properly labeled and properly label the mixed waste storage shafts with appropriate signs to identify contents of the shafts identified in paragraph 41, and provide documentation of same within 30 calendar days.
- F. Within 30 calendar days from receipt of this Order, provide documentation of proper storage or disposal of all discarded or abandoned materials/wastes identified in paragraphs 23, 24, 25, and 28.
- G. Within 30 calendar days from receipt of this Order, provide documentation of corrections to the deficiencies on all LDR's noted in paragraphs 43 and 44.
- H. Within 30 calendar days from receipt of this Order, provide a plan to adequately address testing and disposal of unknowns. Paragraph 18 was not tested or handled correctly following the inspection.

Compliance with the violations noted in paragraphs 7, 8, 9, 10, 14, 20, 21, 22, 27, 29, 30, 32, and 38 were appropriately addressed by the Respondent at the time of the inspection or within an appropriate timeframe. No further action is required on these violations.

NOTICE

- 3. If Respondents fail to timely comply with the Schedule of Compliance or if

Respondents elect not to comply with the schedule of Compliance and to challenge it as set forth below, the Secretary may assess additional civil penalties of not more than twenty-five thousand dollars (\$25,000) for each day of continued noncompliance pursuant to §74-4-10.C. of the HWA.

NOTICE OF OPPORTUNITY TO ANSWER AND REQUEST A HEARING

4. Respondents have a right to request a hearing pursuant to §74-4-10.H. of the HWA and 20 NMAC 1.5.200 of NMED's Adjudicatory Procedures by filing a written request for Hearing with the Hearing Clerk within thirty (30) calendar days after receipt of this Order. The Request for Hearing shall include an Answer. The Answer shall:

- A. clearly and directly admit or deny each of the factual assertions contained in the Compliance Order/Determination; but where the Respondent/Complainant has no knowledge of a particular factual assertion and so states, the assertion may be denied on basis. Any allegation of the Compliance Order/Determination not specifically denied shall be deemed admitted;
- B. indicate any affirmative defenses upon which the Respondent/Complainant intends to rely. Any affirmative defense not asserted in the Request for Hearing, except a defense asserting lack of subject matter jurisdiction, shall be deemed waived;
- C. be signed under oath or affirmation that the information contained therein is to the best of the signers knowledge believed to be true and correct; and
- D. have a copy of the compliance Order/Determination attached.

5. A hearing upon the issues raised by the Order and Answer shall be held upon the request of the Respondents. NMED's Adjudicatory Procedures shall govern all hearing and pre-hearing procedures. Respondents may contact the Hearing Clerk for a copy of these regulations.

The Hearing Clerk's name and address is:

Tamella Lakes, Hearing Clerk

P.O. Box 26110

1190 St. Francis Drive

Harold Runnels Building, N4084

Santa Fe, New Mexico 87502

(505) 827-2842

FINALITY OF ORDER

6. This Order shall become final unless Respondents file a written Request for Hearing and Answer within thirty (30) calendar days of receipt of the Order. Failure by the Respondents to file an Answer constitutes an admission of all facts alleged in the Order and a waiver of Respondent's right to a hearing under §74-4-10 of the HWA.

SETTLEMENT CONFERENCE

7. Whether or not Respondents file an Answer and Request for Hearing, Respondents may confer with Complainant concerning settlement. A request for a settlement conference does not extend the thirty (30) day period during which the Answer and Request for Hearing must be submitted. The settlement conference may be pursued as an alternative to, or simultaneously with, the hearing proceedings. Respondents may appear at the settlement conference or by represented by counsel.

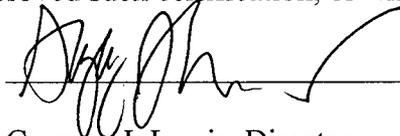
8. Any settlement reached by the parties shall be approved by a stipulated final Order of the Secretary of NMED pursuant to the conditions set forth in 20 NMAC 1.5.601. The issuance of such an Order shall serve to resolve all issues raised in the Order, shall be final and binding on all parties to the Order, and shall not be appealable.

9. To explore the possibility of settlement in this matter, contact Ms. Debby Brinkerhoff of the Environment Department, P.O. Box 26110, 1220 St. Francis Drive, Santa Fe, NM 87501, telephone number (505) 827-1508.

TERMINATION

10. Compliance with the requirements of this Order does not relieve Respondents of their obligation to comply with all applicable laws and regulations. This Order shall terminate when Respondents certify that all requirements of the Order have been completed and NMED has approved such certification, or when the Secretary approves a stipulated final order.

By:



Gregory J. Lewis, Director

Date:

December 15, 1999

Water and Waste Management Division

CERTIFICATE OF SERVICE

I hereby certify that the foregoing Administrative Compliance Order was mailed postage prepaid as follows on this _____ day of December, 1999 to the following:

Via Certified Mail, Return Receipt Requested:

Mr. David A. Gurule, Area Manager
U.S. Department of Energy
Los Alamos Area Office
528 35th Street, MS A316
Los Alamos, NM 87544

Dr. John C. Browne, Director
Los Alamos National Laboratory
P.O. Box 1663, MS A100
Los Alamos, NM 87545

Attorney NMED/OGC

Respondents are required to comply with all terms and conditions of its HWA permit. NMSA 1978, Section 74-4-10 of the HWA and 20 NMAC 4.1.900 (incorporating 40 CFR 270.4).