✓ Barbara
Ste

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

AUG 28 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

RECEIVED
AUG 28 1996

Dear Mr. Garcia:

Subject: Emergency Chemical Destruction

The purpose of this letter is to submit a written report for the emergency chemical destruction at Technical Area (TA) 21, on August 23, 1996. This report is submitted pursuant to the requirements of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit, Module II, general Facility Conditions, Paragraph II.K.2.c. Approval to perform this activity was provided by your staff via telephone on August 23, 1996 at 1:30 p.m.

During waste management operations associated with the decommissioning of TA-21, Building 5 South, a 16-ounce can with approximately two ounces of ethyl ether was discovered. The container had a corroded lid and was feared to be unstable. Upon review of the Material Data Safety Disposal Sheets, it was determined that the container was potentially a threat to human health and safety. The Hazardous Devices Team (HDT) and Hazardous Material Response Team (HAZMAT) were contacted to assist in the disposal of the chemicals.

The Air Quality Group (ESH-17) reviewed the operation prior to detonation and determined (based on the chemical involved) that there would be no adverse impact to the environment. The container was moved to a burn box placed on the service road immediately adjacent to the location where the container was discovered in TA-21. The burn box was packed with diesel-soaked packing and a blasting cap was attached to the container. The Los Alamos Fire Department was standing by during the entire operation. Safe stand-off distances for the chemical destruction personnel were calculated and observed.

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The detonation took place at 4:15 p.m. on August 23, 1996. An inspection of the burn box and surrounding area after the destruction process was completed and revealed no unusual occurrences.

If you have any questions, please call me at (505) 665-5042.

Sincerely,

H.L. "Jody" Plum
Office of Environment and Projects

LAAMEP:7HJP-043

cc:
H. Haynes, Office of Counsel, LAAO
J. White, ESH-19, LANL, MS-K490
S. Helmick, FM/CST-25, LANL, MS-J519

Gas 01

Known gases in commercial and experimental secondary containers found in vacated laboratories. Varying degrees of health hazards, flammability, and reactivity.
Some cylinders had pressure gauges under pressure.
Some commercial cylinders had the valve still attached.

Gas 03

Commercial cylinder of boron trifluoride.
Highly corrosive. Valve still attached.

Gas 04

Storage cabinet for corrosives, outside Building 5 South.
Cabinet contains noncorrosive isotopic gases.
Last inventoried in 1991. Cabinet owner is no longer with Laboratory.

Gas 05a

Osmium cylinders, ready to place in overpack (upper left)

Gas 06

Four large commercial cylinders in left foreground.
Cylinders unlabeled and untagged. Contents unknown.

Resp 04

Hazmat Team preparing overpack for small cylinders before entry into room.

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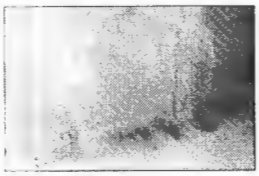

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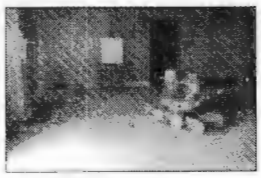

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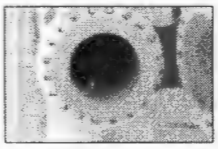

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Gas 03

Commercial cylinder of boron trifluoride.
Highly corrosive. Valve still attached.

Gas 01

Gas cylinders properly stored

Gas 06

Four large commercial cylinders in left foreground.
Cylinders unlabeled and untagged. Contents unknown.

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Cabinet contains noncorrosive isotopic gases.
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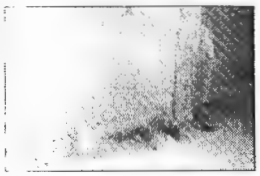

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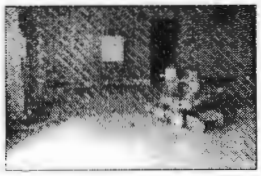

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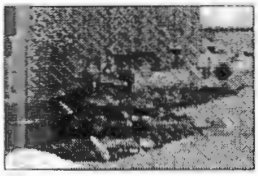

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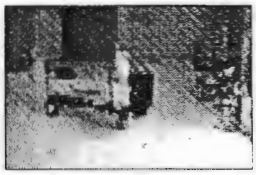

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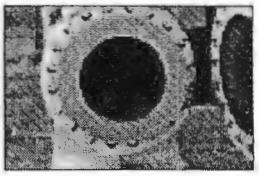

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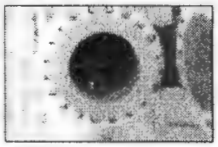

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HAZMAT Incident Document	**Tech Ref Report**	Revision number 0 Developed 11/95 Page 1 of 2

Date and time of incident 8/23/96

Chemical Information

Chemical name: See attached list

Synonyms: Itchy, resp burn, vomit, dizzy, numbness

UN number: _____

CAS number: _____

Formula: _____

Molecular weight: _____

Amount: _____

Evacuation Distances

Reference(s) _____

Shelter in place? Yes / (No)

Initial evacuation _____ ft. in all directions

Followup evacuation _____ ft. / miles wide, and _____ ft. / miles downwind

Properties

Reference(s) Matheson / Handbook of ECM

Physical state: (solid / liquid / (gas))

Flammable limits: Variable

Specific gravity: up to 4x air

Vapor density: 0 – high

Boiling point: _____

Flash point: _____

Hazards (explosive, corrosive, radioactive, oxidizer):

Incompatibilities: Water with many either reacts & or incompatible

Toxicology and Health Information

Reference(s) _____

TLV: _____ (TWA / C / STEL)

PEL: _____ (TWA / C / STEL)

IDLH: Very low <<1ppm on some

Route(s) of Exposure: inhalation and adsorption

Signs and symptoms of exposure: _____

Personal Protective Equipment

Reference(s) Emergency Resp Guide
Mathesson Gas Data Book

ENTRY/RESCUE TEAM

Level: (A / B / C / D) → initial entry in A to verify subsequent in Level B

Suit material: _____ Gloves: Silvershield

Respirator: (SCBA / APR / none) Cartridge type: N/A

Other: All entries

DECON TEAM

Level: (A / B / C / D)

Suit material: Sermex Gloves: N-Itrol

Respirator: (SCBA / APR / none) Cartridge ype: _____

Other: _____

Notes--Include long term effects and target organs, and keep track of recommendations to upgrade or downgrade level of protection.

Reference(s) (if any) _____

First aid for exposure: _____

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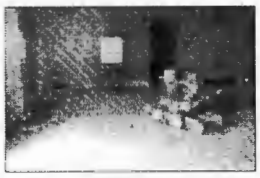

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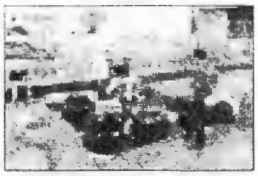

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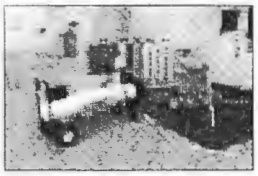

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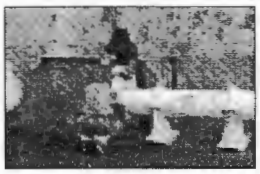

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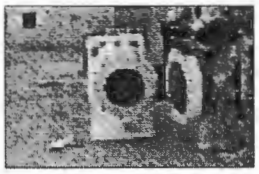

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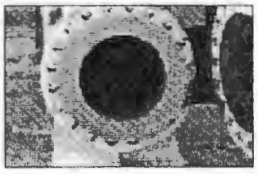

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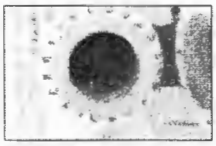

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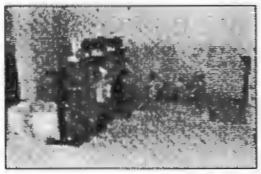

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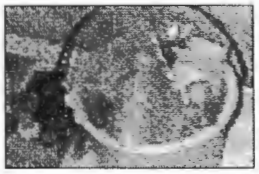

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HAZMAT INCIDENT DOCUMENT	HAZMAT SITE SAFETY PLAN	Revision Number: Page of 3

X

123
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General Information

Incident number 96037 Date and time prepared 8/21/96 1420 - 8/22 & 8/26

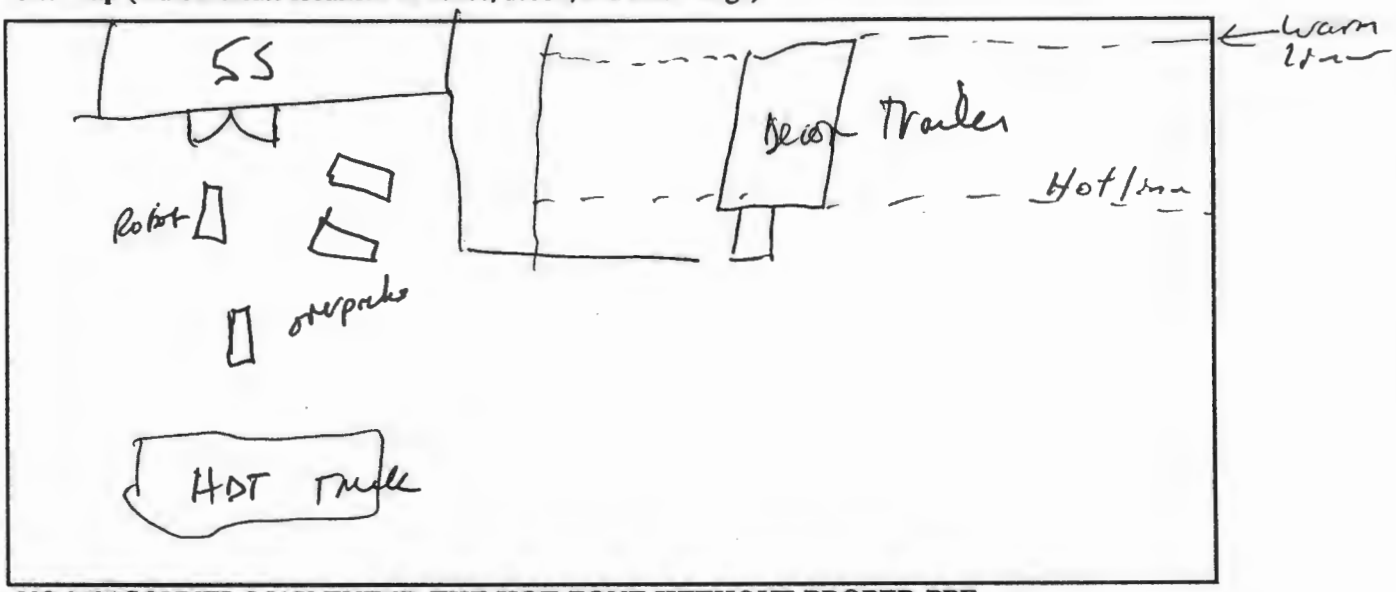
Weather conditions

Site Description

Location: TA21 - Building 5 South Hot Line

Warm Line Cold Line

Site Map (must indicate locations of zones, decon, and safe refuge):



NO PERSONNEL MAY ENTER THE HOT ZONE WITHOUT PROPER PPE.

Organization Plan

Incident Commander Gene Darling Paul Nelson Incident Safety

HAZMAT Group Sup. Dave Voltz Paul Nelson HAZMAT Safety

Tech. Reference Stanley Simmons Site Access Control

Entry Leader Dave Voltz Decon Leader

Entry 1 Darry Sparks Decon 1 Nel Correia

Entry 2 Decon 2 Patrick Giraulf

Entry #2 Entry 3 George Royer Decon 3

Entry 4 Paul Nelson Decon 4

Rescue/Backup

Material Information

Chemical name(s): Osmium compounds, HBr, Fluorinated compounds & others - ~ 250 bottles.

Hazards: Corrosives, Poisons, oxydizers, flammables.

Amount of material involved: ≈ 250 lecture size bottles

General safety precautions:

Personal Protective Equipment

Entry Team: Dave Volz / Amy Sparks (1)

Backup/Rescue:

Decon Team:

Incident Objectives

Segregate like hazards, place them into one packs check for leaks.

In suit work time: ~~30~~ 45 min

Decontamination

Decontamination station location: South of 5 South

Setup to be used:

- (q) Decon Trailer
- q Decon pools
- q Other, describe:

Decon Solution: H_2O & Soap

Communications

Radio Frequencies Assigned

HAZMAT Group _____ Tactical 1 Entry Team

THE TACTICAL CHANNEL ASSIGNED TO THE ENTRY TEAM IS FOR ITS EXCLUSIVE USE. NO ONE ELSE MAY USE IT.

Decon Team Frequency

Other communication needs Tech Ref on Tactical 1

The Entry Team Leader must maintain visual contact with the Entry Team at all times, or will maintain communications as follows:

Health and Medical

Medical Unit: _____ Location:

Entry Team and Decon Team pre-entry vitals completed by: George Rayer

Immediately following entry, post-entry vitals will be recorded and both pre- and post-entry vitals will be attached to this plan.

Hazard and medical information pertaining to the substances believed to be present will be presented before entry, at the HAZMAT post-incident debriefing, as well as at the request of those personnel involved with the incident.

Emergency Procedures

Citizens within the Hot Zone will be directed to the Safe Refuge Area, located at _____ _____ to await instructions for protective actions.

Evacuation alarm _____

Should there be a need to evacuate more than the Hot Zone, support personnel will report to _____ _____ for reevaluation of the situation.

Entry Team alternate exit point: _____

In the event of a need for rescue of entry personnel, the rescue team will be notified by _____ and briefed on entry instructions.

In the event of an equipment failure that affects the safety of personnel working in the hot zone, those personnel will leave the hot zone immediately. Reentry will not be permitted until the equipment is repaired or replaced.

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

Training

All personnel have received training to perform the assigned functions q Yes

q No

_____

_____

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

No changes may be made to this plan without the approval of the HAZMAT Safety Officer. All changes are required to be reviewed, documented, and attached to this document.

This plan must be reviewed by all HAZMAT personnel prior to entry.

HAZMAT Safety Officer	Time	Date
Incident Commander	Time	Date

Gas 03

Commercial cylinder of boron trifluoride.
Highly corrosive. Valve still attached.

Gas 04

Storage cabinet for corrosives, outside Building 5 South.
Cabinet contains noncorrosive isotopic gases.
Last inventoried in 1991. Cabinet owner is no longer with Laboratory.

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Osmium cylinders, ready to place in overpack (upper left)

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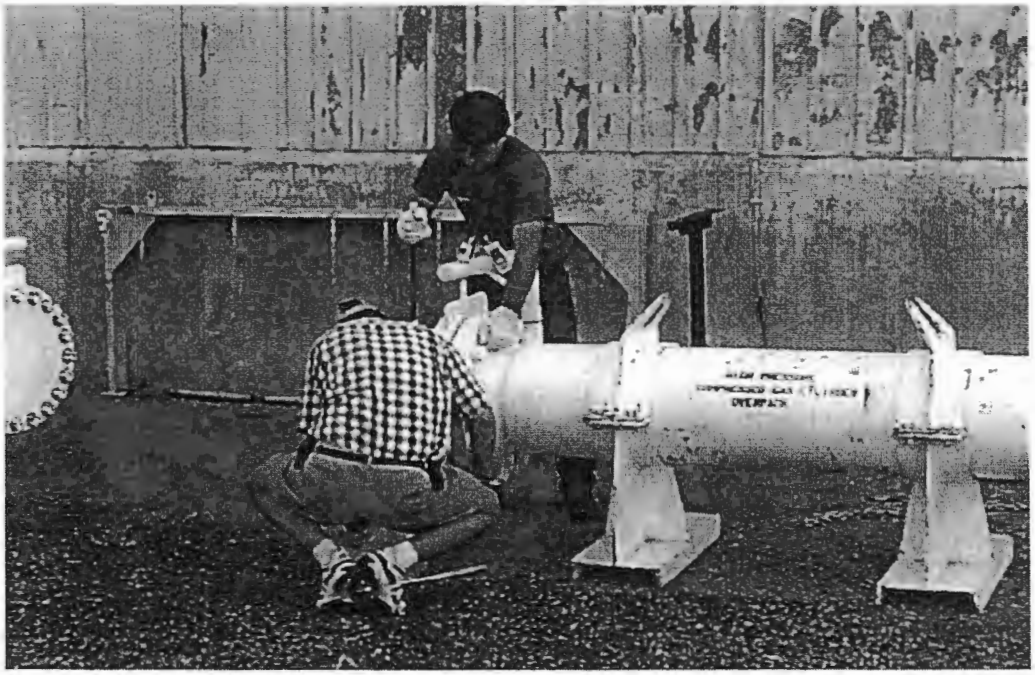

Resp 04

Hazmat Team preparing overpack for small cylinders before entry into room.

Gas 01

Gas cylinders properly stored

X

Incident #:96-037

NOTIFICATION:

Date: **August 21, 22, and 26, 1996** Time: **1420** Caller: Phone #:

Situation: **Improperly stored gas and liquefied gas unknown pressurized gas bottles.**

ASSESSMENT ONLY: NO

Location: **TA-21-5 south** Bldg. Contact: **Cy Jacobjoski** Phone #:

RESPONSE:

(On-Scene) Date: **8/21/96** Time:
IC Briefing: **Name: Gene Darling**

Time:

Situation:

Casualties:

Injured: **0** # Missing: **0** # Dead: **0**

Area threatened: (**X**) LANL site ( ) off-site
Drainage: ( ) culverts ( ) arroyos ( ) drains

Weather @ time of arrival: Wind Direction: W @ mph1-2mph

Temperature °F Weather Conditions: **nice**

CHEMICAL(s) INVOLVED

Chemical(s): **Osmium compounds, HBr, Fluorinaten compounds, and others; approximately 500 bottles (see inventory).**

Description (initial): **Gas cylinders improperly stored along walls in 5 south**

HAZARD ASSESSMENT:

(1) Material Identification - **see attached**

(2) Container Description - **lecture vials both home made and DOT**

(3) Physical Properties - **compressed gases and compressed liquified gases**

(4) Health Hazards - **poisons on many**

(5) Fire Hazards - **must samples flammable**

(6) Reactivity Hazards - **all mostly very reactive**

(7) Corrosivity - **many**

(8) Radioactivity - **none?**

(9) Additional Hazards -

RISK ASSESSMENT:

(1) Intangibles (Information that can't be looked up in any data base, i.e. terrain, run-off, etc.) - **inside well ventilated building**

(2) Size and Type of Container and Quantity Involved - **approximately 500 containers, lecture vials**

(3) Potential Behavior of Container and Its Contents - **reactive, flammable underpressure**

(4) Exposure Potential to People, Property and the Environment - **low**

(5) Incompatibles in close proximity - **many incompatible with H_2O**

CONTROL ZONES

Control Zones established ?: Yes/No; Hot Zone: **inside room**

Warm Zone: **decon to doors** Cold Zone: **gate in front of decon**

ENTRY:

HAZMAT RESPONDERS:

HAZMAT Branch Director:
Group sup: **David Volz**
Tech. Ref: **Stanley Simmonds**
Safety: **Paul Nelson**

Entry Team:
Leader: **David Volz**
(1) **Davy Sparks**
(2) **George Royer**
(3) **Paul Nelson**

Entry Team (8/27/96):
(1) **Stanley Simmonds**
(2) **Laura Briesmeister**

Decon Team:
Leader
(1) **Patrick Girault**
(2) **Mel Garcia**
(3)
(4)

Site Access:
Spotter:
Recorder: **Andrea Perez**
Runner: **Mary Sanchez, Jan Sandoval, Mary Velarde, Jason Wilke**

Weather Update: Wind Direction: @ mph; Temperature °F
Time: Weather Conditions:

Objective/Actions:

PROTECTIVE CLOTHING SELECTION LEVELS:

Entry Team (A) (B) (C) (D)
Entry Team (8/27/96) (A) (B) (C) (D)
Back-up Team (A) (B) (C) (D)
Clean-up Team (A) (B) (C)
Assessment Team (A) (B) (C) (D)

Decon Team (A) (B) (C) (D)

Specify the garments used: (For replenishment purposes)

SURVEY INSTRUMENTS AND READINGS:

GX-82, GX-86: ☐
PH PAPER: ☐
TLD-1: ☐
Microtip: ☒

TMX-410: ☐
GX-4000: ☒
Other: **AIM**

MERCURY VAPOR: ☐
ANALYZER TUBES: ☐
TRITIUM
AN/PDR-74: ☐
FEMPTO TECH 1812: ☐

Alpha -
AC-3: ☒
Ludlum mod. 139: ☐
Other: ☐

Beta -
HP-260: ☒
Other: ☐

Gamma -
RO2A: ☒
RO3C: ☐
Other: ☐

Equipment Source checked: Yes/No

Equipment calibrated: Yes/No

Entry Time: Site Exit Time: Decon Exit Time:

Entry team findings: **Mis bottles lying on floor, on first entry took known bad actors and placed into overpacks, took remaining entries to sort, tag, and record other bottles.**

Additional entries needed (use supplemental entry log)

MONITORING SECTION: N/A ☐

Start Time: Completed Time:

Sampling performed by: **entry teams**

Sampling locations: **near work and handling areas**

Type of Samples: Grab, Composite, Liquid, Solid, Gas

TERMINATION:

NOTES ON FINAL ACTIONS TAKEN:

Schedule Critique Date: Time:

Follow up Actions Identified in the Field:

Action Items & Assignments Identified in the Field (include items to be replenished):

Termination Time: **8/26/96 at 1330**

MEDICAL SECTION - Responders Only

Injuries/exposure: **none**

RESPONSE GROUPS: Name of Contact

ESH-1: ☐_____ ESH-2: ☐_____ JCI: ☐_____
PAO: ☐_____ ESH-5: ☐_____ LAFD: ☐_____
PTLA: ☐_____ ESH-7: ☐_____ LAMC: ☐_____
ESH-18: ☐_____ LAPD: ☐_____ Others: ☐_____

HOT WASH:

Time of critique: Start: Finish:

Personnel Present:

Lessons learned:

Summary: (Ensure all appropriate documents are filed with this log)

Follow up Actions (include follow-up with client):

Action Items & Assignments:

Copy of report requested (YES/NO) by:_____

HAZMAT Group supervisor signature/Date: [illegible] 9/27/96

Site map:

N

W

E

S

NOTES, RECORDS AND EVENTS DATE 8/21/96

830-900 JH Call Tree & Notifications → Pu[illegible]os are special cases
900-905 Deployment listing
905-20 Beaumont accident → Uninvited guest story
Only sent to get source no remediation

Over to HAZMAT Gas Cylenders at TA-21

Cylendars
~40 unknown
~100 inventoried
~200 not inventoried
— 4 Osmium Compounds
— HF, Cyanide, Phosgene

- Most laying down
- Commercial & Home made
  30-40 yrs old look ok no signs of leaking
  Conditions?

Rad: don't think so
P.I. knowledge exhausted
CST-5 Doesn't want Osmiums

Inventory
Safe Storage
- upright
- Out Side
- Least Populated Area

Characterization
Minimal Handling
Rad survey (Swipes)

Options
knowns

Where done Store them
How " " " "
Segregation

Blowing up:
where
permits
treatment
Can they be blown up

Transportation

OSHA 1910.101 compressed gas cylendars

Who does inventory (HAZMAT? / HDT?)
Who will Transport. (Bus? / HAZMAT?)

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NOTES, RECORDS AND EVENTS DATE 8/21/96

@GAS Characterization possibilites Vance's machine is down
CST-9 GL

Transport knowns to TA-54

Inventory
BY HAZMAT

{Known DOT's → TA-54
Know DOT's orphans — TA-54

Known not DOT → can move but how → HAZMAT
① Generator knows his stuff ok
② HAZ MAT could Transport or CST-5 could have pick up.

Un known DOT N/A

Unknown Not DOT

Solutions

I HAZ MAT
① Over pack Os & move outside
② Put unknowns in over-Pack with values & Guage and Store Out side (Rm 228 & 410)

II
③ Inventory in Level A remander of Stuff

CST-5 MAT
④ Known DOT go to TA-54 via Standard Procedures
known non DOT

HAZMAT
Mike Williamson PH 55967 Pgr 996-0755
Laurin

Weigh, Pictures, Visual inspection of valves,
Segrigate by Hazard Class,

08:30

104-1061 Sarah

© 1992 My-Tyme, Inc.

GENERATOR STORAGE OF HAZARDOUS AND MIXED WASTE

X

✓ New Location	O Radiation Controlled Area	O Clearance Required
O Update for Existing Location	O RMMA RMMA NO. _____	O ER PROJECT OU # _____

✓ Satellite	O Containers	O Photo	O HE
O < 90 day	O Tanks	O UST	O Mixed Waste

TA	BLDG	ROOM	DATE
21	5	South	8-12-96

OTHER LOCATION INFORMATION

CONTACT	GROUP	MAILSTOP	PHONE
Matt Rowbel	CST-25	J514	59054

TYPES OF HAZARDOUS OR MIXED WASTES STORED, LIST CHEMICAL AND RADIOACTIVE COMPONENTS, IDENTIFY FREE LIQUIDS AND THOSE THAT ARE ABSORBED.

gas cylinders no longer needed

PROCESS THAT GENERATES HAZARDOUS OR MIXED WASTE (BE BRIEF).

decommissioning of entire site

WASTE COORDINATOR'S SIGNATURE	GROUP	MAILSTOP	PHONE	DATE
M. Rowbel	CST-25	J514	59054	8-12-96

ESH-8 USE ONLY

Site ID # 1485 Date entered 8/20/96

RETURN TO: MICHELLE CASH, ESH-8, MS K498, PH. 665-0223

Revised July 26, 1994

22 23 26
Thurs Fri + Mon

Deuterium D or ^2H
Deut Oxide D_2O
CH_4 is Methane

3 Sorts:
1. Bar Code
2. Tag #
3. Chemical Name

~~XeF_6 Xenon Hexafluoride~~ ~~FI-72 p172 6202~~

Poison Control
Drug Inform.
1800 432 6866

~~MoF_6 Molybdenum Hexafluoride~~ ~~6319 p. 6325~~
store in Quartz ampule

~~K_3NiF_2~~ NiF_2 is Nickel difluoride 6591

~~ClF_3 Chlorine Trifluoride 2150~~

~~CF_3SSCF_3 CF_3S-SCF_3? Chlorine trifluoride~~

~~ClF_3O Chlorine oxytrifluoride?~~ Oxy chlorotrifluoride

F_3NO?

BrF_5 Mg_5N_2

KF (also FK) Potassium Fluoride p. 1314 7794

$F_{10}N_2$ Pentafluoride F_7 is max p. FI-73

22 23 26
Thurs Fri + Mon

Deuterium D or ^2H
Deut Oxide D_2O
CH_4 is Methane

3 Sorts:
1. Bar Code
2. Tag #
3. Chemical Name

~~XeF_6 Xenon Hexafluoride~~ ~~FI-72 p.172~~ ~~6200~~

Poison Control
Drug Inform.
1 800 432 6866

~~MoF_6 Molybdenum Hexafluoride~~ ~~6319 p. 6325~~
~~store in Quartz ampuls~~

~~K_3NiF_2 NiF_2 is Nickel difluoride 6591~~

~~ClF_3 Chlorine Trifluoride 2150~~

~~CF_3SSCF_3 CF_3S-SCF_3? Chlorine trifluoride~~

~~ClF_3O Chlorine oxytrifluoride?~~ Oxy chlorotrifluoride

F_3NO?

BrF_5 Mg_5N_2

KF (also FK) Potassium Fluoride p. 1314 7794

$F_{10}N_2$ Pentafluoride F7 is max p. FI-73

This form is used to request disposal of chemical and radioactive wastes. Mail completed form to Waste Services Group at MS J579

Account Information	Name (Print)	Telephone	Z Number	Date
8B25 U079	Matt Raybl	59054	096152	8.12.94

Item Id	Waste Profile Number	Process ID	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	Description
20394462	23006		11								✓	• arsenic pentafluoride
20394463											✓	• boron trifluoride
20394464											✓	• 1,3-butadiene
20394465											✓	• hydrogen iodide
20394666											✓	• cyclopropane
20394667											✓	• phosphorus trifluoride
20394668											✓	• carbonyl fluoride
20394669											✓	"
20394670											✓	• bromotrifluoromethane
20394671											✓	"
20394672											✓	• phosphorus pentafluoride
20394673											✓	• chlorine monofluoride
20394674											✓	• sulfur tetra fluoride
20394675											✓	sulfur dichloro difluoride
20394676											✓	• nitrogen dioxide
20394677											✓	• Bromine trifluoride

Container Types
01 - Bulk (unpackaged)
02 - Metal Drum
03 - Fiber or Plastic Drum
04 - Plastic Bottle or Container
05 - Glass Bottle or Container
06 - Plastic Bag
07 - Fiber or Plastic Box
08 - Wooden Box
09 - Metal Box
10 - Portable Tank
11 - Cylinder
12 - Shield Cask
13 - Other (Specify in Description)

Units for Volume
G - Gallons
L - Liters
F - Cubic Feet
M - Cubic Meters
O - Fluid Ounce
P - Pint
Q - Quart

Units for Weight
P - Pound
K - Kilograms
G - Grams
O - Ounce
T - Tons

Waste Accumulation *(Check all that apply)*
- ☐ < 90 Day Storage Area (Start Date: _____)
- ☐ Satellite Storage Area (Approximate Volume: _____)
- ☐ Rad Dumpster No: _____
- ☐ Security Area

TA: 21
Building: 5
Room:

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Matt Raybl	[signature]	096152	8.12.94

Form 154 (03/95)

...used to implement disposal of chemical and radioactive wastes. Mail completed form to Waste Services Group at MS J579

Account Information	Name (Print)	Telephone	Z Number	Date
[illegible]1079	Mark Rendel	59054	091652	8.18.96

Item Id	Waste Profile Number	Process ID	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	Description
2039504	2300		11								✓	(recture bot) bromine pentafluoride
2039505											✓	molybdenum hexafluoride
2039506											✓	disulfur decafluoride
2039507											✓	antimony pentafluoride
2039508		poison								33	✓	molybdenum hexafluoride
2039509		Poison								47	✓	sulfur tetrafluoride
2039510		poison								32	✓	germanium tetrafluoride
2039511		oxidizer								34	✓	bromine pentafluoride
2039512		corrosive								14	✓	hydrogen fluoride
2039513											✓	tungsten hexafluoride
2039514											✓	monochlorosulfur pentafluoride
2039517		Poisonous								46		Phosphorous Trifluoride
2039518		Nonflammable								31		Pentafluoroethane
2039519		Poison								53		Hydrogen Sulfide
2039520		Poison								56		Phosphorous Pentafluoride
2039521		Flammable								50		Trifluorochloroethylene

Container Types
- Bulk (unpackaged)
- Metal Drum
- Fiber or Plastic Drum
- Plastic Bottle or Container
- Glass Bottle or Container
- Plastic Bag
- Fiber or Plastic Box
- 08 - Wooden Box
- 09 - Metal Box
- 10 - Portable Tank
- 11 - Cylinder
- 12 - Shield Cask
- 13 - Other (Specify in Description)

Units for Volume
G - Gallons
L - Liters
F - Cubic Feet
M - Cubic Meters
O - Fluid Ounce
P - Pint
Q - Quart

Units for Weight
P - Pound
K - Kilograms
G - Grams
O - Ounce
T - Tons

Waste Accumulation (Check all that apply)
- ☐ < 90 Day Storage Area (Start Date: _____)
- ☒ Satellite Storage Area (Approximate Volume: 50 l)
- ☒ Rad Dumpster No: _____
- ☐ Security Area

TA: 21
Building: 3
Room: _____

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Mark Rendel	[signature]	091652	8/18/96

Form 154 : 10/3/95

This form is used to request disposal of chemical and radioactive wastes. Mail completed form to Waste Services Group at MS J579

Account Information	Name (Print)	Telephone	Z Number	Date
8P25 W079	Matt Rybl	59054	096152	8-12-96

Item Id	Waste Profile Number	Process ID	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	Description
2034488	23226		11							3	P ✓	Trifluoromethyl hypofluorite (lecture bot)
2034489											✓	silicon fluoride
2039490											✓	sulfur monochloropentafluoride (SF_5Cl)
2039491											✓	Disulfurdecafluoride
2039492		Poison							43		✓	oxalyl fluoride
2039493											✓	arsenic pentafluoride
2039494		Poison							10		✓	"
2039495											✓	bromine trifluoride
2039496											✓	phosphorus oxyfluoride
2039497											✓	tellurium hexafluoride
2039498											✓	hydrogen bromide
2039499		Corrosive							16		✓	"
2039500		Poison							4		✓	3-trifluoro propyne
2039501											✓	cis-2-butene
2039502											✓	bromine trifluoride
2039503		Poison							3		✓	thionyl fluoride

Container Types
- Bulk (unpackaged)
- Metal Drum
- Fiber or Plastic Drum
- Plastic Bottle or Container
- Glass Bottle or Container
- Plastic Bag
- Fiber or Plastic Box
- 08 - Wooden Box
- 09 - Metal Box
- 10 - Portable Tank
- 11 - Cylinder
- 12 - Shield Cask
- 13 - Other (Specify in Description)

Units for Volume
G - Gallons
L - Liters
F - Cubic Feet
M - Cubic Meters
O - Fluid Ounce
P - Pint
Q - Quart

Units for Weight
P - Pound
K - Kilograms
G - Grams
O - Ounce
T - Tons

Waste Accumulation *(Check all that apply)*
- ☐ < 90 Day Storage Area (Start Date: _____)
- ☑ Satellite Storage Area (Approximate Volume: 50 gal)
- ☐ Rad Dumpster No: _____
- ☐ Security Area

TA: 21
Building: 5
Room: South

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Matt Rybl		096152	8-12-96

Account Information	Name (Print)	Telephone	Z Number	Date
3B25 W079	Matt Rybel	59054	096152	8.12.96

Item Id	Waste Profile Number	Process ID	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	Description
2039478	23006	Poison	11						8	3	P	thionyl fluoride
2039479												bromine trifluoride
2039480												cesium fluoride
2039481												carbonyl fluoride
2039482												phosphorus trifluoride
2039483		Poison							2			sulfuryl fluoride
2039476		Poison							44			Nitrogen Dioxide
2039450		Poison							65			Trifluoroacetonitrial
2039468		Poison							61			Carbonyl Fluoride
2039475									39			Sulfur Dichlorodifluoride
2039451		Poison							64			Hexafluorocyclobutene
2039453		Flammable							57			trifluoroethylene
2039452		Flammable							58			Trifluoronitrosomethane
2039470		nonflammable compressed							41			Bromotrifluoromethane
2039471		nonflammable compressed							42			Bromotrifluoromethane
2039473		Oxidizer							40			Chlorine monofluoride

Container Types
- Bulk (unpackaged)
- Metal Drum
- Fiber or Plastic Drum
- Plastic Bottle or Container
- Glass Bottle or Container
- Plastic Bag
- Fiber or Plastic Box
- 08 - Wooden Box
- 09 - Metal Box
- 10 - Portable Tank
- 11 - Cylinder
- 12 - Shield Cask
- 13 - Other (Specify in Description)

Units for Volume
G - Gallons
L - Liters
F - Cubic Feet
M - Cubic Meters
O - Fluid Ounce
P - Pint
Q - Quart

Units for Weight
P - Pound
K - Kilograms
G - Grams
O - Ounce
T - Tons

Waste Accumulation *(Check all that apply)*
- ☐ < 90 Day Storage Area (Start Date: _____)
- ☒ Satellite Storage Area (Approximate Volume: 82 gal)
- ☐ Rad Dumpster No: _____
- ☐ Security Area

TA: 21
Building: 3
Room:

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Matt Rybel	M.R.	096152	8.12.96

ESH-19 RCRA AUDIT PROGRAM (R-CAP)	*CORRECTIVE ACTION REQUEST*
TO: ESH-19 Audit File, MS K498 FROM:	DATE: 13 July 95

1. SEE CHECKLIST FOR DEFICIENCIES. COMPLETE PART 2 AND RETURN THE FORM.

2. ROOT CAUSE: DETERMINE AND INDICATE THE ROOT CAUSE.

forgetfulness

3. CORRECTIVE ACTION: INDICATE THE CORRECTIVE ACTION TAKEN TO CORRECT THE ROOT CAUSE AND TO PREVENT RECURRENCE OF THE PROBLEM.

constituents have been listed on label

Generator's Signature Date

4. CORRECTIVE ACTION COMPLETED:	5. CORRECTIVE ACTION VERIFIED: (DATE OF FOLLOW-UP INSPECTION)
Kathryn A. Jarrett Waste Management Coordinator	Inspector's Signature

6. COMMENTS:

00000061

ESH DIVISION RCRA STORAGE AREA COMPLIANCE AUDIT CHECKLIST

TA	BLDG	ROOM	ADD. INFO.	SITE ID #	GROUP	DATE
21	150	607		1291	CST-18	6-22-95

CONTACT: Kathy Jarrett

☒ SAA ☐ <90DAY

☐ No deficiencies ☐ Inactive/Removed

☒ With deficiencies ☐ Active but not storing

	YES	NO	NA
1) Has the generator made a hazardous waste determination? (262.11 and AR 10-3). Waste types: ~~☒ D~~ ☒ F ☐ P ☐ U (note)	X		
Corrective Action: If contents are unknown then a request for analysis must be submitted to make a determination. If contents are known then a WPF must be filled out immediately and containers labeled as such.			
2) Is waste accumulated "at or near the point of generation"? (262.34 and AR 10-3)	X		
Corrective Action: SAA must be in the same room the waste is generated or immediately adjacent to it. Waste should not be moved from building to building, between floors of a building, or down a long corridor. If your SAA is not at or near the point of generation, submit the waste disposal paperwork to the waste management groups. Once the paperwork has been approved and the waste has been picked up for disposal, the storage area must be moved closer to the point of generation. ESH-19 must be informed immediately of the location change of the SSA.			
3) Is waste "under control of the generator"? (262.34 and AR 10-3)	X		
Corrective Action: The generator of the waste must have control of the SSA. The control could include a locked cabinet, a locked lab, or administrative controls in place to prevent others from putting waste in your SSA (written procedures).			
4) Are containers in good condition? (264.171, 265.171 and AR 10-3)	X		
Corrective Action: Containers holding hazardous waste must be free of deterioration, rust, or damage. They should be placed far enough apart for visual inspection in case the container has a leak or is damaged in some way. If the container is in poor condition the contents must be transferred to a good container or overpacked immediately.			
5) Is waste compatible with containers? (264.172, 265.172 and AR 10-3)	X		
Corrective Action: The container must be compatible with the waste they hold. Do not store a waste that is corrosive to or otherwise will cause deterioration of the containers. Baggies are not considered appropriate primary containers for solvent contaminated rags. The baggies should be placed in a container that will close (e.g., a jar or a drum).			

		YES	NO	NA
6)	Are all containers closed? (264.173, 265.173 and AR 10-3) *Corrective Action: All containers must remain closed at all times except when adding or removing waste to the container. The definition of closed is in the way the manufacture intended the container to be closed. Containers must be sealed to prevent release of organic vapors, fumes, etc. If you have a bung top drum then the bung must be in place and screwed down, an open head drum with a ring and bolt must have the ring in place and the bolt screwed down, and if you have a jar the lid must be in place and screwed down.*	X		
7)	Are containers marked with the words "HAZARDOUS WASTE"? (262.34 and AR 10-3) *Corrective Action: All containers holding hazardous waste must be marked with the words "HAZARDOUS WASTE". If containers are smaller than the Lab's stock label (yellow and red labels, VWR stock number LACM 2722) then use a piece of tape. If the containers are very small vials or other very small containers and tape will not work then place the containers in a box or other holding container and label it.*	X		
8)	Are constituents of waste on container or log sheet? (AR 10-3) *Corrective Action: All containers must have the constituents of the waste written on the label, listed on a log sheet, or on the WPF. The log sheet and WPF needs to be attached to the container or referenced on the container (i.e., "see above logsheet" or "see WPF # 0000").*		X	
9)	Have all hazardous waste spills or leaks been cleaned up immediately? (262.34 and AR 10-3) *Corrective Action: If there is a spill in the secondary containment unit or surrounding the container, it must be cleaned up immediately. If the spill is too large for the generator to clean up then call EM&R immediately.*	X		
A)	Has the resultant clean up materials been handled as hazardous waste? *Corrective Action: The resultant clean up material from a hazardous waste spill must be handled as hazardous waste.*			X
10)	Has the waste exceeded 55 gallons of hazardous waste or 1 quart of acutely hazardous waste? (262.34 and AR 10-3)	X	X	
A)	If waste volume has been exceeded, are containers marked with the date the excess began?			X
B)	Has the excess amount been held for more than 3 days? *Corrective Action: A SAA has a volume limit of 55 gallons of hazardous waste or 1 quart of acutely hazardous waste. If this volume is exceeded, the date the excess began must be indicated on the container label and moved to a <90 day storage area or a TSDF (TA-54) within three (3) calendar days. Contact the waste management groups or ESH-19 immediately for assistance.*			X

		YES	NO	NA
11)	Is there an accumulation start date on the container in the <90 day storage area? (262.34 and AR 10-3) *Corrective Action: All containers in a <90 day storage area must be marked with the date the accumulation begins (when the waste was first put into the container). If there is not an accumulation start date then the operator must look into when the waste first began accumulating or the waste was introduced into the <90 day storage area and that date must be put on the container label.*			X
12)	Has waste exceeded 90 day time limit? (262.34 and AR 10-3) *Corrective Action: The <90 day storage area has a time limit of 90 days or less. The waste must be transported to a TSDF (TA-54) within 90 days which includes process time for paper work and transportation time. The generator must immediately contact ESH-19 and the waste management groups regarding your situation and hand carry the waste disposal paperwork through the system.*			X
13)	Is the <90 day storage area inspected at least weekly? (264.15, 265.15, and AR 10-3) *Corrective Action: The <90 day storage area must be inspected at least weekly, unless adding or removing waste from the storage areas or treatment is being performed in the storage area. A deficiency noted at a storage area must be identified as an Action Required (AR) on the Inspection Record Form (IRF). The original inspection record must be maintained by the generator for three (3) years and a copy must be sent to ESH-19 (IRF - MS K498) on a weekly basis.*			X
14)	If deficiencies are noted are they corrected in a timely manner? (Best Management Practices) *Corrective Action: All deficiencies must be reflected on the IRF and must show up on all subsequent IRFs until the problem has been corrected. The IRF should indicate what actions are taking place to correct the deficiency.*			X
15)	If storage area is outside, is the waste in a dry sheltered area and on pallets? (AR 10-3) *Corrective Action: Outside storage areas should be in a sheltered area and container should be on pallets or up off the ground. This will protect the container from the environment and prevent rusting and other deterioration.*	X		
16)	Are incompatible waste segregated properly? (264.172 and AR 10-3) *Corrective Action: Incompatible waste should be segregated by physical barriers such as separate secondary containment units (i.e., trays, etc.).*	X		
17)	Has ESH-19 been notified of the location of the hazardous waste storage areas or any changes in the area? (AR 10-3) *Corrective Action: ESH-19 must be informed of any changes regarding a hazardous/mixed waste storage area. This includes group change, contact change, or location change. ESH-19's database is the official listing of the Laboratories hazardous and mixed waste storage areas. When an agency comes to the Laboratory for an audit they contact ESH-19 for a printout of areas. Keeping this database updated is very important for this reason.*	X		

		YES	NO	NA
18)	Is the satellite accumulation area sign prominently posted and visible? (AR 10-3) *Corrective Action: Place the SAA sign where it may be visible to individuals entering the room, on the outside of the storage cabinet, or on the door to the laboratory. This will assist emergency response personnel in the event of an emergency.*	X		
19)	Is the <90 day storage area sign and danger sign prominently posted and visible? (264.14, 265.14 and AR 10-3) *Corrective Action: Place the <90 day storage area sign and the danger sign where it may be visible to individuals entering the area, on the outside of the storage cabinet or building (if storage area is a transportainer or similar type of building). This will assist emergency response personnel in an event of the emergency.*			X
20)	Is the storage area free of obstacles and deterioration? (264.15 & 265.15 and AR 10-3) *Corrective Action: The area surrounding the storage area should be free of obstacles to allow safe access to the area by inspectors or emergency response personnel. The floor should not have large cracks or holes which could prevent emergency response personnel from accessing area or waste disposal personnel from picking up your waste.*	X		
21)	Is there spill control equipment, emergency equipment, communication equipment, and decontamination equipment at the <90 day storage area? (264.32, 265.32 and AR 10-3) *Corrective Action: The storage area must have spill control, decontamination, emergency and communication equipment at the storage area in case of an emergency. This equipment could include: an absorbent material, alarm system/buddy system/telephone/two-way radio, fire extinguishers and any other equipment you find necessary for your type of waste. The equipment specified, the maintenance and test schedule and the safety procedures used in storage operations should be documented.*			X
22)	Is there adequate aisle space between containers in the <90 day storage area? (264.35, 265.35 and AR 10-3) *Corrective Action: Space the containers approximately 2 feet apart to allow for visual inspection and access by emergency personnel.*			X
23)	Have the operators/inspectors for the <90 day storage area complete and up-to-date on the required training? (264.16, 265.16 and AR 10-3) *Corrective Action: Contact ESH-13 at 7-0059 immediately to schedule all appropriate individuals and alternates for RCRA Personnel Training or RCRA Personnel Refresher Training. It is also recommended that operators of SAA's attend this training as well.*			X
24)	Is a copy of the Contingency Plan at the <90 day storage area? (264.50, 265.50 and AR 10-3) *Corrective Action: If you do not have a copy of the Contingency Plan contact ESH-19 immediately to receive a copy of it. Once you receive a copy of the Contingency Plan, it must be posted at the storage area.*			X

A) Is there a copy of the "Attachment 1 to Contingency Plan" (emergency contact list) and the "<90 Day Storage Area Site Specific Plan" at the <90 day storage area? (264.50, 265.50 and AR 10-3)

YES	NO	NA
		X

Corrective Action: *If you do not have a copy of "Attachment 1 to Contingency Plan" or "<90 Day Storage Area Site Specific Plan" contact ESH-19 immediately to receive a copy of it. Once you have received the copy the forms must be filled out appropriately and posted at the storage area.*

INSPECTOR: James Cesario DATE: 6-22-95

COMMENT/CONCERNS OR QUESTIONS:

18) WMC will give generator a new sign

NOTE: FOR ANY QUESTIONS, CONCERNS OR COMMENTS PLEASE CONTACT MICHELLE CASH AT 5-0223 OR E-MAIL AT CASHM@ESHMAIL.LANL.GOV OR GERI RODRIGUEZ AT 7-6259 OR E-MAIL RODRIGUEZG@ESHMAIL.LANL.GOV.

CHEMICAL SCIENCE AND TECHNOLOGY (CST) DIVISION

Alexander Gancarz, Division Director
F. Ben Wampler, Deputy Division Director

- **Advanced Chemical Diagnostics & Instrumentation** (CST-1) *Wayne Danen, GL*
- **Analytical Quality & Chemical Information Management** (CST-3) *Pat Brug, GL*
- **Bioscience/Biotechnology** (CST-4) *Ed Hildebrand, GL*
- **Chemical Reactions, Kinetics & Dynamics** (CST-6) *Richard Oldenborg, GL*
- **Environmental Science & Waste Technology** (CST-7) *Ines Triay, GL*
- **Inorganic Elemental Analysis** (CST-8) *Bill McKerley, GL*
- **Inorganic Trace Analysis** (CST-9) *Jose Olivares,GL*
- **CMR Upgrades** (CST-10) *Glenn Bentley, GL*
- **Nuclear & Radiochemistry** (CST-11) *Charlie Miller, GL (Actg)*
- **Organic Analysis** (CST-12) *Gerald Ansell, GL*
- **TA-55 Materials Characterization & Analytical Chemistry** (CST-15) *Craig Leasure, GL*
- **Chemical & Environmental Research & Development** (CST-18) *William Tumas, GL*
- **Facility Operations Chemistry Facilities** (CST-25) *Sara Helmick, Fac. Mgr.*
- **Facility Operations Chemistry & Metallurgy Research Facility** (CST-26) *Theresa Cull, Fac. Mgr.*
- **Business Management** *Dianne Nylander*
- **Communication Services** *Bev Wallwork*
- **Planning & Assessment** *Annemarie Gustavsson*
- **Financial Project Management Team** *Douglas Sankey, James Chaffee*; **Property/Procurement Team** *Chris Fresquez*
- **Human Resources** *Portia Blackman*

Los Alamos
NATIONAL LABORATORY

June 16, 1997

The current line organizations are aligned with the Laboratory's core competencies as shown in Appendix E. Other relational matrices for the line organizations are included in this document under the appropriate assessment categories.

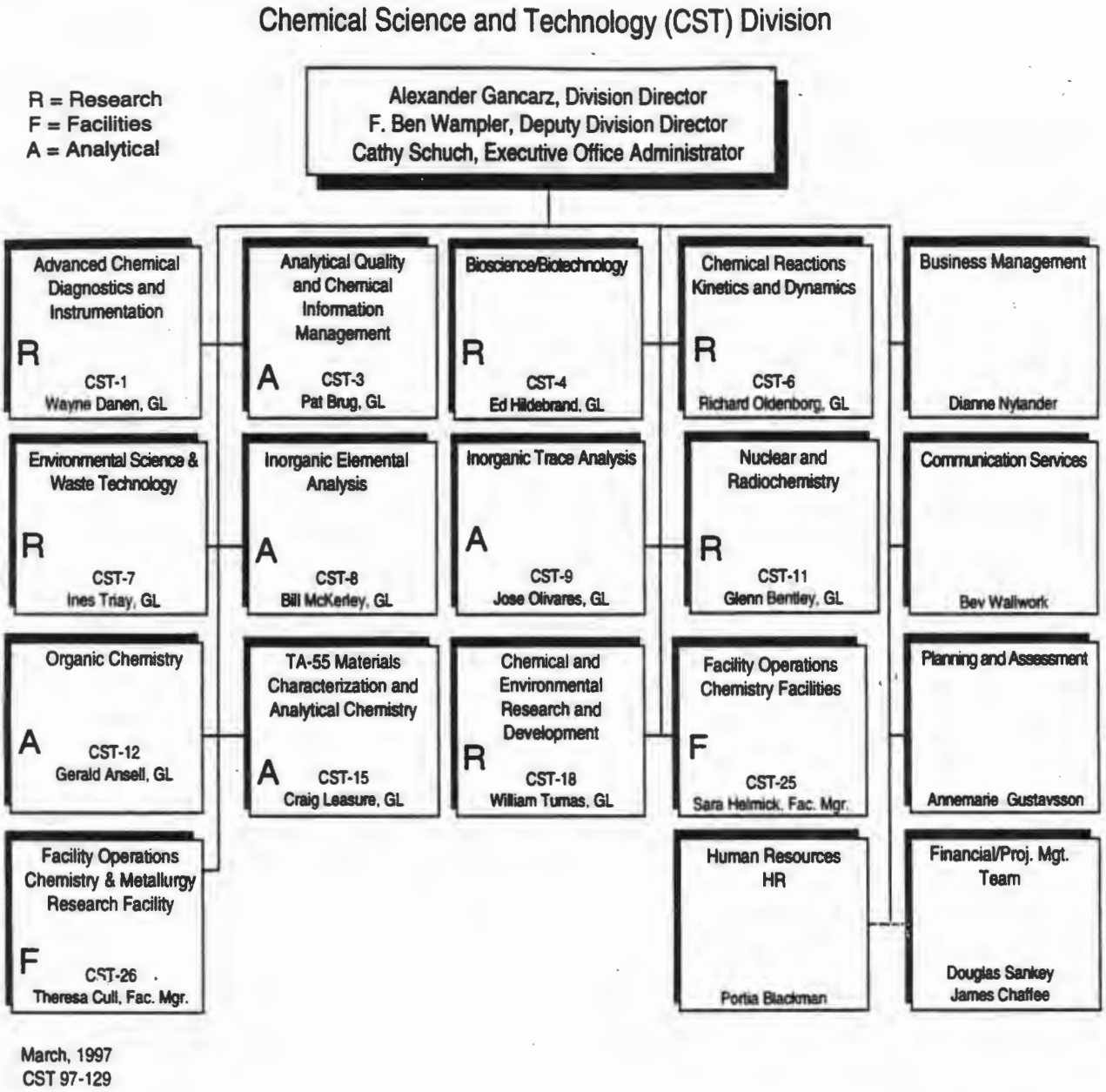


Figure 1–Organizational structure of CST Division.

The Working Groups and Focus Teams (see Appendix C) provide an appropriate vehicle for management of conflicts among cultures and groups. Guidance for the Working Groups and Focus Teams is provided by this plan, the group charters, Division Office communications, and the values and behaviors expressed above. Working Groups are composed of members of the management team. These are decision making bodies with individual charters that deal with tactical issues as well as managing the substantive aspects of the strategic plan. Focus teams are composed of management and staff which allow broadest input for planning, whether tactical or strategic. Combined with the Strategic Planning teams for each of the business goals examined below, these groups and teams provide a format that supports the Division's official structure.

Financial: Figures 2 and 3 present the financial position of the Division with respect to program office for FY95 and FY96 (projected). CST's largest external customers are DOE/Environmental Waste Management, DOE/Defense Programs, DOE/Office of Intelligence and International Security, Laboratory Directed Research and Development, and DOE/Environmental Technologies. Funding by business is approximately: Research 45%, Analytical 25%, Waste Management 25% and Facilities 5%.

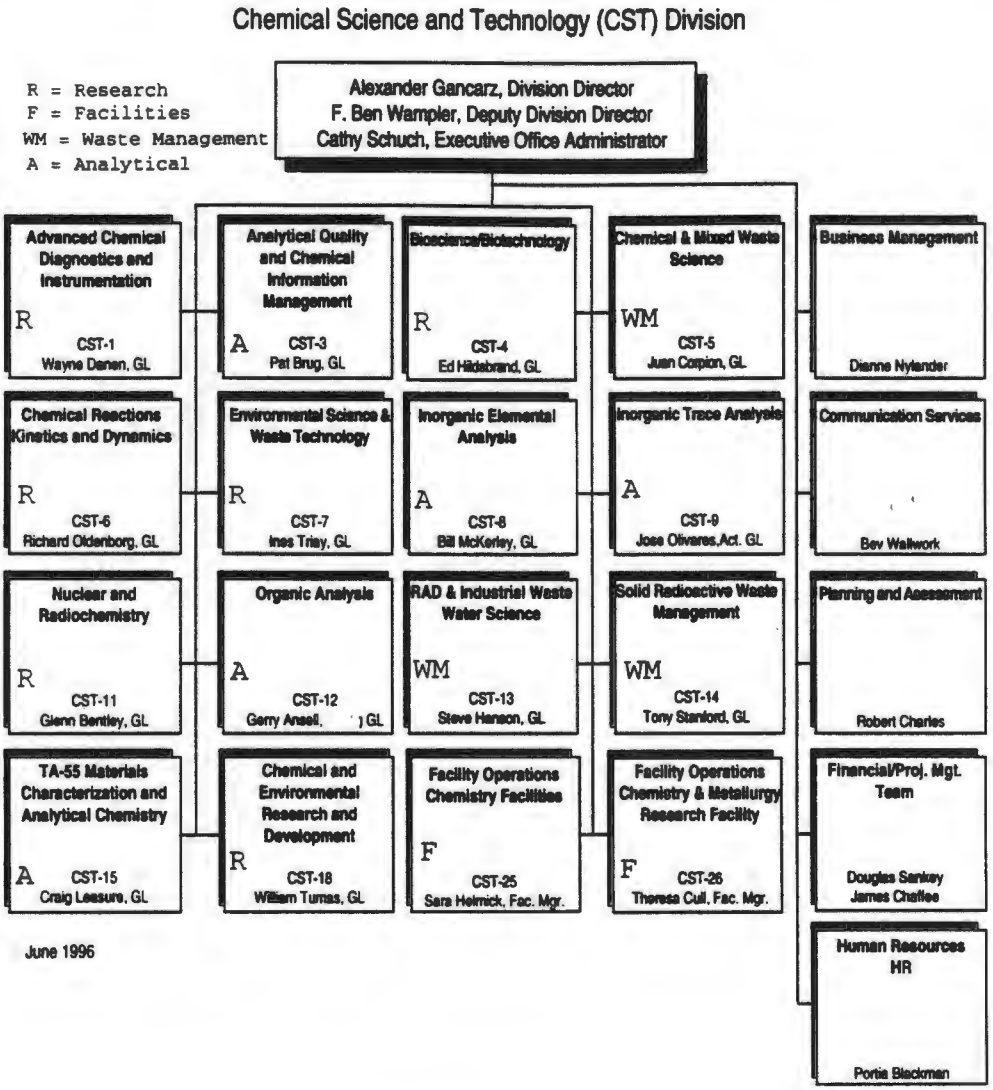
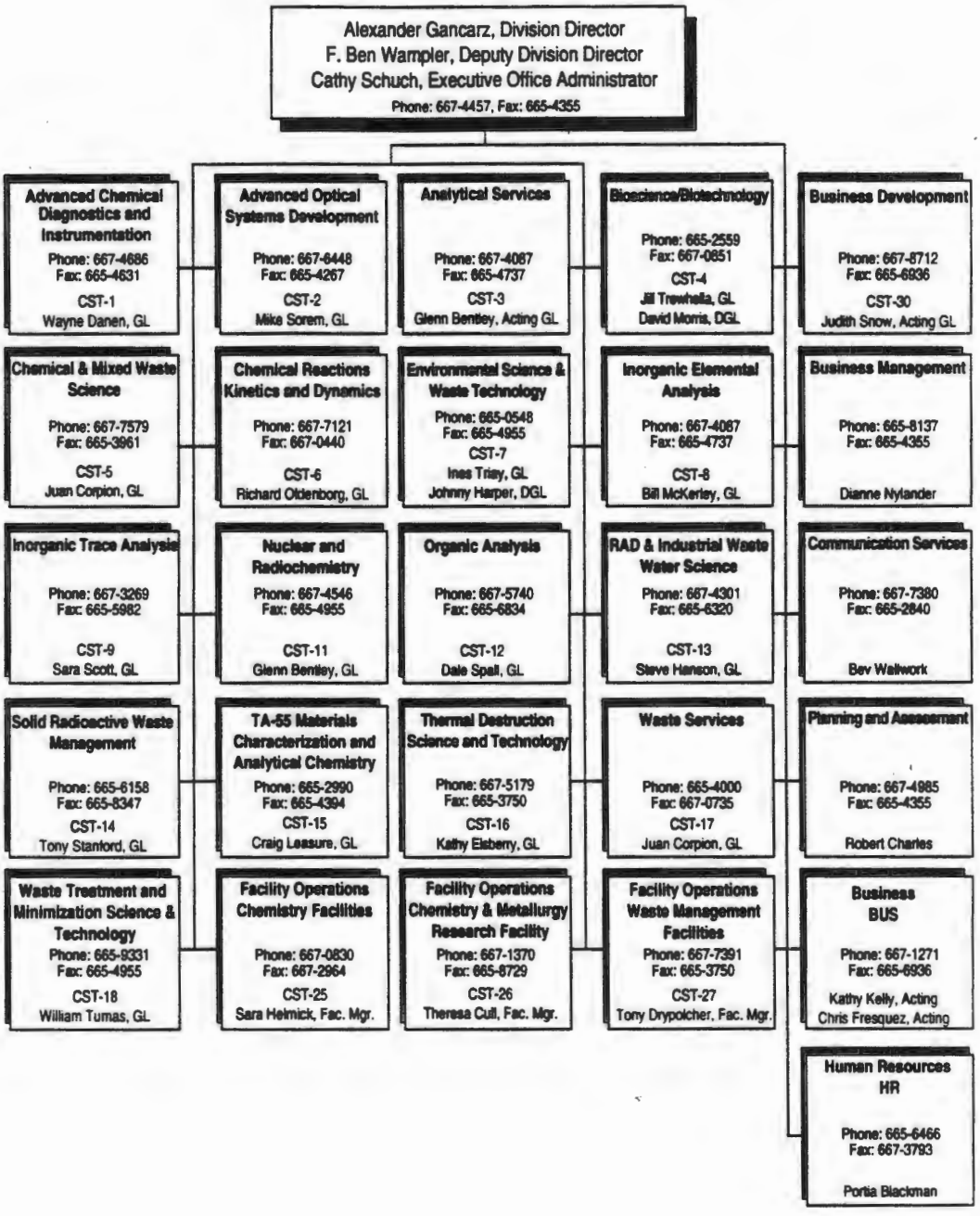


Figure 1–Formal organizational structure of CST Division.

Chemical Science and Technology (CST) Division



The immediate task of the executive is not to place a [person], it is to fill a job. To tolerate diversity, relationships must be task-focused rather than personality-focused.

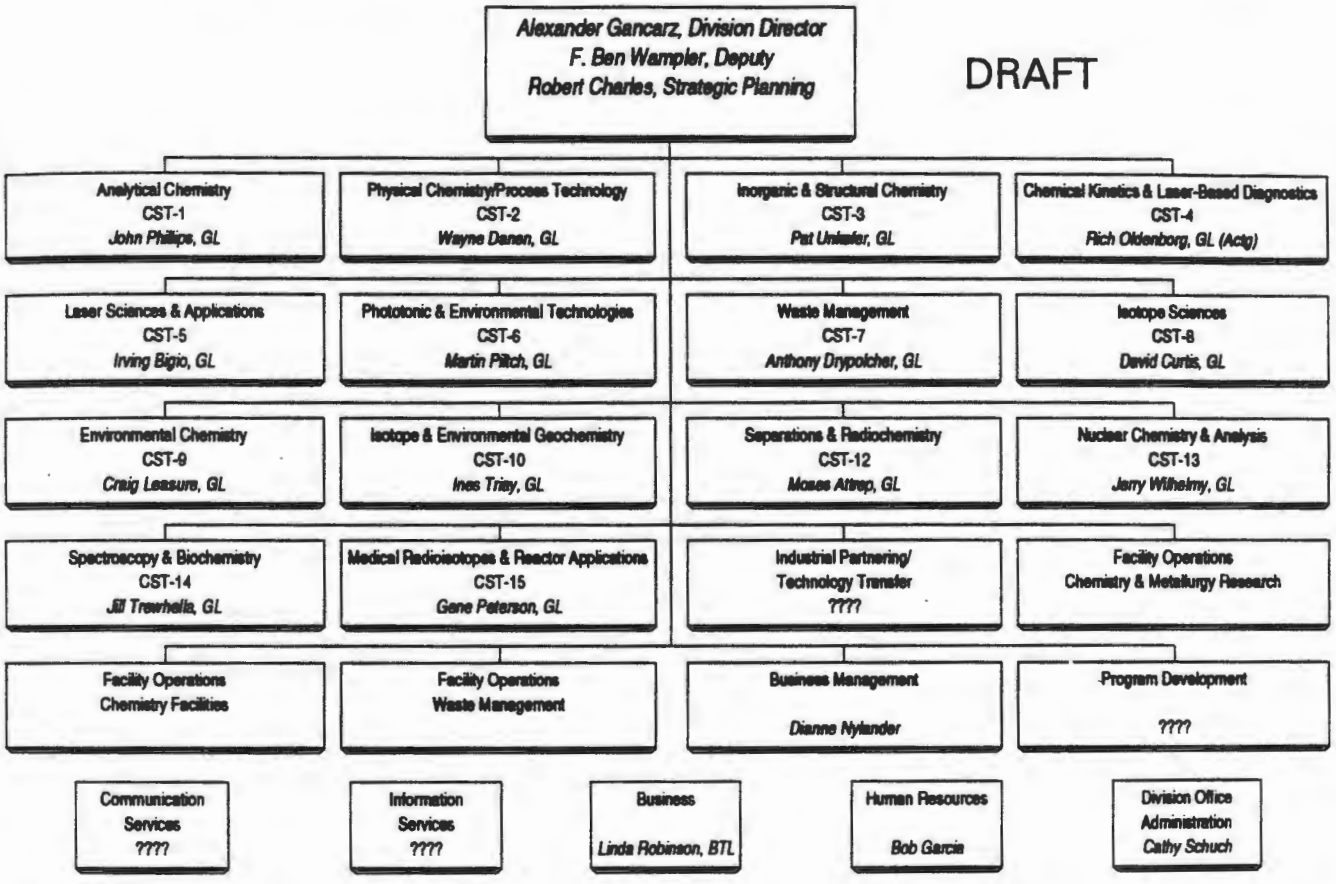
—Peter Drucker

Organization of Chemical Science and Technology Division by group.

Appendix A
Current organizational structure of CST Division.

At this time the organization of the Division reflects some of the temporary discontinuities displayed by the reorganization of the Laboratory. This, while combining many related disciplines into CST Division, has a variety of organizational structures and philosophies associated with the three precursor organizations. The size and operations of Groups varies from the small, very technically oriented groups to large, more service or compliance driven organizations. Numerically, sizes range from about 30 to over 200 per Group. The current structure is presented in Figure 2.

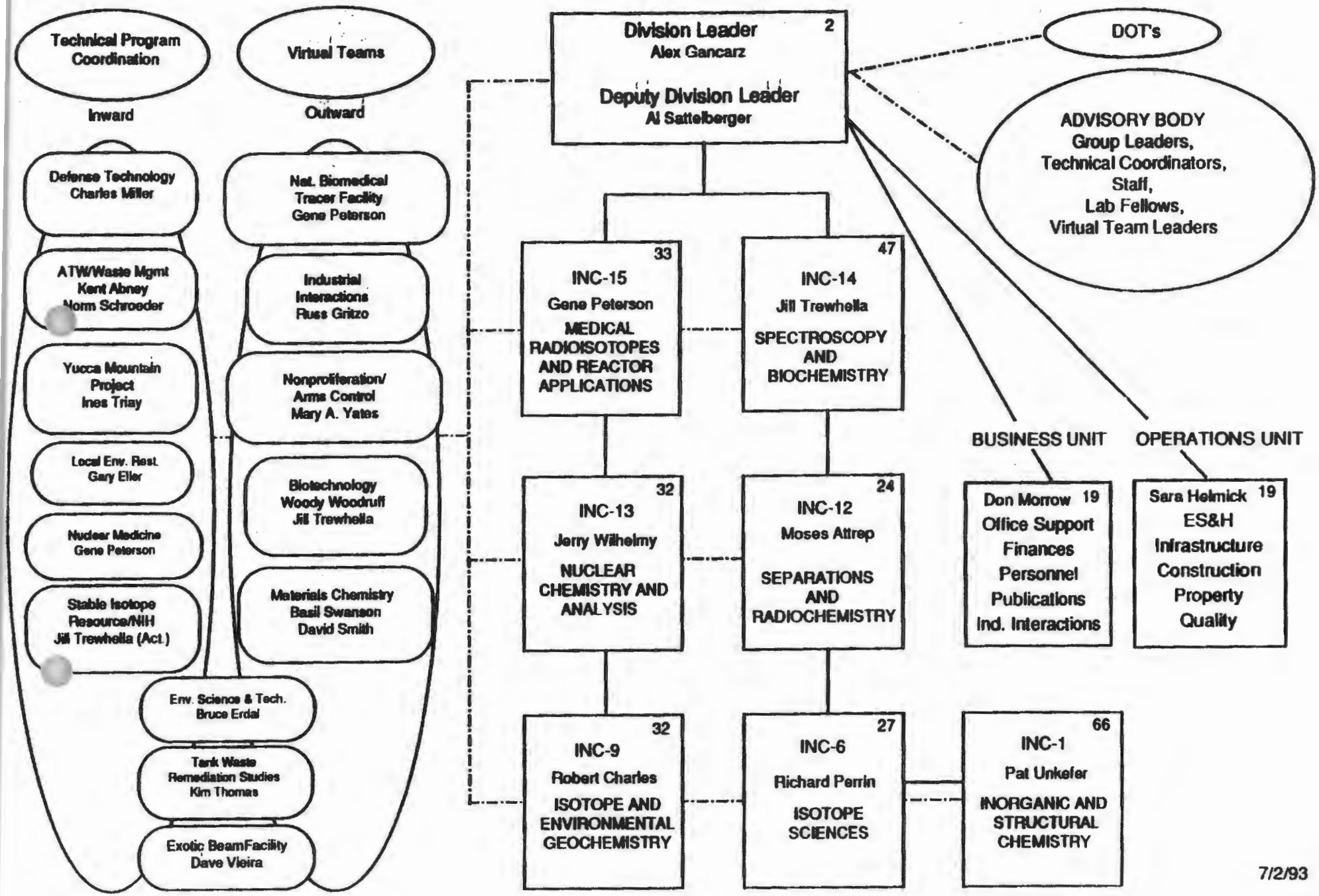
Figure 2
Current Organizational Structure
CHEMICAL SCIENCE AND TECHNOLOGY DIVISION



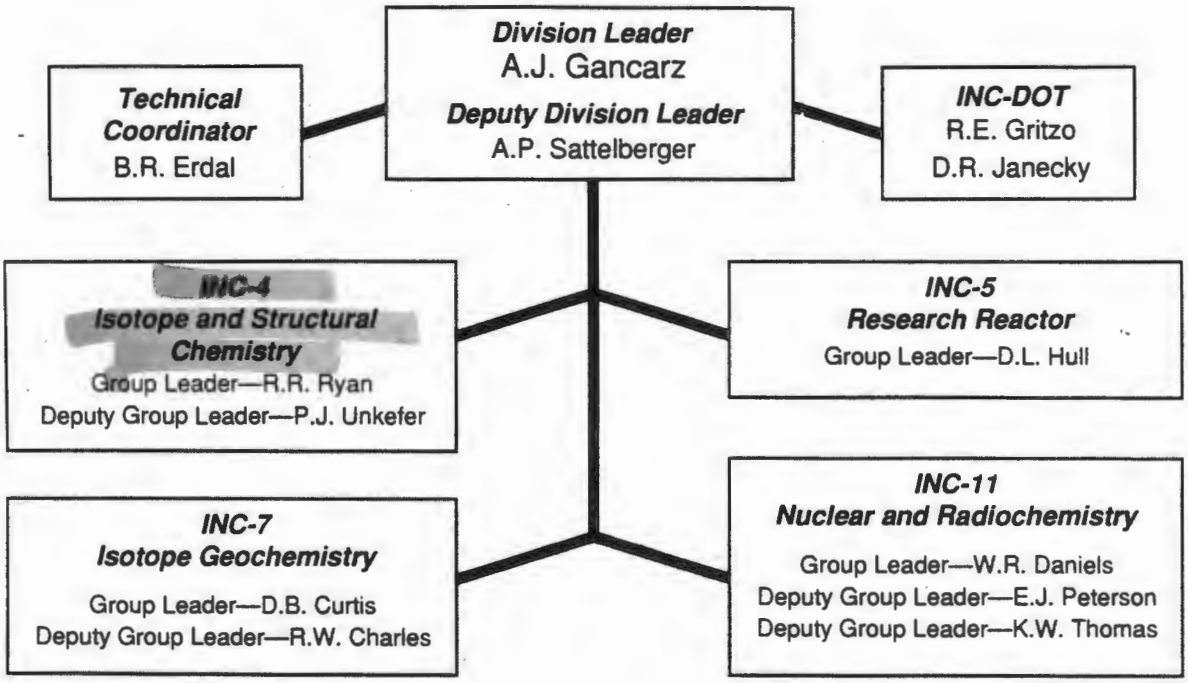
MAY 20, 1994

CSTNOWP.OPW/LH

INC DIVISION



7/2/93



The INC Division's mission is to develop, maintain, and supply capabilities in chemistry, nuclear chemistry, geochemistry, and stable and radioactive isotopes for solution of national security, energy, health, and environmental problems. The Division's four groups foster excellence in fundamental research.

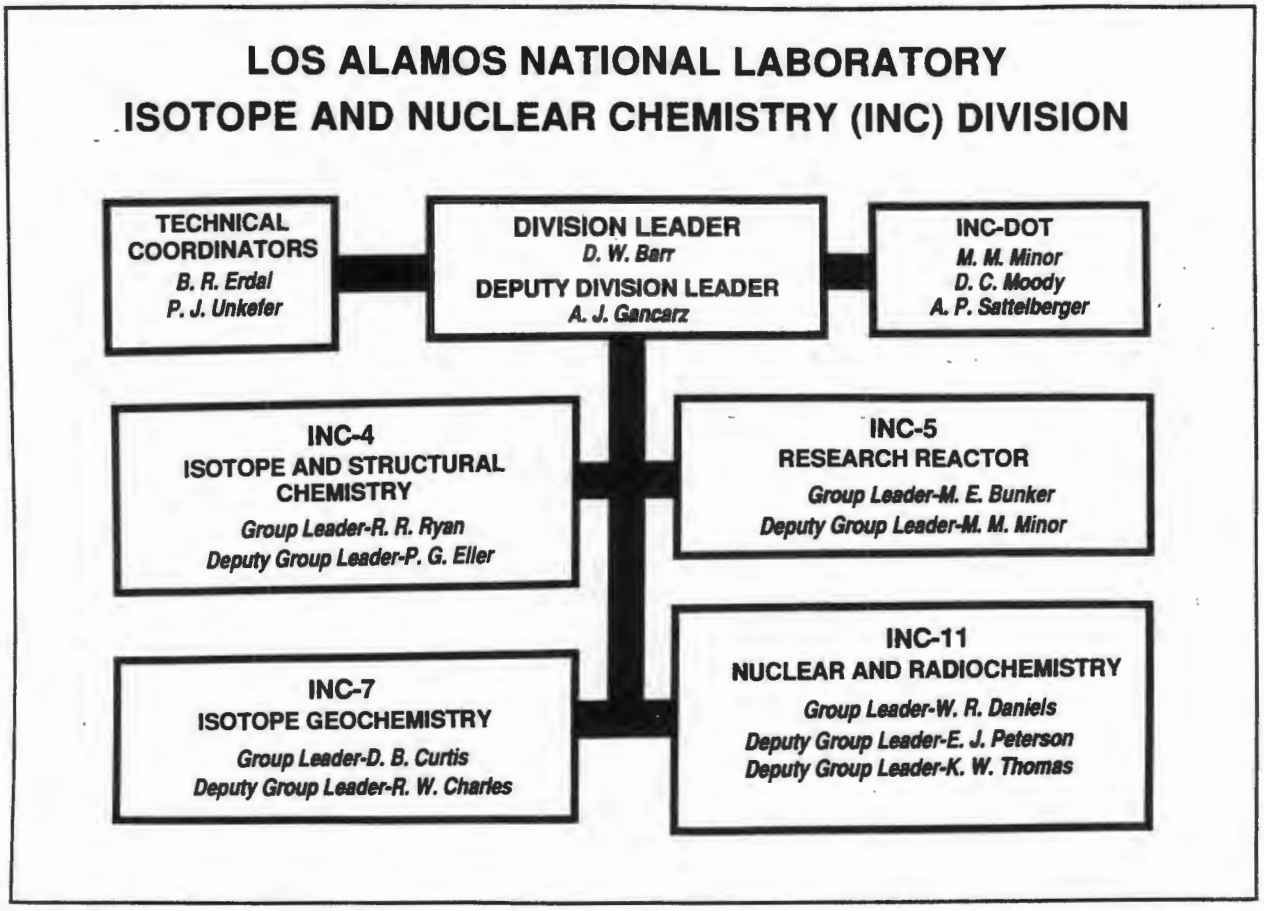
INC Division is divided into four groups that represent its four major areas of interest, expertise, and achievement over the past 30 years: INC-4 Isotope and Structural Chemistry, INC-5 The Research Reactor, INC-7 Isotope Geochemistry, and INC-11 Nuclear and Radiochemistry.

The Division Leader, Deputy Division Leader, Technical Coordinator, Group Leaders, Laboratory Fellows, and Division Office Technical staff members provide leadership, stimulation, and stable management as the Laboratory shifts emphases to reflect the needs of national research efforts.

INC Deputy Division Leader

Alfred Sattelberger came to the Division Office from the Isotope and Structural Chemistry Group (INC-4), where his research focused on actinide coordination and organometallic chemistry, technetium chemistry, multiple metal-metal bonding, low-valent early transition metal chemistry, and organometallic chemical vapor deposition.

Alfred S. Sattelberger
Deputy Division Leader



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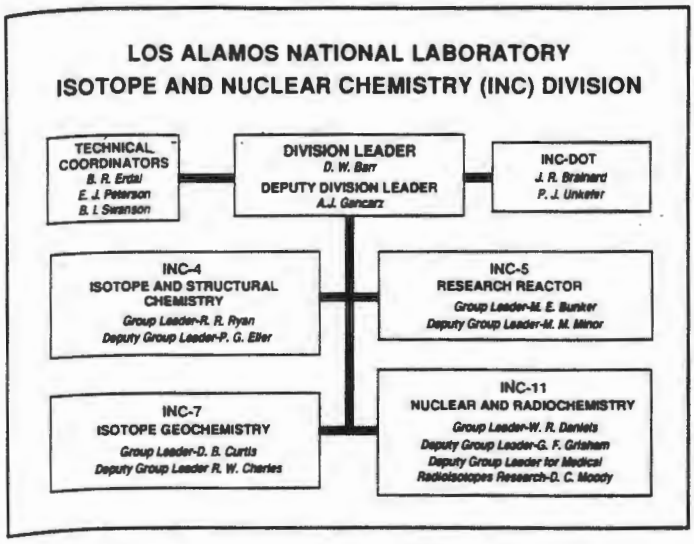
Alexander J. Gancarz
Deputy Division Leader

INC Technical Coordinators

The INC Technical Coordinators help Division and Group leaders develop new programs and directions for research. They are knowledgeable about current programs, areas of emphasis, and the policies of both the Laboratory and external agencies. The Coordinators must also stay abreast of the Division's current capabilities and the new areas being developed. They attempt to couple INC's skills, facilities, and interests with program needs; facilitate interactions with potential sponsors; and, in some cases, encourage entirely new efforts. Environmental programs offer myriad opportunities, particularly in problems related to waste minimization, global change, and



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Deputy Division Leader

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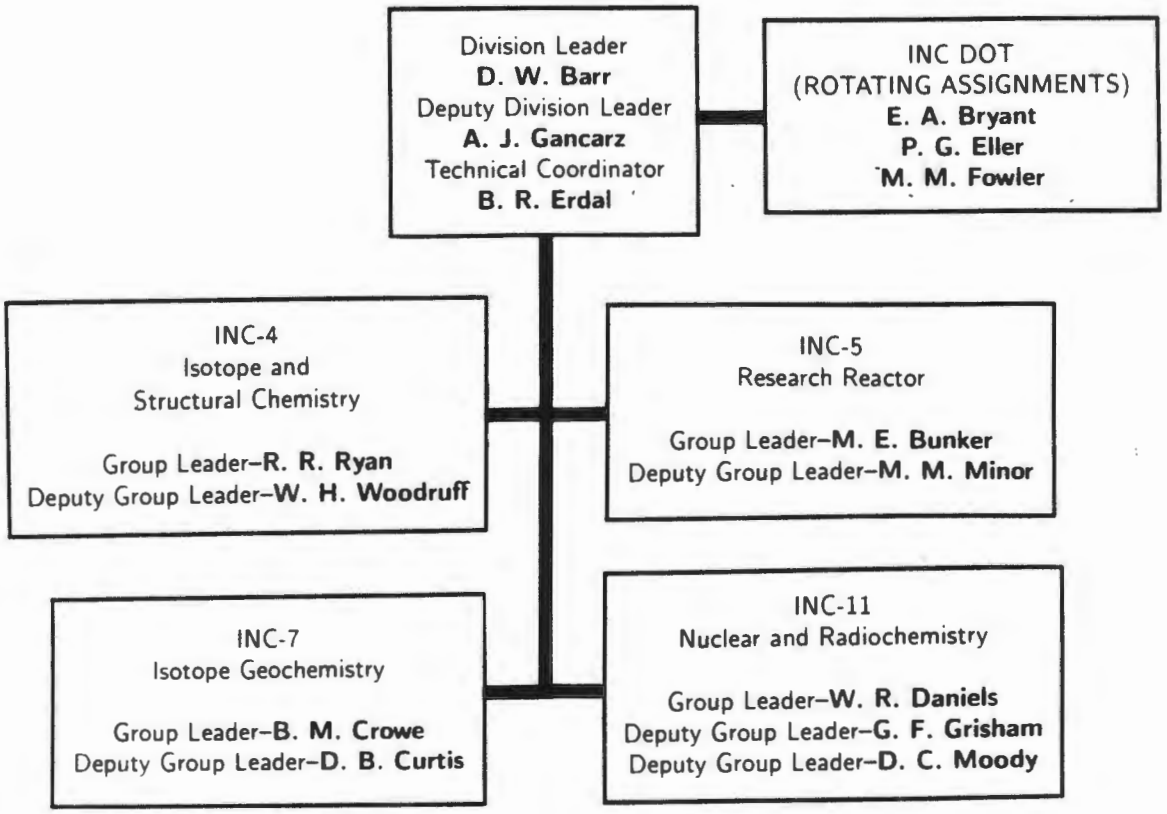
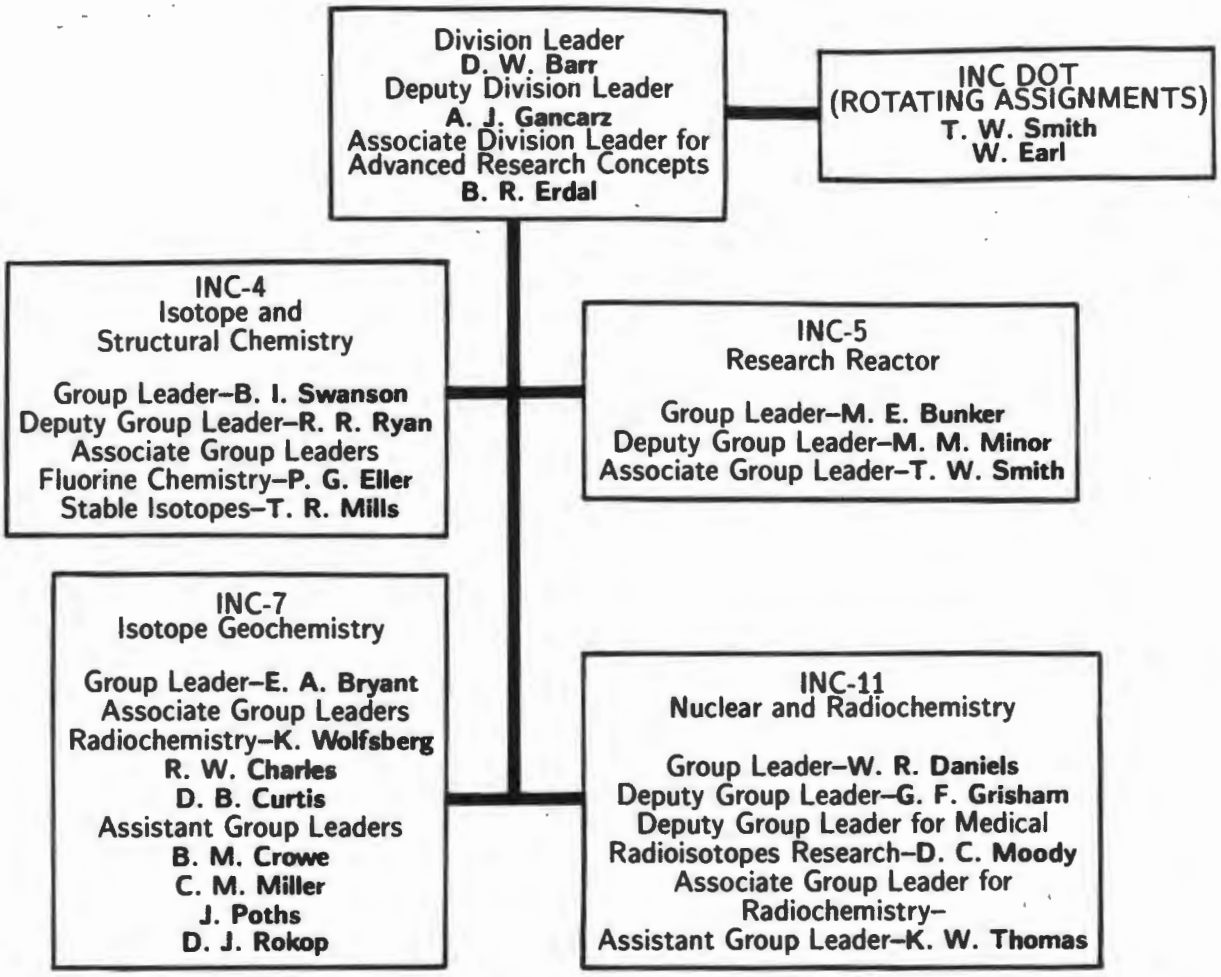
Bruce Erdal, Gene Peterson, and Basil Swanson provide assistance as the Division's Technical Coordinators.

Isotope and Nuclear Chemistry Division



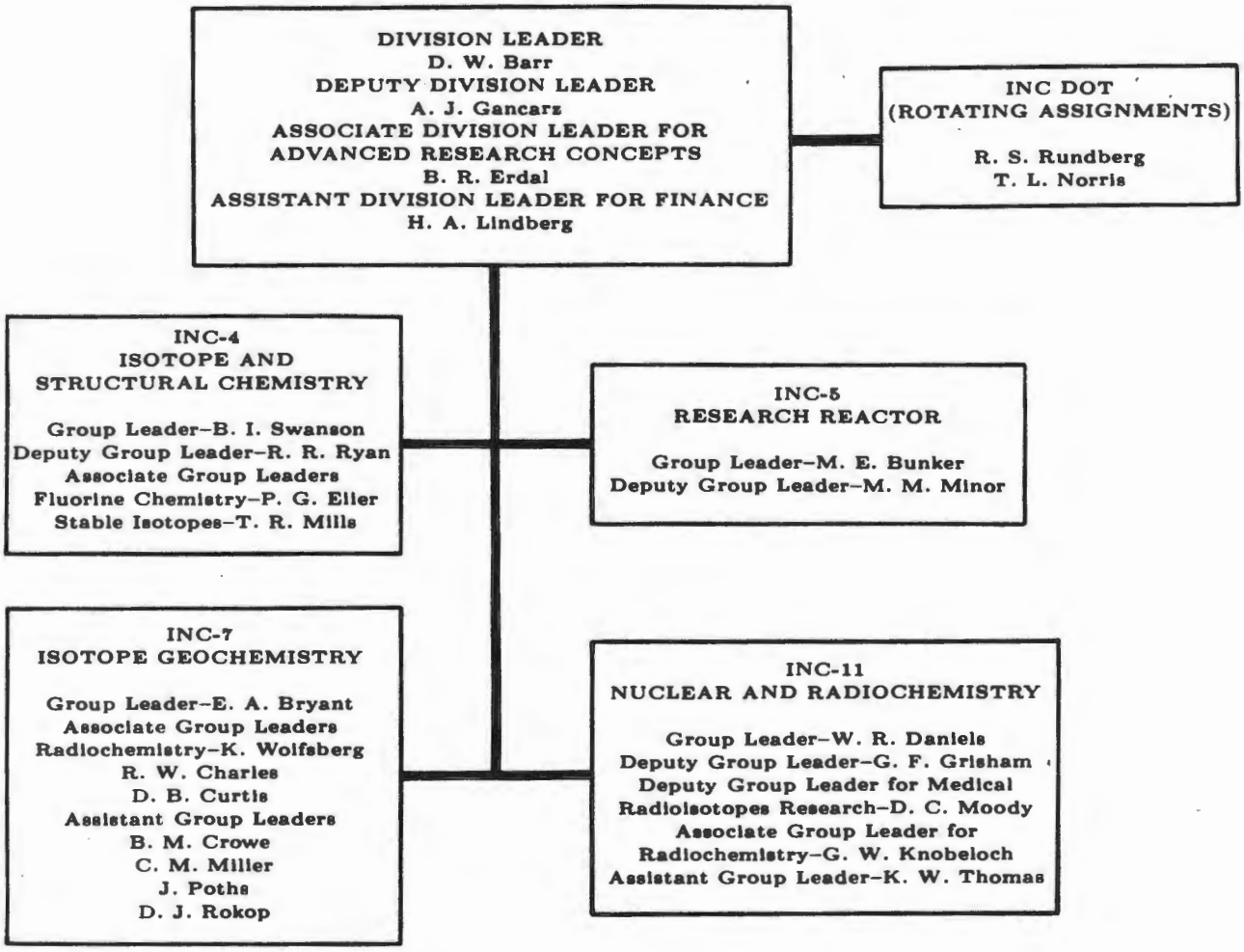
As may be seen in INC Division's organization chart, there have been major changes in the management structure this year. **Robert Ryan** succeeded **Basil Swanson** as Group Leader of INC-4 when Basil returned to full time research work, and **William Woodruff** became Deputy Group Leader. **Bruce Crowe** has taken over group leadership of INC-7 as **Ernest Bryant** also pursues research activities; the position of Deputy Group Leader was filled by **David Curtis**. The INC-DOT positions this year were awarded to **Gary Eller** (INC-4), **Malcolm Fowler** (INC-7), and **Ernest Bryant** (INC-7). In 1987, the Laboratory established a management title restructuring policy that governs the number of management positions in groups and divisions. Consequently, the assistant and associate group leaders listed on organization charts in previous years no longer appear here. Those individuals, however, continue to provide the excellent technical and scientific guidance needed in their respective groups.

Isotope and Nuclear Chemistry Division



This year, as always, we have seen a few changes in our Group and Division Office Management. **Helen A. Lindberg**, Assistant Division Leader for Finance, has left INC Division to pursue her avocation as Editor of the Laboratory's *Defense Science* magazine. One of our most valued mainstays, **Gordon W. Knobeloch**, will be retiring in the next several months and is vacating his position as INC-11 Associate Group Leader for Radiochemistry. In INC-5, **Terry W. Smith** has been appointed Associate Group Leader. **William Earl and Terry W. Smith** received the 1986 appointments to INC's Division Office Technical (DOT) Program.

ISOTOPE AND NUCLEAR CHEMISTRY DIVISION



As some of our seasoned Division personnel reach retirement age, there are changes in our Group and Division office management. The chart above reflects the organization as we go to print in April 1986. Since last year at this time, **James E. Sattizahn** retired from the Laboratory, and **Alexander J. Gancarz** left his position as INC-7 Deputy Group Leader to take on the role of Deputy Division Leader. When INC-3 Group Leader **Harold A. O'Brien** left for a year's sabbatical, INC-3 merged with INC-11 and **David C. Moody** assumed responsibility for Medical Radioisotopes Research as Deputy Group Leader. Also in INC-11, **John P. Balagna**, Associate Group Leader for Data Acquisition, retired from the Laboratory, and **Bruce J. Dropesky**, Associate Group Leader for LAMPF, joined the Division Office to coordinate facilities; **Kim W. Thomas** was named an Assistant Group Leader. **Paul R. Guthals** left INC-7 to join the Laboratory's Nuclear Program Office. **Robert W. Charles** and **David B. Curtis** were selected Associate Group Leaders, and **Bruce M. Crowe**, **Charles M. Miller**, and **Jane Poths** became Assistant Group Leaders for INC-7. **Robert R. Rundberg** and **Thomas L. Norris** received the first two revolving appointments in INC's new Division Office Technical (DOT) Program.

"Classification of excess cylinders & sample cylinders at TA-21-55" X 8/26/96

	Bar Code #	Hazard Class	Tag #	Chem. Name
	2039513	Corrosive	071	Tungsten Hexafluoride
	482	Poison	073	Phosphorus trifluoride
	577	Poison	075	Trifluoroacetyl Fluoride
	578	Unknown	077	Perchlorofluoride
	472	Poison	030	Phosphorus Pentafluoride
	579	Poison	083	Carbonyl Chlorofluoride
	581	Poison	072	Cyanogen Chloride
	583	Poison	086	Selenium Hexafluoride
	507	Poison	097	Antimony Pentafluoride
	587	Corrosive	045	Hydrogen Chloride
	586	Poison	098	Phosphorus Trifluoride
	588	Poison	100	Cyanogen Chloride
	479	Corrosive	096	Bromine Trifluoride
	493	Poison	007	Arsenic Pentafluoride
	462	Poison	074	Arsenic Pentafluoride
	465	Corrosive	[redacted] 093	Hydrogen Iodide
	448	Poison	091	Nickel Carbonyl
	447	Poison	089	Cyanogen Chloride
	446	Poison	090	Cyanogen Gas
☆	591	Unknown	N/A	Unlabeled gas cylinder
☆	592	Unknown	N/A	Unlabeled gas cylinder
☆	593	Unknown	N/A	Unlabeled gas cylinder
	597	Unknown	107	Nitrosyl Chloride ($ClNO_3$)
	598	Poison	108	Carbonyl Sulfide
	599	Poison ~~Corrosive~~	109	Boron Trifluoride

☆ Placed in gas cylinder rack on west side of 55

2039	600	Poison	110	Carbonyl Fluoride
	601	Fluorinating Unknown Oxidizer	111	Nitryl Fluoride (FNO2) 675
	602	Poison	121	Cesium Fluoride
	603	Poison	122	Dimethyl Selenide
	604	Flammable	123	Methyl Mercaptan
	605	Poison	124	Hexafluoroacetone
	606	Poison	125	Sulfur tetrafluoride
	607	Poison	126	Sulfur tetrafluoride
	608	~~Corrosive~~ Poison	127	Chlorine
	609	Corrosive	128	Bromine ~~Fe~~ Pentafluoride
	610	Corrosive	129	Silicon Tetrafluoride
	611	Corrosive	130	Trifluoromethylhypochlorite
	612	~~Corrosive~~ Poison	131	Thionyl Chloride ($SOCl_2$)
	613	Poison	140	Phosphorus oxytrifluoride
	614	Corrosive	141	Sulfur Trioxide (SO_3)
	615	Poison	142	Antimony Pentachloride
	616	Poison	143	Cesium Metal
	617	Poison (?)	134	Potassium Nickel Defluoride 659 K_3NiF_7 (Fluorine Purifier
	618	Poison	136	NaCl & ClF_3
	619	Unknown	138	Sample ~~bomb~~ cylinder
	620	Unknown	144	Small sample cylinder
	621	Poison	145	Chlorine trifluoride
	622	Poison	147	Chlorine trifluoride
	623	Poison	154	Boron Trifluoride
	624	Poison	153	Oxygen difluoride
	625	Poison	152	Hydrogen Fluoride
	626	Radioactive	155	CD_4 (Deuterate Methane)
	627	Oxidizer	156	~~Iso~~ Oxygen, Isotopic
	628	Poison	157	Chlorine Trifluoride

bar code	WPF	ntainer Information					Waste Information				Description	CAS#	msds	Tag#	HAZCLASS	COMMENTS
		type	vol.	unit	tare wt	unit	vol.	unit	weight	unit						
2027631	25487	11	0.25	L	3	P	0.25	L	136	g	Air	0(none)	X	U-25		
2039465	25487	11	0.5	L	5	P	0.5	L	227	g	Hydrogen Iodide	10034-85-2	X	93	Corrosive	
2039499	25487	11	0.5	L	5	P	0.5	L	227	g	Hydrogen Bromide	10035-10-6	X	16	Corrosive	
2039498	25487	11	0.5	L	6	P	0.5	L	272	g	Hydrogen Bromide	10035-10-6	X	59	Corrosive	
2039476	25487	11	0.5	L	6	P	0.5	L	272	g	Nitrogen dioxide	10102-44-0	X	44		
2039570	25487	11	0.5	L	6	P	0.5	L	272	g	Boron trichloride	10294-34-5	X	48	Poison	
2039463	25487	11	0.5	L	5	P	0.5	L	227	g	Boron trichloride	10294-34-5	X	51	Poison	
2044710	25487	11	0.75	L	6	P	0.75	L	272	g	Nitrogen Oxide	10544-72-6	X	U-9		
2039464	25487	11	0.5	L	4	P	0.5	L	182	g	Butadiene	106-99-0	X	70	Flammable	
2039594	25487	11	1	L	4	P	1	L	182	g	Hexafluoropropylene	116-15-4	X	88	Poison	
2039595	25487	11	0.5	L	3	P	0.5	L	136	g	Hexafluoropropylene	116-15-4	X	92	Poison	
2044714	25487	11	0.25	L	3	P	0.25	L	136	g	Carbon dioxide	124-38-9	X	U-23		
2039593	25487	11	8	L	25	P	8	L	1135	g	Hydrogen	1333-74-0	X	U-31		Com.
2039480	25487	11	0.75	L	8	P	0.75	L	363	g	Cesium fluoride	13400-13-0	X	67	Poison	
2039602	25487	11	0.5	L	6	P	0.5	L	272	g	Cesium fluoride	13400-13-0	X	121	Poison	
2039637	25487	11	0.03	L	3	P	0.03	L	136	g	Cesium fluoride	13400-13-0	X	135	Poison	
2039448	25487	11	0.5	L	5	P	0.5	L	227	g	Nickel Carbonyl	13463-39-3	X	91	Poison	P073
2039642	25487	11	0.5	L	3	P	0.5	L	136	g	Iodotrifluoromethane	2314-97-8	X	101	Poison	
2039597	25487	11	0.25	L	4	P	0.25	L	182	g	Nitrosyl Chloride	2696-2-6	X	107	Poison	
2039483	25487	11	0.75	L	7	P	0.75	L	318	g	Sulfuryl Fluoride	2699-79-8	X	2		
2039452	25487	11	0.5	L	4	P	0.5	L	182	g	Trifluoronitrosomethane	334-99-6	X	58		
2039469	25487	11	0.75	L	3	P	0.75	L	136	g	Carbonyl fluoride	353-50-4	X	36	Poison	U 033
2039576	25487	11	0.75	L	7	P	0.75	L	100	G	Carbonyl fluoride	353-50-4	X	38	Poison	100g net U 033
2039468	25487	11	0.75	L	7	P	0.75	L	318	g	Carbonyl fluoride	353-50-4	X	61	Poison	U 033
2039600	25487	11	0.5	L	5	P	0.5	L	227	g	Carbonyl fluoride	353-50-4	X	110	Poison	U 033
2044713	25487	11	0.75	L	5	P	0.75	L	227	g	Carbonyl fluoride	353-50-4	X	U-10	Poison	U 033
2039454	25487	11	0.5	L	5	P	0.5	L	227	g	Pentafluoroethane	354-33-6	X	31		
2039453	25487	11	0.5	L	5	P	0.5	L	227	g	Trifluoroethylene	359-11-5	X	57		
2039492	25487	11	0.75	L	6	P	0.75	L	272	g	Oxalyl fluoride	359-40-0	X	43		
2039488	25487	11	0.75	L	5	P	0.75	L	227	g	Trifluoromethylhypofluorite	373-91-1	X	60	Corrosive	
2039649	25487	11	0.25	L	4	P	0.25	L	182	g	Trifluoromethylhypofluorite	373-91-1	X	118	Corrosive	
2039611	25487	11	1	L	10	P	1	L	454	g	Trifluoromethylhypofluorite	373-91-1	X	130	Corrosive	
2039446	25487	11	1	L	5	P	1	L	227	g	Cyanogen gas	460-19-5	X	90	Flammable	
2039598	25487	11	0.25	L	3	P	0.25	L	136	g	Carbonyl sulfide	463-58-1	X	108	Poison	
2039581	25487	11	0.5	L	6	P	0.5	L	272	g	Cyanogen chloride	506-77-4	X	72	Poison	P 033
2039447	25487	11	1	L	8	P	1	L	363	g	Cyanogen chloride	506-77-4	X	89	Poison	P 033
2039588	25487	11	0.5	L	5	P	0.5	L	227	g	Cyanogen chloride	506-77-4	X	100	Poison	P 033
2039509	25487	11	0.5	L	5	P	0.5	L	227	g	Sulfur pentafluoride	5714-22-7	X	47		
2039491	25487	11	0.75	L	7	P	0.75	L	318	g	Disulfur Decafluoride	5717-22-7	X	6	Poison	
2039506	25487	11	0.75	L	7	P	0.75	L	318	g	Disulfur Decafluoride	5717-22-7	X	12	Poison	
2039573	25487	11	0.5	L	5	P	0.5	L	227	g	Cis-2-butene	590-18-1	X	66		Need more info
2039603	25487	11	0.75	L	10	P	0.75	L	454	g	Dimethyl Selenide	593-79-3	X	122		
2039645	25487	11	0.5	L	3	P	0.5	L	136	g	Bromotrifluoroethylene	598-73-2	X	103	Flammable	
2039605	25487	11	0.5	L	7	P	0.5	L	318	g	Hexafluoroacetone	684-16-2	X	124		
2039648	25487	11	0.5	L	2	P	0.5	L	91	g	Hexafluorobutyne-2	692-50-2	X	104		Need more info (benzene)
2039654	25487	11	0.5	L	2	P	0.5	L	91	g	Hexafluorobutyne-2	692-50-2	X	105		Need more info

Generator Activity - ID Material & Label

- Inspect work space(s)
- Identify legacy material items in work space(s)
  (**DO NOT HANDLE UNKNOWNS – Contact the LMT Field Team Leader for sampling**)
- Handle known legacy items to apply ID barcodes and obtain labeling information

Generator Activity - Verify Radioactive / Non-Radioactive

- **Work with generator site ESH-1 RCT**
- **Determine surface non-radioactive** - AK and analytical measurements as appropriate
- **Determine internally non-radioactive** - AK and analytical measurements as appropriate

Generator Activity - Complete Data Form

- Record Item ID #, point of origin, container and material description, weights and volumes on data form
- Record the name, z-number, mail stop and telephone of the individual identifying the material

Known materials

Legacy Team Activity – Unknown Materials

- ESH-19 Sampling Team samples item at point of origin
- ESH-19 Sampling Team submits samples for analysis
- ESH-19 Sampling Team completes WPF for analyzed item
- Sampling results provided to Legacy Materials Team Leader and Legacy Materials Project Leader

Shared Generator & Legacy Team Activity – Analytical Results

- Generator representative signs WPF
- Legacy Team Leader submits signed WPR for processing
- Legacy Team Leader notifies generator representative upon WPF approval

Generator Activity - Transport Material to Legacy Drop Point

- Generator representative transports legacy materials to designated drop point using existing facility procedures
- Legacy Team assumes responsibility upon acceptance of materials and appropriate data forms
- **UNDER NO CIRCUMSTANCES MAY MATERIALS BE ABANDONED AT THE DROP POINT**

A

A

Legacy Team Activity - Segregate and Package Materials

- Legacy Team members determine hazard classification of item
- Legacy Team members package item in DOT specification shipping containers insuring incompatible materials are not placed within the same container
- Legacy Team members move the closed container into the <90 day storage area

Legacy Team's < 90 day storage unit?

Generator's < 90 day storage unit?

Legacy Team Activity – Daily / Weekly Inspection <90 day Storage Area

Legacy Team Activity – Apply Tamper Seals to Containers Prior to Storage

Generator Activity – Daily / Weekly Inspection <90 day Storage Area

Legacy Team Activity - Paperwork Completion & Review

- Team completes paperwork data entry
- Team completes paperwork review / approval cycle
- Team generates draft shipping paper package
- Transportation Manager reviews / approves shipping paper package
- Approved shipping package returned to Legacy Team

Legacy Team Activity –Ship Materials

- Repackage materials as required after shipping paper review
- Load transport vehicle
- Sign shipping papers
- Transport either to TA-54 or directly offsite as appropriate

End Process

TA-21 Building 3 and 4 Waste Profile

WPF#	Date	TA	Bldg	Room	Gen Name	Description
7723	18-Jan-94	21	3	301	HEIDI DOUGLAS	SOLID WASTES (EX. KIMWIPES, GLOVES, PIPETTES, ETC.) CONTAMINATED WITH HEAVY
						METALS AND ORGANIC SOLVENTS, BOTH CHLORINATED AND NON-CHLORONATED
7833	27-Jan-94	21	3	361	SEAN REILLY	ORGANICS SOLVENTS AND WATER CONTAINING SMALL AMOUNTS OF ORGANIC COMPOUNDS AND
						METAL SALTS GENERATED DURING CHEMICAL LABORATORY REACTIONS AND OTHER OPERATIONS
7855	2-Feb-94	21	3	317	TRACEY FRANKCOM	USED PHOTOGRAPHIC DEVELOPER
7896	7-Feb-94	21	3	317	TRACEY FRANKCOM	USED PHOTOGRAPHIC FIXER
7934	14-Feb-94	21	4	406	JOHN FITZPATRICK	C14 - DOCECANE - 100UCI
7935	14-Feb-94	21	4	406	JOHN FITZPATRICK	TM 171 - 2ND IN 0.1N HCL (1M CI) - NEUTRALIZED GROUTED
7936	14-Feb-94	21	4	406	JOHN FITZPATRICK	CE144 - 1M IN .5M HNO3 NEUTRALIZED GROUTED 1 ML IN 0.1 M HCL
7937	14-Feb-94	21	4	406	JOHN FITZPATRICK	RU 106 5.0 MCI IN 4MHCL - NEUTRALIZED GROUTED
7938	14-Feb-94	21	4	406	JOHN FITZPATRICK	PO210 500UCI FROM A STATIC MASTER (?)
7939	14-Feb-94	21	4	406	JOHN FITZPATRICK	PM 147 2.0 MCI AS PMCI3 IN HCL - NEUTRALIZED TO GROUTED TO MAKE A SOLID
7940	14-Feb-94	21	4	406	JOHN FITZPATRICK	PA231 - RESIDUES AND SWEEPINGS - GROUTED
7941	14-Feb-94	21	4	406	JOHN FITZPATRICK	C14 - BUTANOL - 100 UCI
7947	16-Feb-94	21	4	406	JOHN FITZPATRICK	USED LEAD/TIN SOLDER
7970	18-Feb-94	21	3	3291/301	TRACEY FRANKCOM	NON-HALOGENATED SOLVENT WASTE FROM BENCH SCALE EXPERIMENTAL INORGANIC CHEMISTRY
8034	2-Mar-94	21	3	3291/301	RICHARD SCHNABEL	MAKING AG [BPHY] FROM NA [BPHY3 + AG (NO3) IN H2O
8074	8-Mar-94	21	4	406	JOHN FITZPATRICK	MERCURY CONTAMINATED GLASS, PLASTIC AND PAPER - SOME FREE MERCURY POSSIBLE! -
						BROKEN THEMOMETER, ETC
8115	14-Mar-94	21	3	361	SEAN REILLY	CHEMISTRY RESEARCH LAB SOLID WASTE (TOWELS, PAPER, GLASS) CONTAINING ABSORBED
						RESIDUAL SOLVENTS AND CHEMICALS. NONHAZARDOUS SOLIDS W/ABSORBED LIQUIDS.
8845	22-Jun-94	21	3	306	DAVID CLARK	WASTE NON-HALOGENATED SOLVENTS WITH METAL CONTAMINANTS
8853	23-Jun-94	21	3	2J	JOHN HANNERS	USED PUMP OIL
9839	19-Oct-94	21	3	326	HELEN IAMS	AQUEOUS URANIUM SOLUTION - DEPLETED URANIUM - 0.2% HNO3
9840	19-Oct-94	21	3	326	HELEN IAMS	AQUEOUS HEAVY METAL SOLUTION - PB & HG
9847	20-Oct-94	21	3	326	HELEN IAMS	HEAVY METALS. SOLD LAB WASTE
9848	20-Oct-94	21	3	326	HELEN IAMS	WASTE CONTAMINATED WITH HEAVY METALS - LIQUID PB & HG AND ORGANIC SOLVENT
10221	14-Dec-94	21	3	0	DAVID ARNEY	LOW LEVEL RAD. (NAT-TH, 238-U) IN ORGANICS. SEE ATTACHED SHEET FOR ~ APPROX.
						CONTENTS
10264	20-Dec-94	21	3	306	REBECCA HOLLIS	WASTE NON-RADIOACTIVE NON-HALOGENATED ORGANIC SOLVENTS WITH METAL CONTAMINANTS
20048	24-Jan-95	21	3	329	JARRETT, KATHRYN A	GENERIC WPF FOR UNUSED/UNSPENT CHEMICALS
20079	1-Feb-95	21	3	306	WATKIN, JOHN G	TC 99 SPILL ON RUBBER RUG IN ~ 10 MG OF TETRABUTYLAMMONIUM CHLORIDE IN METHANOL
20082	1-Feb-95	21	3	306	ANGEL, PAULETTE	WAS A MOP AND BUCKET USED FOR CLEANING UP A CONTAMINATED AREA AND IS NOW
						CONTAMINATED WITH TC99 DUST FROM ELEMENTAL ANALYZER EQUIPMENT.
20100	3-Feb-95	21	3	329	ANGEL, PAULETTE	PUMP OIL USED IN BLDG. 3 POSSIBLY CONTAMINATED W/U238 & TH-NAT & TC99.
20277	2-Mar-95	21	3	500A	WATKIN, JOHN G	BURNED-OUT FLUORESCENT LAMPS, 8 FEET IN LENGTH. MSDS SHEETS ARE ATTACHED.
20322	9-Mar-95	21	3	301	FRANKCOM, TRACEY M	WASTE GENERATED IN BENCH SCALE EXPERIMETNAL INORGANIC CHEMISTRY COVERED UNDER
						SEVERAL SOP'S. WASTE IS PREDOMINANTLY SOLVENTS, BUT MAY CONTAIN SUSPENDED
						SOLIDS.
20323	9-Mar-95	21	3	301B	FRANKCOM, TRACEY M	ORGANIC SOLVENT WASTE GENERATED IN BENCH SCALE EXPERIMENTAL INORGANIC CHEMISTRY
						UNDER SEVERAL SOP'S. WASTE IS PREDOMINANTLY SOLVENTS BUT MAY CONTAIN SUSPENDED
						SOLIDS.
20371	14-Mar-95	21	3	301	EHLER, DEBORAH SUE	AQUEOUS WASTES CONTAINING ARSENIC GENERATED IN ENVIRONMENTAL R&D RESEARCH.
20373	14-Mar-95	21	3	301	EHLER, DEBORAH SUE	AQUEOUS WASTES CONTAINING METALS

TA-21 Building 3 and 4 Waste Profile

WPF#	Date	TA	Bldg	Room	Gen Name	Description	
						GENERATED IN ENVIROMENTAL R&D & SOIL WASHING	
						PROCESSES.	
20382	14-Mar-95	21	4	412	STOUT, DANIEL S	RINSE WATER FROM CLEANING STACK SLUDGE OUT OF STACK (ATTACHED ANALYSIS IS FOR	
						SLUDGE PRIOR TO RINSING) AND FOR RINSING CAUSTIC OR ACID CONTAINERS.	
20580	6-Apr-95	21	3	301	DOUGLAS, HEIDI M.	WASTE CONTAINS MOSTLY PAPER, GLASS, COTTON AND PLASTIC CONTAMINATED WITH HEAVY	
						METALS AND ORGANIC LIGANDS FROM ORGANOMETALLIC SYNTHESIS. IT ALSO CONTAINS	
						ALUMINA AND CELITE WITH SMALL AMOUNTS OF ABSORBED LIQUIDS.	
20656	17-Apr-95	21	3	0	STOUT, DANIEL S	CONTAMINATED SOIL FROM BUILDING 3 SOUTH FOOTPRINT.	
21024	7-Jun-95	21	3	301B	FRANKCOM, TRACEY M	WASTE GENERATED IN BENCH SCALE EXPERIMENTAL, NON-RADIOLOGICAL, INORGANIC	
						CHEMISTRY COVERED BY SEVERAL SOP'S. WASTE COMPRISED OF GLOVES, PAPER, FILTER	
						AGENTS (CLAYS), GLASS, AND PLASTICS WITH HAZARDOUS CONTAMINANTS. NO FREE	
						LIQUIDS, BUT VIALS CONTAINING INORGANIC TRANSITION METAL COMPLEXES PRESENT.	
21025	7-Jun-95	21	3	301B	FRANKCOM, TRACEY M	ORGANIC SOLVENT WASTE, INCLUDING HALOGENATED MATERIALS, GENERATED IN BENCH SCALE	
						EXPERIMENTAL INORGANIC CHEMISTRY COVERED UNDER SEVERAL SOP'S. WASTE MAY CONTAIN	
						SUSPENDED SOLIDS. NO RADIOACTIVE WASTE.	
21026	7-Jun-95	21	3	301B	FRANKCOM, TRACEY M	WASTE GENERATED IN BENCH SCALE EXPERIMENTAL INORGANIC CHEMISTRY COVERED UNDER	
						SEVERAL SOP'S. WASTE PREDOMINANTLY SOLVENTS BUT MAY CONTAIN SUSPENDED SOLIDS.	
						NON-HALOGENATED, NON-RADIOACTIVE WASTE ONLY.	
21027	7-Jun-95	21	3	301B	FRANKCOM, TRACEY M	APPROXIMATELY 1 MOLAR AQUEOUS SOLUTION OF SILVER NITRATE USED FOR WASHING	
						EXPERIMENTS WITH CLAYS. INORGANIC CHEMISTRY COVERED UNDER SEVERAL SOP'S AT TA	
						21	
21028	7-Jun-95	21	3	301B	FRANKCOM, TRACEY M	BROMINE STORED OVER PHOSPHORUS PENTAOXIDE IN A 250 ML CAPACITY GLASS VESSEL.	
						INORGANIC CHEMISTRY ACTIVITIES AT TA21 COVERED UNDER SEVERAL SOP'S	
21029	7-Jun-95	21	3	301B	FRANKCOM, TRACEY M	SODIUM/MERCURY AMALGAM WITH POSSIBLE U-238 CONTAMINATION. ACTIVITIES COVERED	
						UNDER SEVERAL SOP'S FOR INORGANIC CHEMISTRY AT TA21.	
21030	7-Jun-95	21	3	301B	FRANKCOM, TRACEY M	PUMP OIL WITH PARTICULATE U-238 CONTAMINATION. OIL USED FOR STORAGE AND CUTTING	
						OF U-238 RODS, NOT COVERED UNDER ANY SOP.	
21031	7-Jun-95	21	3	301B	FRANKCOM, TRACEY M	APPROXIMATELY 1.5 MMOLAR AQUEOUS SOLUTION OF UO2 WITH APPROXIMATELY 10 MMOLAR	
						SODIUM CITRATE, FROM BENCH SCALE PHOTOLYSIS EXPERIMENTS COVERED UNDER SEVERAL	
						SOP'S	
21313	7-Jul-95	21	3	307	SMITH, DAVID C	SOLID LAB WASTE - COMPOUNDS, BOTTLES, RAGS, WEIGHING PANS, SIEVES, FILTER	
						MEDIUM, PLASTIC BAGS.	
21314	7-Jul-95	21	3	307	SMITH, DAVID C	AQUEOUS/ORGANIC WASTE WITH IRDIUM, RHODIUM AND PLATINUM.	
21315	7-Jul-95	21	3	307	SMITH, DAVID C	500 ML OF TRIPHENYL PHOSPHITE IN TWO GLASS (500 ML EACH) BOTTLES.	
21316	7-Jul-95	21	3	307	SMITH, DAVID C	ETHYLENE GLYCOL/WATER SOLUTION	
21317	7-Jul-95	21	3	307	SMITH, DAVID C	SOLVENT WASTE FROM INORGANIC/ORGANIC METALLIC SYNTHETIC RESEARCH. LIQUID WASTE	
						WITH SOLID MATTER.	
21318	7-Jul-95	21	3	307	SMITH, DAVID C	SYNTHETIC INORGANIC/ORGANOMETALLIC CHEMISTRY	
21319	7-Jul-95	21	3	307	SMITH, DAVID C	MAGNESIUM POWDER AND TRIMINGS IN TWO SMALL VIALS	
21320	7-Jul-95	21	3	307	SMITH, DAVID C	INORGANIC COMPOUND IN SECONDARY CONTAINER. TRIMETHYL AMINE HYDROCHLORIDE	
21321	7-Jul-95	21	3	307	SMITH, DAVID C	AQUEOUS WASTE GENERATED FROM TREATING IGNITABLE / REACTIVE SOLIDS WITH WATER /	
						ALCOHOL (ETHANOL / ISOPROPANOL)	
21322	7-Jul-95	21	3	307	SMITH, DAVID C	INORGANIC COMPOUND IN SECONDARY CONTAINER. ZIRCONIUM TETRA IS PROPOXIDE.	
21323	7-Jul-95	21	3	307	SMITH, DAVID C	ORGANIC AMINE IN SECONDARY CONTAINER.	
21324	7-Jul-95	21	3	307	SMITH, DAVID C	UNUSED CHEMICAL IN SECONDARY CONTAINER. DIPHENYLPHOSPHINE ETHERATE	

TA-21 Building 3 and 4 Waste Profile

WPF#	Date	TA	Bldg	Room	Gen Name	Description	
21325	7-Jul-95	21	3	307	SMITH, DAVID C	WASTE CATEGORY- NONE OF THE LISTED CATEGORIES APPLY. MIXED INORGANIC SOLID WASTE	
						GENERATED FROM R&D SYNTHETIC CHEMISTRY.	
21326	7-Jul-95	21	3	307	SMITH, DAVID C	POTASSIUM PERMANGANATE / WATER SOLUTION USED FOR CLEANING GLASS WARE	
21327	7-Jul-95	21	3	307	SMITH, DAVID C	WASTE ORGANIC SOLVENT / INORGANIC SOLID GENERATED FROM R&D OF INORGANIC	
						SYNTHESIS.	
21328	7-Jul-95	21	3	307	SMITH, DAVID C	ASSOCIATED DOCUMENTATION- WASTE PROCESS SHEET MATRIX MIXED ORGANIC AQUEOUS	
						LIQUID AND INORGANIC SOLIDS	
21370	10-Jul-95	21	3	307	SMITH, DAVID C	25 ML OF ACETIC ANHYDRIDE IN GLASS BOTTLE	
21920	29-Aug-95	21	3	ALL	KUBICEK, JIRI	OIL DRAINED FROM PUMPS USED IN CONTROLLED AREAS - POSSIBLE RADIOACTIVE	
						CONTAMINATION SOME SOLVENT CONTAMINATION POSSIBLE ALSO. 8/30/95 NO PCB'S PER	
						GENERATOR. K.ART	
21921	29-Aug-95	21	3	ALL	KUBICEK, JIRI	USED MERCURY, BROKEN THERMOMETERS, BROKEN BUBBLERS, GLASS AND PAPER USED IN	
						CONTAINMENT OF MERCURY FROM CONTROLLED AREA - POSSIBLE SOLVENT AND/OR	
						RADIOACTIVE CONTAMINATION.	
22047	11-Sep-95	21	3	307	KUBICEK, JIRI	SEVERAL UNKNOWN WASTES NEEDING ANALYSIS	
22171	22-Sep-95	21	4	0	BAYHURST, GREGORY K	BOREHOLE CUTTINGS FROM DEEP WELL. LADP 4 IS IN LOS ALAMOS CANYON. BOREHOLES WERE	
						DRILLED FOR GEOLOGIC & HYDROGEOLOGIC CHARACTERIZATION. DRILLING INTERVAL FROM	
						0-20 IS CONTAMINATED WITH CS-137 WHICH WAS IDENTIFIED DURING SURFACE SAMPLING OF	
						21-011(K). METAL (NON-HAZ), INSULATION (NON-ASBESTOS).	
22172	22-Sep-95	21	3	0	NEWTON, CARL	BOREHOLE CUTTINGS FROM LADP 4. BOREHOLES WERE DRILLED FOR GEOLOGIC &	
						HYDROGEOLOGIC CHARACTERIZTION, DRILLING INTERVAL @ VAPOR PHASE NOTCH 150-170 FT.	
22180	22-Sep-95	21	3	301	KUBICEK, JIRI	COMPATIBLE WASTES COMBINED TOGETHER FROM CLEAN-OUT OF BUILDING 3 FOR D&D.	
22188	22-Sep-95	21	3	0	BAYHURST, GREGORY K	DRILL CUTTINGS FROM LADP-3 DEPTH 75' TO 80'.	
22449	26-Oct-95	21	3	301	KUBICEK, JIRI	95DS339-95.12524 ANALYSIS ATTACHED, CHEMICALS WERE BURNED-CHEMICAL LIST	
						ATTACHED, WASTE CONTAINS ASH AND DEBRIS FROM BURNED CONTAINERS-IE-LIDS, GLASS,	
						9-28-95 DS.	
22450	26-Oct-95	21	3	301	KUBICEK, JIRI	95DS340 - 95.12525 - ANALYSIS ATTACHED, CHEMICALS WERE BURNED - CHEMICAL LIST	
						ATTACHED. WASTE CONTAINS ASH AND DEBRIS FROM BURNED CHEMICALS LIDS, GLASS	
						9-28-95 DS.	
22451	26-Oct-95	21	3	301	KUBICEK, JIRI	95DS341 - 95.12526 - ANALYSIS ATTACHED, CHEMICALS WERE BURNED-CHEMICAL LIST	
						ATTACHED. WASTE CONTAINS ASH AND BURNED MATERIALS, GLASS, JAR LIDS 9-28-95 DS.	
22706	1-Dec-95	21	3	301	RAND, GREGORY P	CLEAR LIQUID FOUND IN D&D PROJECT. ANALYSIS ATTACHED. SAMPLE NUMBER 95DS504, RAD	
						ANALYSIS 492. THIS IS CONSIDERED A HAZ-CAT AND COMPLETE RCRA CHARACTERIZATION IS	
						NOT AVAILABLE. 11-9-95 DS	
22798	12-Dec-95	21	3	307	KUBICEK, JIRI	SILVER COLORED SHAVINGS FOUND IN D&D PROJECT. DUE TO THE SMALL AMOUNT OF	
						MATERIAL AN XRF ANALYSIS WAS PERFORMED. FURTHER ANALYSIS IS NOT POSSIBLE. SEE	
						ATTACHED HAZ-CAT MEMO. SAMPLE #'S 9505502, AND RAD #490. 11-7-95 D.S.	
22799	12-Dec-95	21	3	307	KUBICEK, JIRI	GREY METAL POWDER FOUND IN D&D PROJECT. ANALYSIS ATTACHED SAMPLE NUMBER 9505498,	
						RAD SAMPLE NUMBER 486. DUE TO THE SMALL AMOUNT OF MATERIAL AN XRF ANALYSIS WAS	
						PERFORMED. REFERENCE ATTACHED HAZ-CAT MEMO. A FIELD REACTIVITY TEST WAS	
						PERFORMED. 11-7-95 D.S.	
22800	12-Dec-95	21	3	307	KUBICEK, JIRI	BLACK POWDER FOUND IN D&D PROJECT. DUE TO THE SMALL AMOUNT OF MATERIAL AN XRF	
						ANALYSIS WAS PERFORMED. SAMPLE NUMBER 9505500 AND 488. A FIELD REACTIVITY WAS	
						ALSO PERFORMED. THIS MATERIAL IS CONSIDERED A HAZ-CAT. SEE ATTACHED HAZ-CAT	
						MEMO. 11-7-95 D.S.	

TA-21 Building 3 and 4 Waste Profile

WPF#	Date	TA	Bldg	Room	Gen Name	Description	
22801	12-Dec-95	21	3	307	KUBICEK, JIRI	BLACK POWDER FOUND IN D&D PROJECT. DUE TO THE SMALL AMOUNT AN XRF ANALYSIS WAS	
						PERFORMED. SEE ATTACHED HAZ-CAT MEMO. SAMPLE #9505499, RAD SAMPLE #487. A FIELD	
						REACTIVITY TEST WAS ALSO PERFORMED. 11-7-95 D.S.	
22802	12-Dec-95	21	3	307	KUBICEK, JIRI	WHITE POWDER MATERIAL FOUND IN A D&D PROJECT. ANALYSIS ATTACHED, SAMPLE NUMBER	
						9505497. DUE TO THE SMALL AMOUNT OF MATERIAL AN XRF ANALYSIS WAS ONLY POSSIBLE.	
						SEE ATTACHED HAZ-CAT MEMO. ONLY MINOR TRACES OF METALS WERE FOUND IN THIS SAMPLE	
						AND NO FURTHER ANALYSIS IS POSSIBLE. A FIELD TEST FOR REACTIVITY WAS DONE WITH	
						THE SUBSTANCE BEING NON-REACTIVE. RAD DATA SAMPLE # 95DS485 11-7-95 DS	
22803	12-Dec-95	21	3	307	KUBICEK, JIRI	COPPER COLORED GRANULES FOUND IN D&D PROJECT. DUE TO THE SMALL AMOUNT THIS IS	
						CONSIDERED A HAZ-CAT AND AN XRF ANALYSIS WAS DONE. SEE ATTACHED HAZ-CAT MEMO.	
						SAMPLE NUMBERS 9505505 AND 493. A FIELD REACTIVITY TEST WAS PERFORMED. NO MAJOR	
						COMPONENTS WERE FOUND IN THIS SAMPLE AND FURTHER ANALYSIS ARE NOT POSSIBLE.	
						11-7-95 D.S.	
22804	12-Dec-95	21	3	307	KUBICEK, JIRI	WHITE POWDER FOUND IN D&D PROJECT. DUE TO THE SMALL AMOUNT OF MATERIAL AN XRF	
						ANALYSIS WAS PERFORMED. SEE ATTACHED HAZ-CAT MEMO. A FIELD ANALYSIS WAS	
						PERFORMED. SAMPLE #9505501 AND RAD ANALYSIS NUMBER 489. 11-7-95 D.S.	
22888	5-Jan-96	21	3	301	WARNER, BEN	ORGANIC SOLVENTS USED IN CHEMICAL RESEARCH	
22889	5-Jan-96	21	3	301	WARNER, BEN	ORGANIC SOLVENTS USED IN CHEMICAL RESEARCH	
22890	5-Jan-96	21	3	301	WARNER, BEN	ORGANIC SOLVENTS USED IN CHEMICAL RESEARCH	
22891	5-Jan-96	21	3	301	WARNER, BEN	ORGANIC SOLVENTS USED TO QUENCH REACTIVE METALS	
23006	22-Jan-96	21	3	0	ROYBAL, MATTHEW J	GENERIC WASTE PROFILE FOR DISPOSAL OF UNUSED/UNSPENT CHEMICALS.	
23157	12-Feb-96	21	3	0	WHITTINGTON, JAMES G.	WASTE MERCURY FROM GENERAL LAB OPERATIONS	
23158	12-Feb-96	21	3	211	WHITTINGTON, JAMES G.	WASTE FROM D & D PROJECT CONSISTING OF GLASSWARE, PAPER, PLASTIC, METAL,	
						CONCRETE, LUMBER, ELECTRONIC EQUIPMENT, FURNITURE, RUBBER. WASTE CONTAINES NO PC	
						BOARDS.	
23261	28-Feb-96	21	4	0	STOUT, DANIEL S	BUILDING DEBRIS, HOODS AND GLOVEBOXES FROM TA-21 BUILDING 4 SOUTH	
						DECOMMISSIONING. (STAINLESS AND CARBON STEEL).	
23428	1-Apr-96	21	3	307	WHITTINGTON, JAMES G.	SILVER COLORED SHAVINGS FOUND IN D&D PROJECT. DUE TO THE SMALL AMOUNT OF	
						MATERIAL AN XRF ANALYSIS WAS PERFORMED. FURTHER ANALYSIS IS NOT POSSIBLE. SEE	
						ATTACHED HAZ-CAT MEMO. SAMPLE #'S 9505502 AND RAD #490. 11-7-95 D.S.	
23429	1-Apr-96	21	3	307	WHITTINGTON, JAMES G.	GREY METAL POWDER FOUND IN D&D PROJECT. ANALYSIS ATTACHED SAMPLE NUMBER 9505498,	
						RAD SAMPLE NUMBER 486. DUE TO THE SMALL AMOUNT OF MATERIAL AN XRF ANALYSIS WAS	
						PERFORMED REFERENCE ATTACHED HAZ-CAT MEMO. A FIELD REACTIVITY TEST WAS	
						PERFORMED. 11-7-95 D.S.	
23430	1-Apr-96	21	3	307	WHITTINGTON, JAMES G.	BLACK POWDER FOUND IN D&D PROJECT. DUE TO THE SMALL AMOUNT OF MATERIAL AN XRF	
						ANALYSIS WAS PERFORMED. SAMPLE NUMBER 9505500 AND 488. A FIELD REACTIVITY WAS	
						ALSO PERFORMED. THIS MATERIAL IS CONSIDERED A HAZ-CAT SEE ATTACHED HAZ-CAT MEMO.	
						11-7-95 D.S.	
23431	1-Apr-96	21	3	307	WHITTINGTON, JAMES G.	BLACK POWDER FOUND IN D&D PROJECT. DUE TO THE SMALL AMOUNT AN XRF ANALYSIS WAS	
						PERFORMED. SEE ATTACHED HAZ-CAT MEMO. SAMPLE #9505499, RAD SAMPLE # 487. A FIELD	
						REACTIVITY TEST WAS ALSO PERFORMED. 11-7-95 D.S.	
23516	8-Apr-96	21	4	0	STOUT, DANIEL S	SOIL FROM TA-21, BUILDINGS 3 & 4 SOUTH	
24249	25-Jun-96	21	3	0	STOUT, DANIEL S	BUILDING DEBRIS (NOT CONTAMINATED)	
24250	25-Jun-96	21	3	0	STOUT, DANIEL S	BUILDING DEBRIS FROM TA-21, 3 & 4 NORTH	
25291	5-Dec-96	21	3	0	STOUT, DANIEL S	SOIL BENEATH BIULDINGS 3 AND 4 NORTH AT TA-21.	

CLASSIFICATION OF EXCESS & SAMPLE CYLINDER at TA-21-55					
AUGUST 22, 23 and 26, l996					
BAR CODE #	HAZARD CLASS	TAG #	CHEMICAL NAME	Formula	
2039446	Poison	90	Cyanogen gas		
2039447	Poison	89	Cyanogen Chloride		
2039448	Poison	91	Nickel Carbonyl		
2039462	Poison	74	Arsenic Pentafluoride		
2039465	Corrosive	93	Hydrogen Iodide		
2039472	Poison	30	Phosphorus Pentafluoride		
2039479	Corrosive	96	Bromine Trifluoride		
2039482	Poison	73	Phosphorus Trifluoride		
2039490	Poison	82	Sulfur Monofluoro-Pentafluoride		
2039493	Poison	7	Arsenic Pentafluoride		
2039495	Poison	76	Bromine Trifluoride		
2039496	Poison	78	Phosphorus Oxifluoride		
2039497	Poison	5	Tellurium Hexafluoride		
2039504	Poison	79	Bromine Pentafluoride		
2039505	Poison	94	Molybdenum Hexafluoride		
2039506	Poison	12	Disulfur Decafluoride		
2039507	Poison	97	Antimony Pentafluoride		
2039513	Corrosive	71	Tungsten Hexafluoride		
2039514	Poison	95	Monochloro Sulfur Pentafluoride		
2039577	Poison	75	Trifluoroacetyl Fluoride		
2039578	Poison	77	Perchlorofluoride		
2039579	Poison	83	Carbonyl Chlorofluoride		
2039580	Poison	80	Arsenic Trifluoride		
2039581	Poison	72	Cyanogen Chloride		
2039582	Poison	81	Tellurium Hexafluoride		
2039583	Poison	86	Selenium Hexafluoride		
2039584	Poison	84	Phosphorous Pentafluoride		
2039585	Poison	85	Boron Trifluoride		
2039586	Poison	98	Phosphorus Trifluoride		
2039587	Corrosive	45	Hydrogen Chloride		
2039588	Poison	100	Cyanogen Chloride		
2039589	Corrosive	99	Hydrogen Chloride		
2039590	Corrosive	9	Hydrogen Chloride		
2039591	unknown	N/A	unlabeled gas cylinder		
2039592	unknown	N/A	unlabeled gas cylinder		
2039593	unknown	N/A	unlabeled gas cylinder		
2039594	Poison	88	Hexafluoro Propylene		
2039595	Poison	92	Hexafluoropropylene Oxide		
2039596	Poison	87	Trifluoroacetyl Chloride		
2039597	Poison	107	Nitrosyl Chloride		
2039598	Poison	108	Carbonyl Sulfide		
2039599	Poison	109	Boron Trifluoride		
2039600	Poison	110	Carbonyl Fluoride		
2039601	Fluorinating Oxidizer	111	Nitryl Fluoride		
2039602	Poison	121	Cesium Fluoride		
2039603	Poison	122	Dimethyl Selenide		
2039604	Flammable	123	Methyl Mercaptan		

2039605	Poison`	124	Hexafluoroacetone		
2039606	Poison	125	Sulfur Tetrafluoride		
2039607	Poison	126	Sulfur Tetrafluoride		
2039608	Poison	127	Chlorine		
2039609	Corrosive	128	Bromine Pentafluoride		
2039610	Corrosive	129	Silicon Tetrafluoride		
2039611	Corrosive	130	Trifluoromethyl Hypochlorite		
2039612	Poison	131	Thionyl Chloride		
2039613	Poison	140	Phosphorus Oxytribluoride		
2039614	Corrosive	141	Sulfur Trioxide		
2039615	Poison	142	Antimony Pentachloride		
2039616	Poison	143	Cesium metal		
2039617	Poison	134	Potassium Nickel Difluoride		
2039618	Poison	136	NaCl and Chlorine Trifluoride		
2039619	unknown	138	sample cylinder		
2039620	unknown	144	small sample cylinder		
2039621	Poison	145	Chlorine Trifluoride		
2039622	Poison	147	Chlorine Trifluoride		
2039623	Poison	154	Boron Trifluoride		
2039624	Poison	153	Oxygen Difluoride		
2039625	Poison	152	Hydrogen Fluoride		
2039626	Radioactive	155	Deuterate Methane		
2039627	Oxidizer	156	Isotopic Oxygen		
2039628	Poison	157	Chlorine Trifluoride		
2039636	Poison	113	F3 NO (radioactive)?		
2039642	Poison	101	Iodo-Trifluoro Methane		
2039645	Poison	103	Bromo-Trifluoro Ethylene		
2039648	Poison	104	Hexafluoro Butyne-2		
2039651	Poison	102	Chloro-Trifluoro Ethylene		
2039654	Poison	105	Hexafluoro Butyne-2		
2039657	Poison	106	Antimony Pentafluoride		
2039658	Poison	120	Chlorine Oxytrifluoride		
2039633	Poison	114	Sulfur Oxytetrafluoride		
2039630	Poison	115	unknown Fluoride		
2039655	Poison	116	Molybdenum Hexafluoride		
2039652	Corrosive	117	Titanium Tetrachloride		
2039649	Poison	118	Trifluoromethyl Hypofluorate		
2039646	Oxidizer	119	Monochloro-trifluoro-Oxide		
2039643	Corrosive	133	Hydrogen Fluoride	HF	
2039640	Poison	132	Chlorine Trifluoride	Cl F3	
2039637	Poison	135	Cesium Fluoride		
2039659	Poison	137		Br F5 Mg5	N2
2039656	Poison	139	Potassium Fluoride		
2039653	unknown	146	F10 N2 or F10 Ni2 ???		
2039647	Poison	151	Nitrogen Trifluoride		
2039650	Corrosive	150	Tungsten Hexafluoride		
2039644	Fluorinating Oxidizer	148	Xenon Hexafluoride	Xe F6	
2039641	Poison	149	Molybdenum Hexafluoride	Mo F6	
2039455	Poison	63	Cyano-pentafluoro Ethane		
2039456	Poison	56	Cyano-trifluoro Methane		
2039459	?	62	Halo ? Carbon		

2039458	Compressed?Flam?	52	Freon/Hexafluoro Ethane		
2039570	Corrosive	48	Boron Trichloride		
2039463	Poison	51	Boron Trichloride		
2039466	Flammable	49	Cyclopropane		
2039464	Flammable	70	Butadiene		
2039469	Poison	36	Carbonyl Fluoride		
2039573	Flammable	66	Cis-Z-Butene		
2039571	Poison	33	Sulfur Chlorine Trifluoride	CF3S-	SCF3
2039572	Poison	13	Hexafluorocyto Butane		
2039574	Poison	54	Arsenic Pentafluoride		
2039575	Poison	11	Phosphorus Trifluoride		
2039576	Poison	38	Carbonyl Fluoride		
2039480	Poison	67	Cesium Fluoride		
2039488	Oxidizer	60	Trifluoro-Methyl-Hypofluorite		
2039498	Poison	59	Hydrogen Bromide		
20394809	Poison	68	Silicon Fluoride		
2039501	Poison	1	Bromine Trifluoride		
2039477	Poison	69	Bromine Trifluoride		
2039474	Corrosive	37	Sulfur Tetrafluoride		
2039491	Poison	6	Disulfur-Decafluoride		

2039459	?	62	Halocarbon
2039458	Compressed Flammable	52	Freon / Hexafluoroethane
2039570	Corrosive	48	Boron Trichloride
2039463	Poison	51	Boron Trifluoride
2039466	Flammable	49	Cyclopropane
2039464	Flammable	70	Butadiene
2039469	Poison	36	Carbonyl Fluoride
2039573	Flammable	66	Cis-2-butene
2039571	Poison	33	CF_3SSCF_3 Sulfur chloride trifluoride
2039572	Poison	13	Hexafluorocyclobutane
2039574	Poison	54	Arsenic pentafluoride
2039575	Poison	11	Phosphorous trifluoride
2039576	POISON	38	CABONIL FLOURIDE
2039480	POISON	67	CESIUM FLOURIDE
2039488	OXIDIZER	60	TRIFLOUROMETHYL HYPO-FLOURITE
2039498	POISON	59	HYDROGEN BROMIDE
039489	POISON	68	SILICON FLOURIDE
039501	POISON	1	BROMINE TRIFLOURIDE
039477	POISON	69	BROMINE TRIFLOURIDE
039474	CORROSSIVE	37	SULFUR TETRAFLOURIDE
039491	POISON	6	DISULFER DECAFLOURIDE

(18 Total entries)

39506	POISON	12	DISULFER DECA FLOURIDE
39497	POISON	5	TELLURIUM HEXAFLOURIDE
39495	POISON	76	BROMINE TRI FLOURIDE
39496	POISON	78	PHOSPHOROUS OXI FLOURIDE
39504	POISON	79	BrF_5 Bromine Pentafluoride
39580	POISON	80	ARSENIC TRI FLOURIDE
039582	POISON	81	TELLURIUM HEXA FLOURIDE
039584	POISON	84	PHOSPHOROUS PENTA FLOURIDE
039585	POISON	85	BORON TRI FLOURIDE
039505	POISON	91	MOLYBDENUM HEXA FLOURIDE
039490	POISON	82	SULFUR MONO FLOUR PENTA — FLOURIDE
039589	CORROSIVE	99	HYDROGEN CLORIDE
039590	"	9	" "
039514	POISON	95	MONOCLOROSULFER PENTA FLOURIDE
039596	POISON	87	TRI FLOURO ACETYL CHLORIDE
039594	"	88	HEXA FLOUROPROPYLENE
039595	"	92	" " " OXIDE
039642	POISON	101	IODO TRI FLOURO METHANE
039651	POISON	102	CHLOROTRI FLOURO ETHYLENE
039645	POISON	103	BROMO " " "
039648	POISON	104	HEXA FLOURO BUTYNE-2
039654	"	105	" " "
039657	"	106	ANTIMONY PENTA FLOURIDE
039658	"	120	ClF_3O Chlorine Oxytrifluoride
039636	"	113	F_3NO (RADIOACTIVE ?)

2039633	POISON	114	SULFUR OXY TETRA FLOURIDE
2039630	POISON	115	FLUORIDE ?
2039655	U	116	MOLYBDENUM HEXA FLOURIDE
2039652	CORROSIVE	117	TITANIUM TETRA CHLORIDE
2039649	POISON	118	TRIFLOUROMETHYL HYPO-FLUORATE
2039646	OXIDIZER	119	MONOCHLOROTRIFLOURO OXIDE
2039643	CORROSIVE	133	Hydrogen Fluoride HF
2039640	POISON ~~CORROSIVE~~	132	ClF_3 Chlorine trifluoride 2150
2039637	POISON	135	CESIUM FLOURIDE
2039659	POISON	137	BrF_5 Mg_5N_2 ✓
2039656	" see Poison	139	KF ✓ 7794 p. 1314
2039[illegible]	UNKNOWN	146	$F_{10}N_2$ ✓ N? Ni? ?
2039647	POISON	151	NITROGEN TRI FLOURIDE
2039650	CORROSIVE	150	TUNGSTEN HEXA FLOURIDE
2039644	OXIDIZER, FLUORONATING POISON	148	XeF_6 Xenon Hexafluoride 10206 p. 1721
2039641	POISON	149	MoF_6 Molybdenum Hex. 6319 p. 6325

bar code	WPF	ntainer Information					Waste Information				Description	CAS#	msds	Tag#	HAZCLASS	COMMENTS
		type	vol.	unit	tare wt	unit	vol.	unit	weight	unit						
2027631	25487	11	0.25	L	3	P	0.25	L	136	g	Air	0(none)	X	U-25		
2039465	25487	11	0.5	L	5	P	0.5	L	227	g	Hydrogen Iodide	10034-85-2	X	93	Corrosive	
2039499	25487	11	0.5	L	5	P	0.5	L	227	g	Hydrogen Bromide	10035-10-6	X	16	Corrosive	
2039498	25487	11	0.5	L	6	P	0.5	L	272	g	Hydrogen Bromide	10035-10-6	X	59	Corrosive	
2039476	25487	11	0.5	L	6	P	0.5	L	272	g	Nitrogen dioxide	10102-44-0	X	44		
2039570	25487	11	0.5	L	6	P	0.5	L	272	g	Boron trichloride	10294-34-5	X	48	Poison	
2039463	25487	11	0.5	L	5	P	0.5	L	227	g	Boron trichloride	10294-34-5	X	51	Poison	
2044710	25487	11	0.75	L	6	P	0.75	L	272	g	Nitrogen Oxide	10544-72-6	X	U-9		
2039464	25487	11	0.5	L	4	P	0.5	L	182	g	Butadiene	106-99-0	X	70	Flammable	
2039594	25487	11	1	L	4	P	1	L	182	g	Hexafluoropropylene	116-15-4	X	88	Poison	
2039595	25487	11	0.5	L	3	P	0.5	L	136	g	Hexafluoropropylene	116-15-4	X	92	Poison	
2044714	25487	11	0.25	L	3	P	0.25	L	136	g	Carbon dioxide	124-38-9	X	U-23		
2039593	25487	11	8	L	25	P	8	L	1135	g	Hydrogen	1333-74-0	X	U-31		Com.
2039480	25487	11	0.75	L	8	P	0.75	L	363	g	Cesium fluoride	13400-13-0	X	67	Poison	
2039602	25487	11	0.5	L	6	P	0.5	L	272	g	Cesium fluoride	13400-13-0	X	121	Poison	
2039637	25487	11	0.03	L	3	P	0.03	L	136	g	Cesium fluoride	13400-13-0	X	135	Poison	
2039448	25487	11	0.5	L	5	P	0.5	L	227	g	Nickel Carbonyl	13463-39-3	X	91	Poison	P073
2039642	25487	11	0.5	L	3	P	0.5	L	136	g	Iodotrifluoromethane	2314-97-8	X	101	Poison	
2039597	25487	11	0.25	L	4	P	0.25	L	182	g	Nitrosyl Chloride	2696-2-6	X	107	Poison	
2039483	25487	11	0.75	L	7	P	0.75	L	318	g	Sulfuryl Fluoride	2699-79-8	X	2		
2039452	25487	11	0.5	L	4	P	0.5	L	182	g	Trifluoronitrosomethane	334-99-6	X	58		
2039469	25487	11	0.75	L	3	P	0.75	L	136	g	Carbonyl fluoride	353-50-4	X	36	Poison	U 033
2039576	25487	11	0.75	L	7	P	0.75	L	100	G	Carbonyl fluoride	353-50-4	X	38	Poison	100g net U 033
2039468	25487	11	0.75	L	7	P	0.75	L	318	g	Carbonyl fluoride	353-50-4	X	61	Poison	U 033
2039600	25487	11	0.5	L	5	P	0.5	L	227	g	Carbonyl fluoride	353-50-4	X	110	Poison	U 033
2044713	25487	11	0.75	L	5	P	0.75	L	227	g	Carbonyl fluoride	353-50-4	X	U-10	Poison	U 033
2039454	25487	11	0.5	L	5	P	0.5	L	227	g	Pentafluoroethane	354-33-6	X	31		
2039453	25487	11	0.5	L	5	P	0.5	L	227	g	Trifluoroethylene	359-11-5	X	57		
2039492	25487	11	0.75	L	6	P	0.75	L	272	g	Oxalyl fluoride	359-40-0	X	43		
2039488	25487	11	0.75	L	5	P	0.75	L	227	g	Trifluoromethylhypofluorite	373-91-1	X	60	Corrosive	
2039649	25487	11	0.25	L	4	P	0.25	L	182	g	Trifluoromethylhypofluorite	373-91-1	X	118	Corrosive	
2039611	25487	11	1	L	10	P	1	L	454	g	Trifluoromethylhypofluorite	373-91-1	X	130	Corrosive	
2039446	25487	11	1	L	5	P	1	L	227	g	Cyanogen gas	460-19-5	X	90	Flammable	
2039598	25487	11	0.25	L	3	P	0.25	L	136	g	Carbonyl sulfide	463-58-1	X	108	Poison	
2039581	25487	11	0.5	L	6	P	0.5	L	272	g	Cyanogen chloride	506-77-4	X	72	Poison	P 033
2039447	25487	11	1	L	8	P	1	L	363	g	Cyanogen chloride	506-77-4	X	89	Poison	P 033
2039588	25487	11	0.5	L	5	P	0.5	L	227	g	Cyanogen chloride	506-77-4	X	100	Poison	P 033
2039509	25487	11	0.5	L	5	P	0.5	L	227	g	Sulfur pentafluoride	5714-22-7	X	47		
2039491	25487	11	0.75	L	7	P	0.75	L	318	g	Disulfur Decafluoride	5717-22-7	X	6	Poison	
2039506	25487	11	0.75	L	7	P	0.75	L	318	g	Disulfur Decafluoride	5717-22-7	X	12	Poison	
2039573	25487	11	0.5	L	5	P	0.5	L	227	g	Cis-2-butene	590-18-1	X	66		Need more info
2039603	25487	11	0.75	L	10	P	0.75	L	454	g	Dimethyl Selenide	593-79-3	X	122		
2039645	25487	11	0.5	L	3	P	0.5	L	136	g	Bromotrifluoroethylene	598-73-2	X	103	Flammable	
2039605	25487	11	0.5	L	7	P	0.5	L	318	g	Hexafluoroacetone	684-16-2	X	124		
2039648	25487	11	0.5	L	2	P	0.5	L	91	g	Hexafluorobutyne-2	692-50-2	X	104		Need more info (benzene)
2039654	25487	11	0.5	L	2	P	0.5	L	91	g	Hexafluorobutyne-2	692-50-2	X	105		Need more info

2039572	25487	11	0.5	L	5	P	0.5	L	227	g	Hexafluorocyclobutene	697-11-0	X	13	Poison	
2039451	25487	11	0.5	L	4	P	0.5	L	182	g	Hexafluorocyclobutene	697-11-0	X	64	Poison	
2039604	25487	11	0.25	L	3	P	0.25	L	136	g	Methyl Mercaptan	74-93-1	X	123	Poison	
2039616	25487	11	3	L	10	P	3	L	454	g	Cesium metal	7440-46-2	X	143		Need more info
2039614	25487	11	0.25	L	4	P	0.25	L	182	g	Sulfur Trioxide	7446-11-9	X	141	Corrosive	D002 ?
2039466	25487	11	0.5	L	5	P	0.5	L	227	g	Cyclopropane	75-19-4	X	49	Flammable	D001 ?
2039802	25487	11	0.25	L	5	P	0.25	L	227	g	Fluoroform	75-46-7	X	U-24		
2039470	25487	11	0.75	L	5	P	0.75	L	227	g	Bromotrifluoromethane	75-63-8	X	41		
2039471	25487	11	0.75	L	5	P	0.75	L	227	g	Bromotrifluoromethane	75-63-8	X	42		
2039459	25487	11	0.5	L	4	P	0.5	L	182	g	Bromotrifluoromethane	75-63-8	X	62		
2039591	25487	11	10	L	30	P	10	L	1362	g	Chlorotrifluoromethane	75-72-9	X	U-29		Com.
2039592	25487	11	10	L	30	P	10	L	1362	g	Chlorotrifluoromethane	75-72-9	X	U-30		Com.
2039652	25487	11	0.025	L	2	P	0.01	L	10	g	Titanium Tetrachloride	7550-45-0	X	117	Corrosive	10ml liquid D002?
2039458	25487	11	0.5	L	5	P	0.5	L	227	g	Hexafluorethane	76-16-4	X	52		Need more info
2039658	25487	11	0.5	L	5	P	0.5	L	227	g	Chlorine Oxytrifluoride	7616-94-6	X	120		
2039578	25487	11	0.5	L	3	P	0.5	L	136	g	Perchlorofluoride	7616-94-6	X	77	Poison	
2039585	25487	11	0.5	L	4	P	0.5	L	182	g	Boron trifluoride	7637-07-2	X	85	Poison	
2039599	25487	11	0.25	L	5	P	0.25	L	227	g	Boron trifluoride	7637-07-2	X	109	Poison	
2039623	25487	11	4	L	10	P	4	L	454	g	Boron trifluoride	7637-07-2	X	154	Poison	comm.
2044718	25487	11	0.75	L	4	P	0.75	L	182	g	Boron trifluoride	7637-07-2	X	U-18	Poison	
2039590	25487	11	0.5	L	6	P	0.5	L	272	g	Hydrogen Chloride	7647-01-0	X	9	Corrosive	D002?
2039587	25487	11	0.5	L	5	P	0.5	L	227	g	Hydrogen Chloride	7647-01-0	X	45	Corrosive	D002?
2039589	25487	11	0.5	L	6	P	0.5	L	272	g	Hydrogen Chloride	7647-01-0	X	99	Corrosive	D002 ?
2039615	25487	11	0.025	L	2	P	0.025	L	91	g	Antimony pentachloride	7647-18-9	X	142	Poison	
2039472	25487	11	0.5	L	7	P	0.5	L	318	g	Phosphorus pentafluoride	7647-19-0	X	30	Poison	
2039460	25487	11	0.5	L	3	P	0.5	L	136	g	Phosphorus pentafluoride	7647-19-0	X	55	Poison	
2039584	25487	11	0.5	L	5	P	0.5	L	227	g	Phosphorus pentafluoride	7647-19-0	X	84	Poison	
2039512	25487	11	0.5	L	3	P	0.5	L	136	g	Hydrogen Fluoride	7664-39-3	X	14	Poison	U134
2039643	25487	11	2	L	15	P	2	L	681	g	Hydrogen Fluoride	7664-39-3	X	133	Poison	U134
2039625	25487	11	8	L	25	P	8	L	1135	g	Hydrogen Fluoride	7664-39-3	X	152	Poison	comm. U134
2039612	25487	11	0.025	L	2	P	0.01	L	10	G	Thionyl chloride	7719-09-7	X	131	Poison	10ml liquid
2039630	25487	11	0.25	L	1.5	P	0.25	L	68	g	Fluorine	7782-41-4	X	115	Poison	P056
2039608	25487	11	1	L	10	P	1	L	454	g	Chlorine	7782-50-5	X	127	Poison	
2039461	25487	11	0.5	L	5	P	0.5	L	227	g	Hydrogen sulfide	7783-06-4	X	53		U135
2044712	25487	11	0.25	L	5	P	0.25	L	227	g	Selenium hydride	7783-07-5	X	U-13		
2039493	25487	11	0.5	L	7	P	0.5	L	318	g	Arsenic pentafluoride	7783-36-3	X	7	Poison	
2039494	25487	11	0.5	L	6	P	0.5	L	272	g	Arsenic Pentafluoride	7783-36-3	X	10	Poison	
2039574	25487	11	0.5	L	5	P	0.5	L	227	g	Arsenic pentafluoride	7783-36-3	X	54	Poison	
2039462	25487	11	0.5	L	7	P	0.5	L	318	g	Arsenic pentafluoride	7783-36-3	X	74	Poison	
2039624	25487	11	6	L	15	P	6	L	681	g	Oxygen difluoride	7783-41-7	X	153	Poison	comm.
2039647	25487	11	0.5	L	8	P	0.5	L	363	g	Nitrogen Trifluoride	7783-54-2	X	151	Poison	
2039575	25487	11	0.5	L	5	P	0.5	L	227	g	Phosphorus trifluoride	7783-55-3	X	11	Poison	
2039467	25487	11	0.75	L	10	P	0.75	L	454	g	Phosphorus trifluoride	7783-55-3	X	46	Poison	
2039482	25487	11	0.5	L	5	P	0.5	L	227	g	Phosphorus trifluoride	7783-55-3	X	73	Poison	
2039586	25487	11	0.5	L	3	P	0.5	L	136	g	Phosphorus Trifluoride	7783-55-3	X	98	Poison	
2039510	25487	11	0.5	L	5	P	0.5	L	227	g	Germanium tetrafluoride	7783-58-6	X	32		
2039474	25487	11	0.5	L	5	P	0.5	L	227	g	Sulfur Tetrafluoride	7783-60-0	X	37	Poison	
2039606	25487	11	0.5	L	4	P	0.5	L	182	g	Sulfur Tetrafluoride	7783-60-0	X	125	Poison	

2039607	25487	11	0.75	L	6	P	0.75	L	272	g	Sulfur Tetrafluoride	7783-60-0	X	126	Poison	
2039489	25487	11	0.5	L	6	P	0.5	L	272	g	Silicon Fluoride	7783-61-1	X	68	Corrosive	D002?
2039610	25487	11	1	L	10	P	1	L	454	g	Silicon Fluoride	7783-61-1	X	129	Corrosive	D002?
2039507	25487	11	0.5	L	4	P	0.5	L	182	g	Antimony pentafluoride	7783-70-2	X	97	Poison	
2039657	25487	11	0.5	L	4	P	0.5	L	182	g	Antimony pentafluoride	7783-70-2	X	106	Poison	
2039508	25487	11	0.5	L	6	P	0.5	L	500	G	Molybdenum Hexafluoride	7783-77-9	X	35	Poison	500g net, type A cylinder
2039505	25487	11	0.5	L	7	P	0.5	L	318	g	Molybdenum Hexafluoride	7783-77-9	X	94	Poison	
2039655	25487	11	0.025	L	3	P	0.025	L	136	g	Molybdenum Hexafluoride	7783-77-9	X	116	Poison	
2039641	25487	11	0.5	L	8	P	0.5	L	363	g	Molybdenum Hexafluoride	7783-77-9	X	149	Poison	
2039583	25487	11	0.5	L	6	P	0.5	L	272	g	Selenium Hexafluoride	7783-79-1	X	86	Poison	
2039497	25487	11	0.5	L	7	P	0.5	L	318	g	Tellurium Hexafluoride	7783-80-4	X	5	Poison	
2039582	25487	11	0.5	L	6	P	0.5	L	454	G	Tellurium Hexafluoride	7783-80-4	X	81	Poison	1# net
2039513	25487	11	0.5	L	4	P	0.5	L	182	g	Tungsten Hexafluoride	7783-82-6	X	71	Corrosive	
2039650	25487	11	0.5	L	6	P	0.5	L	272	g	Tungsten Hexafluoride	7783-82-6	X	150	Corrosive	
2039580	25487	11	0.5	L	6	P	0.5	L	100	G	Aresenic trifluoride	7784-35-2	X	80	Poison	100g net
2039501	25487	11	0.5	L	7	P	0.5	L	318	g	Bromine trifluoride	7787-71-5	X	1	Corrosive	
2039477	25487	11	0.5	L	6	P	0.5	L	272	g	Bromine trifluoride	7787-71-5	X	69	Corrosive	
2039495	25487	11	0.5	L	6	P	0.5	L	272	g	Bromine trifluoride	7787-71-5	X	76	Corrosive	
2039479	25487	11	0.5	L	6	P	0.5	L	272	g	Bromine trifluoride	7787-71-5	X	96	Corrosive	
2039656	25487	11	0.5	L	6	P	0.5	L	272	g	Potassium fluoride	7789-23-3	X	139	Posion	
2039511	25487	11	0.5	L	3	P	0.5	L	136	g	Bromine pentafluoride	7789-30-2	X	34	Poison	
2039504	25487	11	0.5	L	3	P	0.5	L	136	g	Bromine pentafluoride	7789-30-2	X	79	Poison	
2039609	25487	11	0.25	L	3	P	0.25	L	136	g	Bromine pentafluoride	7789-30-2	X	128	Poison	
2039473	25487	11	0.75	L	5	P	0.75	L	227	g	Chlorine monofluoride	7790-89-8	X	40		
2039640	25487	11	1	L	10	P	1	L	454	g	Chlorine trifluoride	7790-91-2	X	132	Poison	
2039621	25487	11	4	L	11	P	4	L	2270	G	Chlorine trifluoride	7790-91-2	X	145	Poison	5# net, comm.
2039622	25487	11	4	L	10	P	4	L	454	g	Chlorine trifluoride	7790-91-2	X	147	Poison	comm.
2039628	25487	11	4	L	15	P	4	L	681	g	Chlorine trifluoride	7790-91-2	X	157	Poison	
2044711	25487	11	0.25	L	3	P	0.25	L	136	g	Silane	7803-62-5	X	U-2		
2039651	25487	11	0.5	L	4	P	0.5	L	182	g	Chlorotrifluoroethylene	79-38-9	X	102	Poison	
2039457	25487	11	0.5	L	5	P	0.5	L	227	g	Chlorotrifluoroethylene	79-38-9	X	50	Poison	
bar code	WPF	ntainer Information					Waste Information				Description	CAS#	msds	Tag#	HAZCLASS	COMMENTS
		type	vol.	unit	tare wt	unit	vol.	unit	weight	unit						
2039571	25487	11	0.75	L	7	P	0.75	L	318	g	Bis(trifluorimethyl)disulfide	372-64-6	X	33	Poison	
2039455		11	0.5	L	4	P	0.5	L	182	g	Cyanopentafluoroethane	422-04-8	need	63		Need more info
2039456		11	0.5	L	6	P	0.5	L	272	g	Cyanotrifluoromethane	need	need	56		Need more info
2039636		11	0.05	L	2	P	0.05	L	91	g	Trifluoramine oxide	13847-65-9	need	113		Radioactive tape
2039617		11	1	L	15	P	1	L	681	g	Potassium hexafluoronickelate	14881-07-3	need	134	Poison	
2039646		11	0.25	L	3	P	0.25	L	136	g	Chlorine trifluoro oxide (ClF3O)	30708-80-6	need	119	Oxidizer	D003?
2039514		11	0.75	L	8	P	0.75	L	363	g	Sulfur monochloro pentaflu	13780-57-9	need	95	Poison	
2039618		11	0.025	L	2	P	0.005	L	3	G	NaCl & ClF3	need	need	136	Poison	5ml powder
2039496		11	0.5	L	4	P	0.5	L	182	g	Phosphorus Oxyfluoride	82867-95-6	need	78	Poison	
2039613		11	0.5	L	5	P	0.5	L	227	g	Phosphoryl trifluoride	13478-20-1	need	140	Poison	
2039633		11	0.5	L	6	P	0.5	L	272	g	Sulfur Oxytetrafluoride	13709-54-1	need	114	Poison	
2039490		11	0.75	L	6	P	0.75	L	272	g	Sulfurmonochloropentafluoride	13780-57-9	need	82		
2039577		11	0.5	L	6	P	0.5	L	272	g	Trifluoroacetyl fluoride	354-34-7	need	75	Poison	
2039596		11	0.5	L	3	P	0.5	L	136	g	Trifluoroacetyl chloride	354-32-5	info	87	Poison	
2039600		11	0.5	L	5	P	0.5	L	227	g	3-Trifluoropropyne	661-54-1		4		

2044719		11	0.5	L	4	P	0.5	L	182	g	BF3 (+ SIF4)	7637-07-2	XX	U-17		(7783-61-1)
2039659		11	0.25	L	3	P	0.25	L	136	g	BrF5 (+ Mg3N2)			137		Need more Infor
2039579		11	0.5	L	5	P	0.5	L	50	G	Carbonyl chlorofluoride	353-49-1		83		50g net, Need info
2044716		11	0.75	L	6	P	0.75	L	272	g	CHF3 (or CF4)	75-46-7	XX	U-20		(75-73-0)
2039639		11	0.25	L	4	P	0.25	L	182	g	Chlorine trifluoro oxide (ClF3O)	30708-80-6	need	112		check spelling
2039798		11	2	L	12	P	2	L	545	g	NF3 (or NF5)	7783-54-2	X	U-33	(or 13706-13-3)	rad sticker on cylinder, DOT
2039619		11	1	L	12	P	1	L	545	g	Sample cylinder			138		
2039620		11	0.025	L	1	P	0.025	L	45	g	Sample cylinder			144		
2039799		11	0.1	L	2	P	0.1	L	91	g	see data			U-21		
2039800		11	0.5	L	5	P	0.5	L	227	g	see data			U-22		
2039475		11	0.75	L	7	P	0.75	L	318	g	Sulfur dichlorodifluoride			39		
2039503		11	0.5	L	4	P	0.5	L	182	g	Thionyl fluoride			3		
2039478		11	0.5	L	4	P	0.5	L	182	g	Thionyl fluoride			8		
2044715		11	0.75	L	6	P	0.75	L	272	g	Trifluoro acetyl fluoride			U-26		
2039450		11	0.5	L	5	P	0.5	L	227	g	Trifluoroacetonitrile	353-85-5		65		
2039601	25487	11	1	L	10	P	1	L	454	g	Nitryl fluoride (FNO2)	10022-50-1	info	111	Poison	
2039662	rad	11	12	L	35	P	12	L	1589	g	Deuterated Methane	74-82-8	X	155	Radioactive?	See if Gene Maroz wants?
2065130	25487	11	0.75	L	4	P	0.75	L	182	g	tetrachlorodifluoroethane	76-12-0	X	U-34		Where is it?
2044717	rad	11	2	L	20	P	2	L	908	g	Uranium hexafluoride	7783-81-5	X	U-11	Radioactive	radioactive
2039782		11		L		P					unknown, unlabeled cylinder			U-3	empty	
2039775		11	1	L	8	P					unknown, unlabeled cylinder			U-4	empty	
2039774		11	0.05	L	2	P					unknown, unlabeled cylinder			U-5	empty	
2039786		11	1	L	11	P					unknown, unlabeled cylinder			U-6	empty	
2039776		11	1	L	7	P					unknown, unlabeled cylinder			U-7	empty	
2039785		11	0.75	L	3	P					unknown, unlabeled cylinder			U-8	empty	
2039781		11	0.75	L	3	P					unknown, unlabeled cylinder			U-12	empty	
2039779		11	0.5	L	3	P					unknown, unlabeled cylinder			U-14	empty	
2039780		11	0.5	L	3	P					unknown, unlabeled cylinder			U-15	empty	
2039778		11	0.5	L	2	P					unknown, unlabeled cylinder			U-16	empty	
2039777		11	0.5	L	3	P					unknown, unlabeled cylinder			U-19	empty	
2039784		11	0.5	L	3	P					unknown, unlabeled cylinder			U-27	empty	
2039787		11	1	L	7	P					unknown, unlabeled cylinder			U-28	empty	
2039627	25539	11	0.75	L	5	P	0.75	L	227	g	Oxygen Isotopic	need	need	156	empty	O-18 gas
2039801		11	1	L	10	P					unknown, unlabeled cylinder			U-32	empty	
2039671											Hydrogen chloride					
2039670											Chlorine					
2039660											Oxygen difluoride					
2039631											CMF (1237)					
2039667											Ammonia					
2039664											Carbon dioxide					
2039688											Hydrogen fluoride					
2039629											Carbon dioxide					
2039665											Hydrogen fluoride					
2039666											Bromine pentafluoride					
2039669											Chlorine					
2039672											Chlorine (UN1017)					
2039673											CO, CO2, & H mixture					
2039653		11	0.5	L	4	P				g	15N2	need	need	146	Unknown	

2039752		11	0.75	L	~7	P	0.75	L			osmium tetrafluoride/hexafluoride					P087
		11	0.75	L	~7	P	0.75	L			osmium tetrafluoride/hexafluoride					P087
		11	0.75	L	~7	P	0.75	L			osmium tetrafluoride/hexafluoride					P087
		11	0.75	L	~7	P	0.75	L			osmium tetrafluoride/hexafluoride					P087
		11	0.75	L	~7	P	0.75	L			osmium tetrafluoride/hexafluoride					P087