

Jeb Bush
Governor

Department of Environmental Protection

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

David B. Struhs
Secretary

PERMIT DATA FORM DATE: April 19, 2001

PROJECT SOURCE NAME Eglin AFB

TYPE CODE H0 SUBCODE _____

CORRECT FEE _____

AMOUNT RECEIVED 15,000.00

AMOUNT REFUND _____

PROCESSOR B. Kellenberger

COMMENTS:

OBSCord 2234

6176

PERMIT APPLICATION SITE NUMBER H046-006176-003

WAER SITE NUMBER _____

ARMS SITE NUMBER _____

CASH RECEIVING RECEIPT NUMBER 350762 + 350768

CHECK REMITTED BY: DFAS - Eglin

CHECK# 630037 + 619010



350762
350768

HO46-006176-003

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR ARMAMENT CENTER (AFMC)
EGLIN AIR FORCE BASE, FLORIDA

APR 17 2001

Thomas M. Paris
Chief, Environmental Compliance
501 DeLeon Street suite 101
Eglin AFB FL 32542-5133

Mr. William E. Kellenberger
Hazardous Waste Section
Florida Department of Environmental Protection
160 Governmental Center
Pensacola FL 32501

Dear Mr. Kellenberger

Eglin Air Force Part B, RCRA Permit # HO46-286388 expires September 1, 2001. Renewal is required 135 days prior to its expiration. The attachments provide the required documents and checks to effect that renewal. Attachment 1 is the required fee in the form of two checks totaling \$15,000. Changes to the permit are contained in attachment 2 as replacement pages to the permit application. A completed Application for a Hazardous Waste Facility Permit Certification (DEP Form 62-730.900(2)(d)) is provided as attachment 3.

If you have any questions, contact Mr. Ed O'Connell, AAC/EMCP, (850) 882-6282, ext 326.

Sincerely,

THOMAS M. PARIS, GM-13

Attachments:

1. Renewal fee
2. Replacement Pages
3. Completed Application

cc:

Mr. Doug McCurry
Mr. Satish Kastury

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APR 19 2001

NORTHWEST FLORIDA
DEP

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**APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT
CERTIFICATION
TO BE COMPLETED BY ALL APPLICANTS**

Facility Name: Eglin Air Force Base EPA ID# FL8570024366

1. Operator

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, I agree to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department of Environmental Protection. It is understood that the permit is only transferable in accordance with Chapter 62-730, F.A.C., and, if granted a permit, the Department of Environmental Protection will be notified prior to the sale or legal transfer of the permitted facility.



Signature of the Operator or Authorized Representative*

Colonel Quincy D. Purvis Base Civil Engineer

Name and Title (Please type or print)


Date: 18 APR 2001 Telephone: (850) 882-2876

*Attach a letter of authorization

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2. Facility Owner

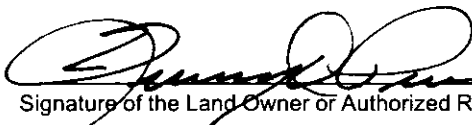
This is to certify that I understand this application is submitted for the purpose of obtaining a permit to construct, operate, or close a hazardous waste management facility on the property as described. As owner of the facility, I understand fully that the facility operator and I are jointly responsible for compliance with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department of Environmental Protection.


 Signature of the Facility Owner or Authorized Representative*
 Major General Michael C. Kostelnik, AAC Commander
 Name and Title (Please type or print)
 Date: 19 Apr 01 Telephone: (850) 882-5422

*Attach a letter of authorization

3. Land Owner

This is to certify that I, as land owner, understand that this application is submitted for the purpose of obtaining a permit to construct, operate, or close a hazardous waste management facility on the property as described. For hazardous waste disposal facilities, I further understand that I am responsible for providing the notice in the deed to the property required by 40 CFR §264.119 and §265.119, as adopted by reference in Chapter 62-730, F.A.C.


 Signature of the Land Owner or Authorized Representative*
 Colonel Quincy D. Purvis Base Civil Engineer
 Name and Title (Please type or print)
 Date: 18 APR 2001 Telephone: (850) 882-2876

*Attach a letter of authorization

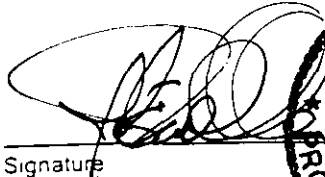
Revision Number 5

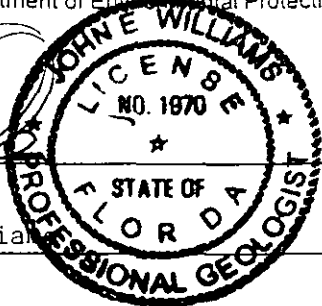
Date April 2001

Page 4 of 4

5. Professional Geologist Registered in Florida [Complete when required by Chapter 492, F.S. or not exempted by Rule 62-730.220(8), F.A.C.]

This is to certify that the interpretations of geology at this hazardous waste management facility have been examined by me, and the interpretations conform to sound geological principles. In my professional judgement, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and the rules of the Department of Environmental Protection.


Signature



John E. Williams

Name (please type)

Florida Registration Number 1970

Mailing Address: 1766 Sea Lark Lane

Street or P.O. Box

Navarre

Florida

32566

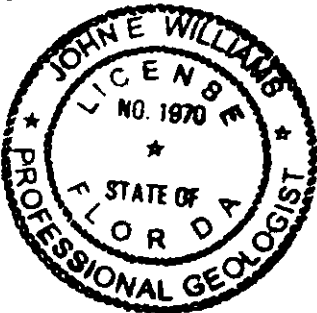
City

State

Zip

Date 11 APR 2001 Telephone (850) 939-8300 Ext. 13

[PLEASE AFFIX SEAL]



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Date	04/11/2001
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4. Professional Engineer Registered in Florida [Complete when required by Chapter 471, F.S. or not exempted by Rule 62-730.220(7), F.A.C.]

This is to certify that the engineering features of this hazardous waste management facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and rules of the Department of Environmental Protection.


 Signature

Christopher C. Hood, P.E.
 Name (please type)

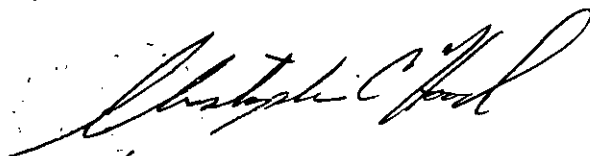
Florida Registration Number: No. 053927

Mailing Address: 1766 Sea Lark Lane
 Street or P.O. Box

Navarre	FL	32566
City	State	Zip

Date: 12 Apr 01 Telephone: (850) 939-8300

[PLEASE AFFIX SEAL]


 4/17/01



United States Treasury



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Check No.

12 05 00

DFAS DENVER, CO

6671-40,619,010

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Pay to
the order of

00184
THE FLORIDA DEPARTMENT OF ENVIRON-
MENTAL PROTECTION
501 DELEON ST SUITE 101
EGLIN AFB FL 32542-5133

****10000.00

VOID AFTER ONE YEAR

TEN THOU DOLLARS AND NO CENTS

[Signature]

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United States Treasury



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Check No.

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DFAS DENVER, CO

6671-40,630,037

DN00054422 000

Pay to
the order of

00026
THE FLORIDA DEPARTMENT OF ENVIRON-
MENTAL PROTECTION
501 DELEON ST SUITE 101
EGLIN AFB FL 32542-5133

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VOID AFTER ONE YEAR

FIVE THOU DOLLARS AND NO CENTS

[Signature]

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EGLIN AFB OB/OD RESIDUE MANAGEMENT PLAN

For the purpose of this plan, "residue" generated at open burning and open detonation (OB/OD) activities includes:

- ash contained in the OB containment device
- metallic fragments containing energetic materials located in the OB containment device
- large metallic fragments not containing energetic materials located in the OB containment device
- large metallic fragments from the OB containment device or remaining at the OD area after detonation
- large metallic fragments not containing partially burned/detonated energetic materials which have been ejected from the OB containment device or remaining at the OD area

1. OB ACTIVITIES

1.1 GENERAL

The OB containment device shall not be approached after a burn is conducted to ensure the burn is completed and the residue has cooled, as determined by EOD personnel. Not later than 24 hours after the burn occurs, residue management procedures shall be implemented.

1.2 GENERAL RESIDUE COLLECTION PROCEDURES

- 1.2.1 Residues within the containment device shall be inspected to ensure all items have been successfully burned. Items remaining in the containment device still containing energetic materials shall be retreated by OB the day they are discovered.
- 1.2.2 If no energetic materials are visible within the containment device, residues shall be removed from the device. Metal fragments, shell casings, etc., shall be separated from the ash. Metallic objects shall be placed in one compatible container, and ash shall be tightly closed to prevent spillage, and labeled to include contents (i.e., OB ash, OB Metal Fragments, etc.), date of generation, and number of containers (i.e., 1 of 2).

- 1.2.3 The vicinity of the containment device shall be inspected for any items which may have been ejected from the device. Items still containing energetic materials shall be placed back into the containment device for burning that day. Large metallic items not containing energetic materials shall be placed in the OB metal fragments container.

1.3 OB ASH

- 1.3.1 A representative sample of the ash shall be tested for reactivity, toxicity characteristic leaching procedure (TCLP) metals, and TCLP 2,4-dinitrotoluene (2,4-DNT) content to determine if it is a toxic hazardous waste. EOD personnel shall then complete AF Form 191, "Ammunition Disposition Request" and EPA form 8700 22, "Uniform Hazardous Waste Manifest", if applicable, and submit them to BEE, thereby informing EAFB environmental personnel that OB ash not containing explosives has been generated.
- 1.3.2 EOD personnel shall remove the residue from the burn kettle and containerize it in 55-gal drums. Representative samples shall be collected and analyzed for all eight TCLP metals and 2,4-DNT. EOC personnel shall seal the drums and mark them with the date of the operation and AFTO Form 3587 unit control number.
- 1.3.3 If no TCLP hazardous waste levels are exceeded, the container shall be buried in the approved on base facility.
- 1.3.4 If at least one TCLP hazardous waste level is exceeded, the residue shall be disposed offsite through DRMO in accordance with hazardous waste disposal regulations.

1.4 METALLIC FRAGMENTS FROM OB OPERATIONS CONTAINING ENERGETIC MATERIALS

- 1.4.1 When metallic fragments containing energetic materials remain in the OB container following an OB operation, they shall be retained in the container and returned that day.
- 1.4.2 When metallic fragments containing energetic materials are ejected from the container during a burn, they shall be collected, returned to the container, and returned that day.

1.5 LARGE METALLIC FRAGMENTS FROM OB OPERATIONS NOT CONTAINING ENERGETIC MATERIALS

Larger metallic fragments not containing energetic material, regardless of whether they have been discovered in the OB containment device or have been ejected, shall be collected and accumulated for shipment to the Defense Reutilization Marketing Office (DRMO) to facilitate recycle.

2. OD ACTIVITIES

- 2.1 The OD area shall not be approached until the area is declared safe for entrance. This shall generally be within one hour of completion of demolition activities.
- 2.2 The OD area shall be inspected for any items which may remain after detonation. Items still containing energetic materials shall either be placed into the OB containment device for burning that day or shall be detonated that day.
- 2.3 Large metallic fragments not containing energetic materials shall be collected and accumulated for shipment to the DRMO to facilitate recycling.

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RFA	RCRA Facility Assessment
RICS	Products of Incomplete Combustion
RI/FS	Remedial Investigation/Feasibility Study (CERCLA)
ROCC	Range Operations Control Center
RQ	Reportable Quantity

SLAMS	State and Local Air Monitoring Stations
SOI	Squadron Operating Instruction
SOP	Standard Operating Procedure
SPCC	Spill Prevention, Containment, and Countermeasures
SWMU	Solid Waste Management Unit

TBKP	Transportable Burn Kettle Processor
TCLP	Toxicity Characteristic Leaching Procedure
TD	Test Directive
TDS	Total Dissolved Solids
TNT	2,4,6-Trinitrotoluene
TO	Technical Order
TPH	Total Petroleum Hydrocarbons
TSDF	Treatment, Storage, and Disposal Facility
TSS	Total Suspended Solids

ug/L	Micrograms per Liter
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USAF	United States Air Force
USEPA	United States Environmental Protection Agency
UXO	Unexploded Ordnance

II.A1.7 Engineering Drawings

The OB treatment units located on Range C-62 will consist of steel burn kettles constructed by El Dorado Engineering, Inc., of Salt Lake City, Utah. Engineering drawings of the burn kettles are presented in Appendix B. Figure II-6 provides cross-sectional "as-built" details of the burn kettles. Figure II-7 is a plan view of the Range C-62 OB area.

There are no structures for the OD treatment units; therefore, no engineering drawings are presented.

II.A1.8 Specification of all Wastes that have been Managed at the Treatment Unit

Wastes treated by OB include small arms ammunition, medium caliber target practice cartridges (20-40 mm), flares, and CAD/PAD. These items are classified as hazardous due to reactivity waste characteristics.

Wastes treated by OD at Range C-62 include conventional bombs, large caliber projectiles, mines, rockets, fuses, and bulk explosives. These items are also classified as hazardous due to reactivity.

Wastes treated by OD at Ranges C-52N and C-62 include experimental explosives designed and generated by the HERD. These items are primarily classified as hazardous due to reactivity. All HERD items treated by OD at EAFB are manifested by HERD and classified prior to acceptance for OD.

A generator requesting disposal of munitions items by either OB or OD must use AF Form 191, Ammunition Disposition Request. EAFB EOD personnel review the AF Form 191s to determine which materials can be accepted for OB or OD, in accordance with procedures described in Section III.A1 and III.A3. Only munitions, explosives, and explosives-contaminated items are accepted for disposal.

II.A1.9 Wind Rose

Annual and seasonal wind roses from Station 722210 at EAFB are provided as Figures II-8A through II-8E. Discussion of climatological/meteorological considerations on OB/OD operations and potential receptors is provided in Section III.C.

II.A1.10 General Dimensions and Structural Description

The OB activities will be conducted in rectangular steel burn kettles within a Transportable Burn Kettle Processor (TBKP). The 6 burn kettles are approximately 6' long, 4' wide, and 2' high. The sides and bottom are constructed of 3/8" low carbon steel. Structural support is provided by angle steel, I beams, and steel plate. Figure II-6 illustrates the design of the burn kettles. The TBKP is mounted on a flat bed, semi-truck bed. The TBKP is described in Appendix B.

OD activities do not utilize any type of treatment units. Detonation occurs in existing craters on a cleared 100 x 200 ft area of land. The existing craters, artifacts from previous detonations, vary in dimension from 6 x 6 x 3 ft deep to 20 x 50 x 6 ft deep, based on the number and size of ordnance items to be detonated.

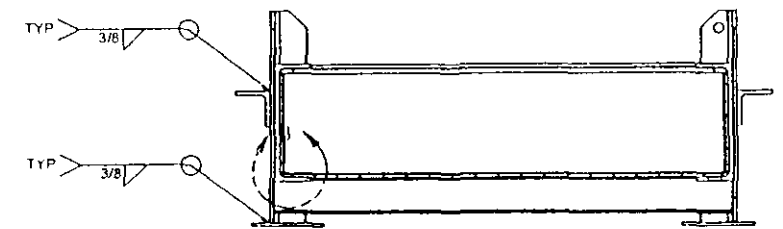
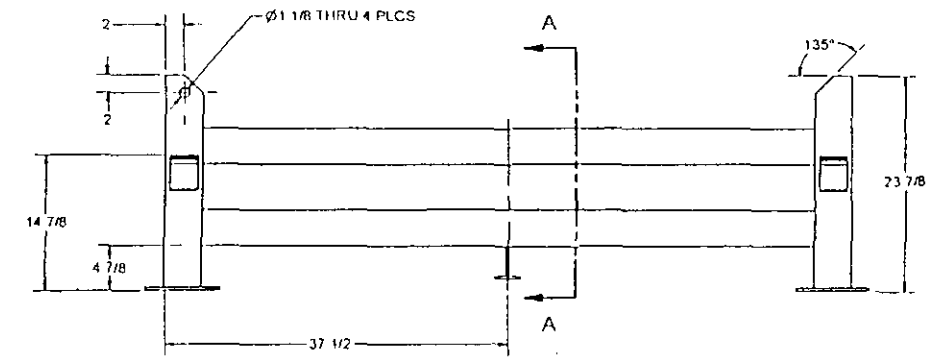
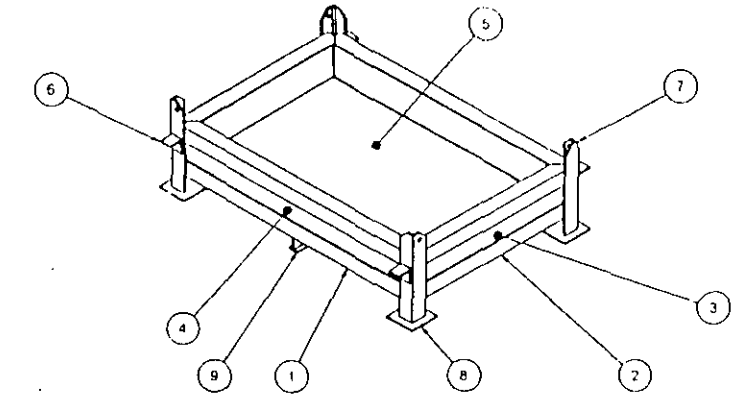
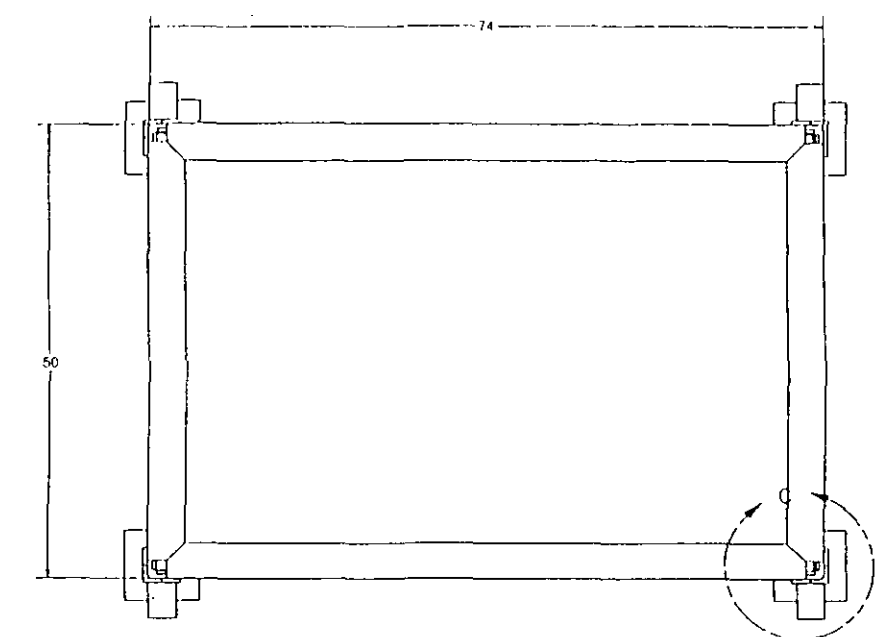
II. A2 TOPOGRAPHIC DESCRIPTION [40 CFR 270.14(b)(19)]

In order to present location and topographic information, as well as the location of other required items regarding the OB/OD units in Ranges C-52N and C-62, a series of maps are presented in this section. EAFB is generally topographically situated higher along the northern base boundaries and falls off to sea level at the southern boundary along Choctawhatchee Bay.

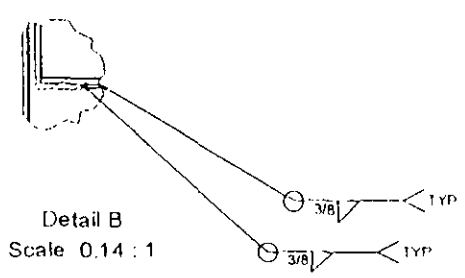
II.A2.1 Topography of Ranges C-62 and C-52N

Range C-52N, as illustrated in Figure II-4, climbs from approximately 100 ft mean sea level (MSL) along the north and east borders of the range to an elevation of 150 ft MSL in the middle of the range at the headwaters of the Bay Head and Coon Head branches of Basin Creek. The OD unit is located in the middle of the range between these branches of Basin Creek. The western boundary, the location of Middle Creek's headwaters, is also at an elevation of 150 ft. MSL. The range generally slopes downward to the south, reaching an elevation of 100 ft. MSL at its southern boundary. From the southern boundary, elevation continuously decreases to sea level at Choctawhatchee Bay, 2 mi. to the south. The areal extent of active mission use on Range C-52N is illustrated in Figure II-9, with a radius of 1,000 ft surrounding the OD unit. The OD unit is a 200 x 100 ft area consisting of a number

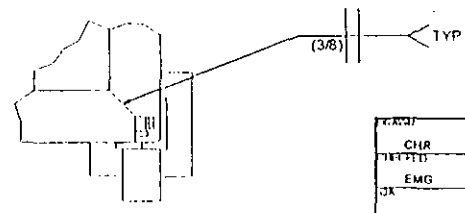
Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	LONG RAIL	ANGLE, STEEL, 4" x 4" x 1/2" x 70" L
2	4	SHORT RAIL	ANGLE, STEEL, 4" x 4" x 1/2" x 46" L
3	2	SHORT SIDE	PLATE, MILD STEEL, 11" x 48" x 3/8" THK
4	2	LONG SIDE	PLATE, MILD STEEL, 11" x 72" x 3/8" THK
5	1	BOTTOM	PLATE, STEEL, 48" x 72" x 3/8" THK
6	4	LID BRACKET	ANGLE, STEEL, 4" x 4" x 1/2" x 3" L
7	4	POST	ANGLE, STEEL, 4" x 4" x 1/2" x 23.5" L
8	4	POSTBASE	PLATE, MILD STEEL, 8" x 8" x 3/8" THK
9	1	IDEAM	I-BEAM, S 4X9.5, 42" L COPED



Section A-A
Scale 1 / 10



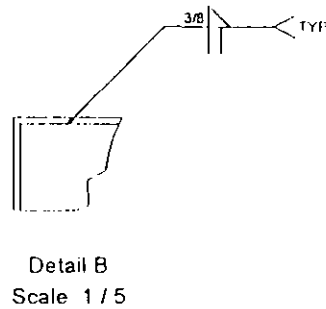
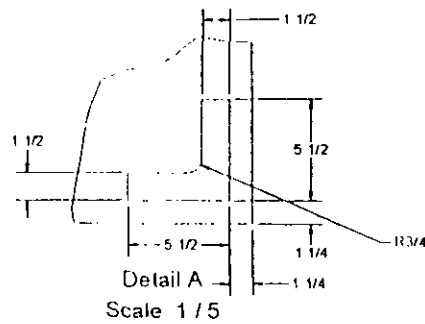
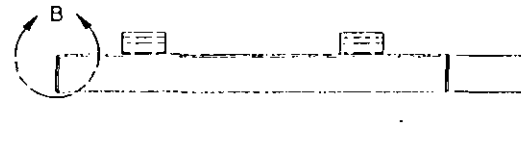
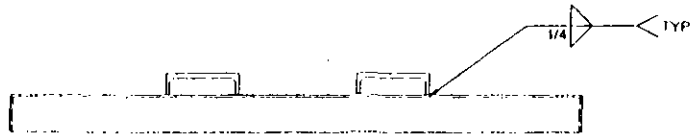
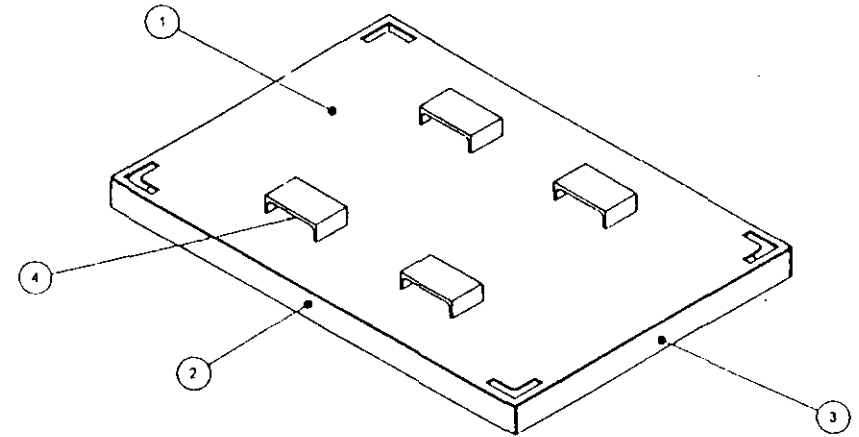
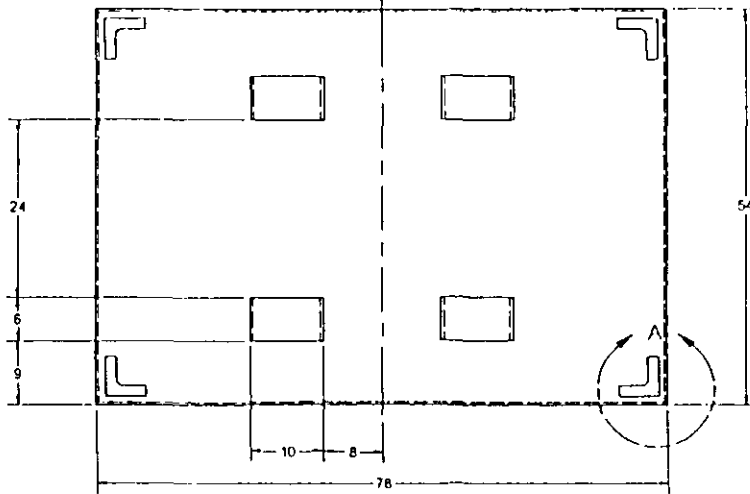
Detail B
Scale 0.14 : 1



Detail C
Scale 0.14 : 1

DATE	11/20/00	EL DORADO ENGINEERING, INC.	
CHKD	11/20/00	TITLE	
DATE	11/20/00	BURN KETTLE BODY	
DATE	11/20/00	FIGURE	REV
DATE	11/20/00	C II-6a	EGLIN-330-02

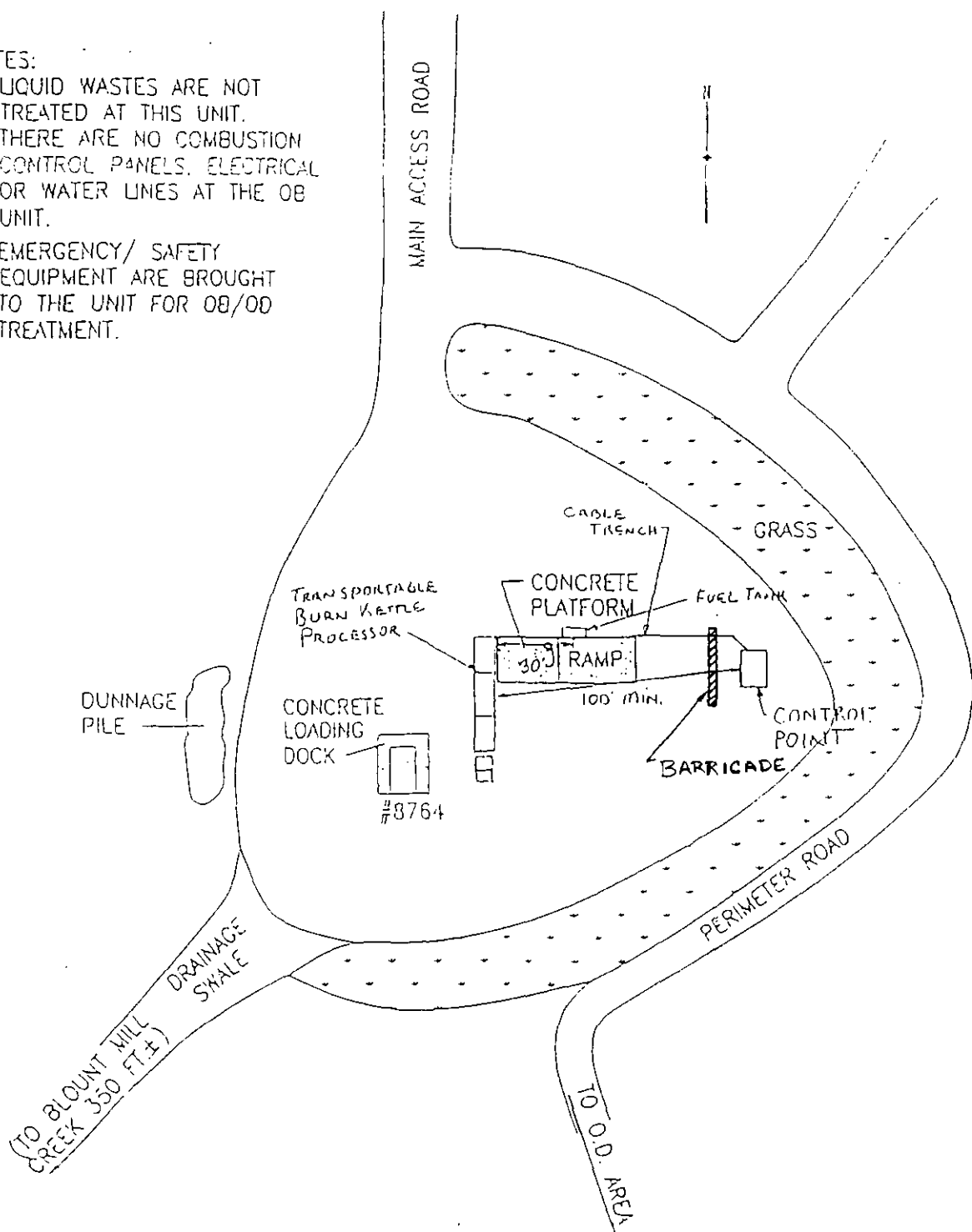
Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	lid	PLATE, LOW CARBON STEEL, 78" x 54" x 3/8" THK
2	2	LONG LID PLATE	PLATE, LOW CARBON STEEL, 78" x 4 3/8" x 3/8" THK
3	2	SHORT LID PLATE	PLATE, LOW CARBON STEEL, 53.25" x 4 3/8" x 3/8" THK
4	4	lid channel	CHANNEL, C10X30



DESIGN	DATE	SCALE	FIGURE	FIGURE	FIGURE
CRK	04-01	1/24/00	C	II - 6b	EGLIN-330-03
EL DORADO ENGINEERING, INC.			BURN KETTLE LID		
SCALE			SHEET 1 OF 1		

NOTES:

1. LIQUID WASTES ARE NOT TREATED AT THIS UNIT.
2. THERE ARE NO COMBUSTION CONTROL PANELS, ELECTRICAL OR WATER LINES AT THE OB UNIT.
3. EMERGENCY/ SAFETY EQUIPMENT ARE BROUGHT TO THE UNIT FOR OB/OD TREATMENT.



EA ENGINEERING,
SCIENCE, AND
TECHNOLOGY, INC.

EGLIN AIR FORCE BASE
RANGE C-62
WALTON COUNTY, FLORIDA

BURN KETTLE
PLAN VIEW

PROJECT MGR GEJ	DESIGNED BY OPM	DRAWN BY FDM	CHECKED BY GEJ	SCALE 1"=50'	DATE 04-01	PROJECT NO 11206.70	FIGURE II-7
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II.A2.12.5 Distance to Closest Receptor [40 CFR 270.23(e)]

The closest human receptors for Range C-62 (Figure II-5) are Air Force personnel at the control tower 1 mi north of the OB/OD units. The closest non-base receptors would be motorists travelling along Reservation Route 210. For C-52N (Figure II-4), the closest receptor is a spotting tower approximately 1 mi northwest of the OD unit. The closest non-transient receptor would be off-base residents located approximately 2.8 mi from Range C-62, OB/OD units and 6 mi from Range C-52N, OD unit.

II.A2.13 Additional Information on the Topographic Map [40 CFR 270.14(c)(3)]

II.A2.13.1 Uppermost Aquifer and Hydraulically Connected Aquifers Beneath Facility Property [40 CFR 270.14(c)(2)]

The uppermost aquifer (as described in detail in Section III.B2) in the vicinity of both the OB and OD units is the surficial sand and gravel aquifer (encountered at ± 50 ft below ground surface. At Range C-52N, the aquifer thickness is approximately 70 ft and at Range C-62 the aquifer thickness is approximately 100 ft. There are no wells within a 4-mi radius of either unit screened within the surficial aquifer. The surficial sand and gravel aquifer is underlain by the Pensacola Clay – a thick, low permeability confining unit (160 ft thick at C-62; 250 ft thick at C-52N). The Floridan aquifer underlies the Pensacola clay but is not hydraulically connected to the surficial aquifer due to the thickness and low permeability of the Pensacola clay.

II.A2.13.2 Ground-Water Flow Direction [40 CFR 270.14(c)(2)]

The hydraulic gradient identified at Range C-52N is calculated to be 0.01125 (over the first 19 quarters of monitoring, the gradient ranged from 0.007 to 0.015), and the groundwater flows to the south-southwest. The hydraulic gradient identified at Range C-62 is calculated to be 0.01818 (over the first 19 quarters of monitoring, the gradient ranged from 0.014 to 0.024), and the groundwater flows toward the southwest. Groundwater flow direction at both ranges has remained consistent over 19 quarters of monitoring.

II.A2.13.3 Waste Management Areas [40 CFR 270.14(c)(3)]

There are no other waste management areas in the vicinity of the OB/OD units. All other EAFB waste management units are addressed in EAFB RCRA Part B Permit Application dated October 1985.

II.A2.13.4 Property Boundaries [40 CFR 270.14(c)(3)]

Figure II-3 shows EAFB reservation boundaries and surrounding areas. Figure II-3 also shows boundaries of Ranges C-52N and C-62 within the EAFB reservation area.

II.A2.13.5 Point of Compliance Location [40 CFR 270.14(c)(3)]

See Section II.G, Proposed Ground Water Monitoring Program, for proposed point of compliance locations.

II.A2.13.6 Location of any Ground Water Monitoring Wells [40 CFR 270.14(c)(3)]

In November 1994, three groundwater monitoring wells were installed at the Range C-52N OD unit, and five groundwater monitoring wells were installed at the Range C-62 OB/OD unit. The locations of the wells are shown on Figures II-16 and II-17, respectively.

II.A2.13.7 Extent of Ground Water Contaminant Plume [40 CFR 270.14(c)(4)(i)]

A groundwater monitoring program was instituted at Ranges C-52N and C-62 in November 1994, and quarterly sampling events that include all monitoring wells at the sites have been conducted since. Groundwater samples are presently analyzed for explosives and general chemistry parameters at Range C-52N, and for explosives, volatile organic compounds, and general chemistry parameters at Range C-62 as part of a Detection Monitoring program.

II.A2.13.8 Location of Unsaturated Zone Monitoring [40 CFR 270.23(e)]

Surface and subsurface soil samples were collected during monitoring well installation in 1994 – results are presented in Appendix L-2 of the application. No unsaturated zone monitoring program was deemed necessary, based on previous results.

II.A3 DESCRIPTION OF TREATMENT UNITS (40 CFR 270.23(a)(2))

II.A3.1 Location

Range C-62 is located in the northeast corner of the reservation area, approximately 2.8 miles south and west of the reservation boundary and approximately 20 miles east of the main base. The OB/OD units at Range C-62 is situated along the range's south border. The OD unit at Range C 52N is located approximately 12 miles to the east of the main base, and 5 miles north of Choctawhatchee Bay. The OD unit at Range C-52N is located in the middle of the range between the Bay Head and Coon Head branches of Basin Creek. Figures II-4 and II-5 provide details of site facilities and of the surrounding vicinity.

II.A3.2 Design

Two discrete hazardous waste treatment operations are performed at Ranges C-62 and C-52N, open burning and open detonation. No devices have been designed or engineered for use in the OD operations. A containment device has been engineered for OB operations. As described in Section III.A1 of this application, the burn kettles used for these activities were designed to meet the following objectives:

- Prevent contact of the soil and the wastes and materials being burned
- Efficiently heats burn kettles used in OB operations to minimize releases to the environment
- Minimize the ejection of materials or wastes from the device onto the ground.
- Retain the minor detonations which might occur when munitions are burned.

The device used for these operations is a manufactured steel burn kettle with detachable heat source. Additional information on the burn kettle and heat source is in Appendix B.

No explosives, blasting caps, safety/emergency equipment or waste are stored on site. All materials are brought to the treatment areas at the time OB/OD missions are conducted.

II.A3.3 Operation

OB/OD operations are detailed in the SOIs described in Sections III.A1 and III.A3. A brief summary of these activities is provided below.

II.A3.3 Operation

OB/OD operations are detailed in the SOIs described in Sections III.A1 and III.A3. A brief summary of these activities is provided below.

During OB operations, low explosive wastes are placed into the burn kettles. The burn kettle's lid is replaced and the PEP loaded burn kettles are placed onto the retracted carbottom portion of the Transportable Burn Kettle Processor (TBKP). The loaded carbottom is then moved back into the TBKP's processing chamber and the burn kettles are heated indirectly by heat from the TBKP. No additional fuels or combustible materials are required to be added to the burn kettles so the quantity of waste residues generated is minimized. Following cool down and as determined by EOD personnel, the collected residue from the burn kettles is removed. The residue will have a hazardous waste determination prior to disposal.

Intact ordnance items identified in the residue that were not detonated or not fully treated during OB will be retreated. The remainder of the residue is removed from the burn unit and packaged in 55-gal. drums. The remainder of the residue is removed from the burn unit and packaged in 55-gal. drums. The drums are sampled, sealed, and marked with the date of the operation and AFTO form 358 unit control number. The residue samples of the burned material are processed through EAFB Bioenvironmental for reactivity and TCLP toxicity hazard analysis in accordance with the waste residue management plan (Appendix E). If the results of analyses indicate properties of non Reactivity and non-toxicity under TCLP, the drums will be handled properly as non-hazardous solid waste. If the waste determination is that the residue exhibits reactivity, it will be retreated until it can be determined that the residue is no longer hazardous.

Explosive ordnance identified by TO 11A-1-42 as requiring disposal by open detonation is transported to a specific open detonation unit on an active bombing range. These ordnance items are placed in existing bomb craters which serve as detonation pits. The net explosive weight limitation for any one open detonation is limited to 3,000 lbs. Once all personnel, except for the EOD Disposal Team, have withdrawn from the treatment area, the EOD Team prepares the ordnance or explosive waste by placing plastic explosive material, such as C-4, in accordance with TO 11A-1-42 or USAF Technical Order (TO) 60-series, "Explosive Ordnance Disposal Procedures." A copy of the current version of TO 11A-1-42 is provided as Appendix F. The C-4 is primed with redundant blasting caps and initiated by time use or radio control device. EOD personnel withdraw to the Range Control Facility, which is located

- TCLP Lead-1311, 6010, 3010
- TCLP-Mercury-1311, 7470
- TCLP Selenium-1311, 7000, 3020
- TCLP Silver-1311, 6010, 3010
- TCLP 2,4-DNT-extraction method 8310

II.B2.4 Methods Used to Obtain Representative Samples of the Waste Being Analyzed [40 CFR 264.13(b)(3) and 40 CFR 261 Appendix I]

If no energetic materials are visible within the OB containment unit after the completion of the burn and at a time determined by EOD personnel, residues are removed from the unit and placed in sealed 55-gal. drums or larger containers. The ash residue from each burn event is not combined with residue from other OB events. Prior to sampling and analyses, the ash is thoroughly mixed within the ash management container using a metal shovel. A representative sample of the ash is then removed and transferred to sample jars for the reactivity and TCLP analyses.

II.B2.5 Frequency of Revisions or Repetition of Analysis [40 CFR 264.13(b)(4)]

For each burn event generating ash, a hazardous waste determination will be made.

II.B2.6 Facilities Managing Wastes Generated Offsite [40 CFR 264.13(c)]

All waste munition items treated at the OB/OD units at EAFB for which RCRA permitting is applicable have been generated at EAFB or any DOD installation in the United States with valid support agreements with EAFB. The only non-DOD wastes generated offsite that are managed at EAFB Ranges C-62 and C-52N are those highly unstable items which require emergency treatment to prevent "an imminent and substantial threat of discharge of hazardous waste." Management of these latter wastes is not subject to the RCRA regulations of this section as specified in 40 CFR 264.1(g)(8). At no time will treatment at the EAFB OB/OD units be allowed for non-DOD offsite wastes or energetic materials not meeting this specific exemption.

II.C4.2 Description of Mechanisms to Prevent Runoff and Flooding
[40 CFR 270.14(b)(8)(ii)]

Engineered runoff and runoff controls in and around the treatment units are infeasible. OB/OD operations are not conducted in weather conditions that would cause runoff during the operations. THE OB kettles provide containment to prevent significant dispersal of fragments and residual ash. After a waiting period as determined by EOD personnel following cessation of open burning operations, residue that has been rendered non-hazardous is containerized and removed from the treatment area. Therefore, waste will not be carried away as runoff during future weather conditions. Flooding would be unlikely at the OB/OD treatment areas; however, should flooding occur, OB/OD missions would be suspended until the range had been restored to an operable condition.

Due to the nature of detonation, OD operations are conducted on the ground in shallow pits without any form of engineering controls that would serve to prohibit runoff and runoff from entering or leaving the treatment area.

II.C4.3 Description of Mechanisms to Prevent Contamination of Water Supplies
[40 CFR 270.14(b)(8)(iii)]

The Floridan aquifer is the only water supply source in the area and is not likely to be impacted due to the presence of the 150- to 200-ft-thick Pensacola clay confining layer that overlies it. There are no surface water intakes within 15 mi. of Range C-52N or C-62. The protection of ground water is discussed in Section II.G, and the protection of surface water is discussed Section II.H.

II.C4.4 Identification of Equipment Failure to Power Outage Hazards and
Description of Procedures to Mitigate Effects of Equipment Failure and
Power Outages [40 CFR 270.14(b)(8)(iv)]

Previously scheduled OB/OD missions would not commence if a power outage or unfavorable weather conditions existed. Once a mission is in progress, the OB/OD equipment does not require a permanently installed outside source of electric power and is not directly affected by a power failure. EOD activities are manually prepared and initiated, and, as such, are not potentially impacted by equipment failure or power outage. As previously stated, all EOD personnel are equipped with hand-held two-way radios that can summon emergency assistance. These radios are also available during waste transport in case of a vehicular breakdown.

In the unlikely event that evacuation beyond the control building is required, personnel will evacuate using the EOD vehicle, or on foot, to designated rally points identified prior to the start of the OB/OD mission. Locations of rally points will be based on the safe distances specified in Attachment 1 to SOI 136-18 (Appendix B).

II.D1.6 Location and Distribution of the Contingency Plan [40 CFR 270.14(b)(7) and 40 CFR 264.53]

Copies of this plan will be maintained at the Range Operations Control Center (ROCC), the EOD Operations Center, as well as the following locations:

- Environmental Protection Office (850) 882-2879
- AFDTC Command Post (850) 883-4020
- High Explosives R & D Facility (850) 882-9533
- Base Fire Department (850) 882-5856
- Bioenvironmental Engineering (850) 883-8607
- Security Police Squadron (850) 882-2502
- AFDTC Disaster Preparedness Division (850) 882-3177
- Base Hospital (850) 882-7227
- Natural Resources Fire Response (850) 882-4164

Copies have also been sent to the following local agencies:

- U.S. EPA Region IV
- Florida Department of Environmental Protection (FDEP)
- U.S. Coast Guard Station-Destin, Florida

Additional copies are available for other interested local agencies who are parties to cooperative support agreements with EAFB as shown in Table III-9.

The plan will be reviewed annually and amended as required. A revised copy will be provided to the above locations following any amendments to the plan.

II.F CLOSURE AND POST-CLOSURE PLAN

II.F.1 CLOSURE PLAN DOCUMENTATION [40 CFR 270.14(b)(13)]

The purpose of this closure plan is to describe the procedures and methods by which the OB/OD units at EAFB will be closed in accordance with Resource Conservation and Recovery Act of 1976 (RCRA) as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA). This plan describes the OB/OD units, decontamination and sampling procedures, health and safety requirements during closure, and approximate closure schedule.

The units used for thermal treatment of RCRA-regulated explosive wastes include six burn kettles and one TBKP designed for OB of low explosive waste munitions and one OD unit located on active bombing Range C-62. A second OD unit is located on active bombing Range C-52N. These ranges are shown on Figure II-3. OB/OD operations have been conducted at EAFB since 1950. An average of 100,000 separate items of approximately 15,000 pounds total net explosive weight were treated annually at the OB/OD units between 1989 to present.

Prior to 1989, OB operations were conducted on the ground within a pit. Two new burn kettles were installed in May 1989. Each unit consists of one 8 x 8 x 20 ft reinforced plate steel container. Sides and bottom are constructed of ½-in. steel plate continuously welded on the interior with a reinforced 4 x 3 x ¼ in. rectangular tubing top rail. Side walls and bottom are reinforced with 4 in. x 5.4 lb. structural channel on 30-in. centers. Both units are equipped with hinged rear doors. The doors are ½ in. steel plate with 4-in. x 5.4 lb. structural channel reinforcement. Each burn kettle weighs 15,400 lbs. Both kettles were placed on top of a 6-mil polyethylene liner with 2 ft of compacted soil cover. Low explosive wastes are placed into the kettle after the doors are closed. Approximately 50 to 100 gal. of diesel fuel along with dunnage (wood and fiberboard) is placed in the OB unit and remotely ignited. The fuel is consumed in the burn and, following a cool down period, the residual ash is removed and visually and visually inspected. Any energetic material found in the ash are retreated. The residual ash removed from the OB unit is characterized and disposed of as described in the OB/OD Waste Residue Management Plan (Appendix E). These kettles were removed under a permit modification dated October 13, 2001.

High explosive wastes are treated by OD operations. Both OD units are cleared areas, approximately 100 x 200 ft, where explosive materials are placed on open ground and

remotely detonated. C4 plastic explosives are used to initiate and augment the detonation as required.

II.F1.1 Description of Partial or Final Closure Procedures [40 CFR 264.112(b)(1) and (2)]

EAFB intends to operate the OB/OD units until they are no longer required, which is expected to be until the Air Force Base ceases operation. All OB/OD units will be closed at the same time; therefore, no partial closure activities are contemplated. During final closure, each unit will be closed by treating the final volume of hazardous waste, treating the explosive residues generated during the last treatment, and removing all metal from the surface for disposal as scrap or in accordance with applicable regulations. Sampling will be conducted as outlined in this closure plan. If any contamination is identified, it will be removed and disposed of in an approved location. After sampling and contamination removal, the pits will be backfilled and regraded. In addition, the burn kettles will be decontaminated and recycled or disposed of in accordance with applicable regulations.

II.F1.2 Description of Maximum Unclosed Portion During the Active Life of the Facility [40 CFR 264.112(b)(2)]

During the active life of the facility, the OB/OD units will not be closed. The OB units consist of six burn kettles located on Range C-62 (Figure II-5), and the OD facilities consist of two 100 x 200 ft cleared areas, one each on Ranges C-62 and C-52N (Figures II-4 and II-5).

II.F1.3 Estimate of Maximum Waste Inventory in Storage and Treatment During Facility Life [40 CFR 264.112(b)(3)]

The maximum inventory of hazardous waste at the OB/OD units is based on the allowable range limitation on the net explosive weight (NEW) of unserviceable munitions. The maximum amount of unserviceable munitions accommodated by the OB/OD units at one time is 3,000 pounds NEW per OB/OD event. No wastes are stored or stockpiled at the OB/OD units at any time. Wastes are brought to the OB/OD units at the time that OB/OD activities will be performed. Once the munitions are brought to the OB/OD units, they are treated until they are rendered non-hazardous. Disposal is accomplished either through the Defense Reutilization and Marketing Office (DRMO) recycling program or transport to an approved disposal area.

samples was chromium in the 94-52-01 sample (unfiltered or total fraction) at 145 µg/L (MCL for chromium is 100 µg/L). However, the corresponding filtered (dissolved fraction) sample concentration for chromium was reported below the detection limit and the first quarter chromium concentration in the total aliquot of this sample was 75.5 µg/L (below MCL). General regional groundwater quality information is discussed in Section III.B3.

Quarterly groundwater monitoring has continued at the sites since 1994. Results are submitted to FDEP and EPA quarterly.

II.G3 IDENTIFICATION OF UPPER-MOST AQUIFER AND AQUIFERS HYDRAULICALLY INTERCONNECTED BENEATH THE FACILITY PROPERTY [40 CFR 270.14(c)(2) and 270.23]

The uppermost aquifer (as described in detail in Section III.B2) in the vicinity of both the OB and OD units is the surficial aquifer (encountered at +30 ft below ground surface). At Range C-52N, the aquifer thickness is approximately 60 ft (based on pilot hole drilling in November 1994). At Range C-62, the aquifer thickness is approximately 100 ft. (Pensacola clay was encountered at 104.5 ft in C-62 pilot hole). There are no wells screened within the surficial aquifer within a 4-mi radius of either OB/OD unit other than the monitoring wells installed for this permit application. The surficial aquifer is underlain by the Pensacola clay – a thick, low permeability confining layer (estimated to be 160 ft thick at C-62 and 250 ft thick at C-52N). The Floridan aquifer underlies the Pensacola clay but is not hydraulically connected to the surficial aquifer due to the thickness and low permeability of the Pensacola clay.

II.G4 GROUND-WATER FLOW, DIRECTION, RATE, AND SOURCE OF INFORMATION [40 CFR 270.14(c)(2) and 270.23]

Groundwater flow, direction, and rate are calculated based on field data collected during each quarterly monitoring event. For the 19th Quarter of Detection Monitoring, the hydraulic gradient identified at Range C-52N is calculated to be 0.01125 (over the first 19 quarters of monitoring, the gradient ranged from 0.007 to 0.015), and the groundwater flows to the south-southwest. The hydraulic gradient identified at Range C-62 is calculated to be 0.01818 (over the first 19 quarters of monitoring, the gradient ranged from 0.014 to 0.024), and the groundwater flows toward the southwest. Groundwater flow direction at both ranges has remained consistent over 19 quarters of monitoring.

II.G5 DESCRIPTION OF ANY PLUME OF CONTAMINATION THAT HAS ENTERED THE GROUND WATER FROM A REGULATED UNIT [40 CFR 270.14(c)(4) and 40 CFR 270.23]

A groundwater monitoring program was instituted at Ranges C-52N and C-62 in November 1994, and quarterly sampling events that include all monitoring wells at the sites have been conducted since. Groundwater samples are presently analyzed for explosives and general chemistry parameters at Range C-52N, and for explosives, volatile organic compounds, and general chemistry parameters at Range C-62 as part of a Detection Monitoring program.

II.G6 PROPOSED GROUND-WATER MONITORING PROGRAM AND SOIL MONITORING PROGRAM [40 CFR 270.14(c)(5), 264.97, 264.6000, AND 270.23]

A detailed Sampling and Analysis Plan (SAP), developed in accordance with EPA Region IV Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual dated April 1986 (Region IV SOP), the EPA RCRA Ground-Water Monitoring Technical Enforcement Guidance Document dated September 1986 (TEGD), the EPA Handbook of Suggested Practices for Design and Installation of Ground-Water Monitoring Wells dated March 1991 (EPA Suggested Practices Manual), and the Quality Assurance Project Plan (QAP) required by the State of Florida DEP in conjunction with the state laboratory certification program, is provided as Appendix I. Data Summary Reports of the analytical results from the first two quarterly sampling events of the soil and ground-water sampling program are provided as Appendices L-2 and L-3. This section of the RCRA Part B Subpart X application briefly summarizes relevant information from the SAP and QAP, and from the Data Summary Reports for the first two rounds of detection monitoring data.

Since ground-water and soil monitoring were not conducted at the OB/OD units prior to the initial permit application, the monitoring program was prepared to assess potential soil and ground-water contamination that may have resulted from OB/OD unit operations. The data obtained during this phase provided the baseline environmental quality information for the OB/OD units.

When warranted, statistical evaluations of data from Ranges C-52N and C-62 are performed in accordance with 40 CFR 264.98, Detection Monitoring Program. The objective of the analysis is to determine if there is a statistically significant elevated concentration over background of the detected parameters in the individual POC (downgradient) wells from the OB/OD operations. This goal is met by statistically analyzing the groundwater data that have been collected on the POC wells and comparing them with the background well data to determine the potential impacts to the regional groundwater quality.

In accordance with FDEP guidance, analytes with downgradient concentrations below either the MCLs, PQLs, Florida drinking water standards, or Permit screening values are not considered for statistical analysis as they are considered to be within permit requirements. Thus, only constituents above these standards are considered for further analysis. The statistical process is adapted from EPA documents *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Interim Final Guidance*, dated April 1989, and *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities: Addendum to Interim Final Guidance*, dated July 1992. The analysis is designed to determine whether POC well concentrations for the current quarter exceed current and historical background concentrations, at a specified significance level ($p = 0.05$).

The type of statistical test conducted for each analyte is a function of the number of samples and proportion of nondetections (censored data) in each group. The initial test data sets consist of the current quarter's test or POC well and background well data, plus background and POC data from the three preceding quarters. This statistical analysis process is in accordance with 40 CFR 264.98, Detection Monitoring Program.

- Items may be restricted from issue to specific units, activities or geographical areas by reason of their limited usefulness or short service life expectancy, rather than being destroyed.
- Items are continually screened and placed in priority issue when they are within two years of shelf life expiration or serviceable life has begun.
- Certain munitions undergo tests, alteration, modification, conversion or disassembly to prevent them from becoming unserviceable.
- Some munitions have been suspended from normal use, except emergency combat use, instead of being destroyed.

The current OB/OD treatment technologies are very safe for handlers. In the process of refining OB/OD procedures throughout DOD, numerous SOP's have been developed which specifically ensure the safety of handlers. In fact, one of the key limitations to implementing alternative technologies is that the quality of worker safety provisions is not verified.

III.A1.2 Containment Device Description [40 CFR 270.23(a)]

III.A1.2.1 Physical Characteristics, Construction Materials, and Dimensions of the unit [40 CFR 270.23(a)(1)]

All OB operations treating reactive hazardous wastes occur in metal containment structures (reinforced steel burn kettles). The burn kettles used for these activities were designed to meet the following objectives:

- Prevent contact of the soil and the materials being burned.
- Efficiently heat burn kettles used in OB operations to minimize releases to the environment.
- Minimize the ejection of materials from the device onto the ground.
- Retain the minor detonations, which might occur when munitions are burned.

Two new burn kettles were installed in May 1989. Each unit consists of one 8 ft x 20-ft container. Sides and bottom are constructed of ½ inch steel plate continuously welded on the interior with a reinforced 4 in x 3 in x ¼ in rectangular tubing top rail. Sidewalls and bottom are reinforced with 4 in x 5.4# structural channel on 30 in centers. Both are equipped with hinged rear doors. The doors are ½ in plate with 4 in x 5.4# structural channel reinforcement. A 6 in steel dam is welded at the door opening to the burn kettle where wastes are placed to provide additional containment of virgin fuel oil used to initiate burning. These burn kettles were removed as scrap metal in November 2000.

III.A1.2.2 Engineering Drawings of the Fabricated Device [40 CFR 270.23(a)(2)]

Figure II-6 provides details and cross sections of the OB units used at EAFB. Figure II-7 shows the plan view of the OB area. Additional manufacturer's information on the burn kettles is provided in Appendix B.

III.A1.2.3 Lining Material Within Device [40 CFR 270.23(a)(1) and (2)]

No lining materials are present in the steel burn kettles.

III.A1.2.4 Lining Material Below Device [40 CFR 270.23(a)(1) and (2)]

The burn kettles will be operated in a Transportable Burn Kettle Processor, which will be mounted on a semi-truck trailer flat bed. The TBKP will not contact the soil.

III.A1.3 Leak Detection Provisions [40 CFR 270.23(a)(1) and (2)]

Following residue collection at the end of each burn event, each burn kettle is inspected to ensure there are no holes, cracks, or other weaknesses in the structure of the device, thus detecting any leaks that may have occurred. This same inspection procedure is performed before the device is refilled prior to subsequent OB events. These activities prevent wastes or materials placed within the device from leaking, and therefore prevent

releases to the environment. The area around and below the TBKP will be inspected after each event.

A ground-water-monitoring program has been implemented to provide additional leak detection capability. The ground-water-monitoring program is described in Section II.G.

III.A1.4 Precipitation Cover [40 CFR 270.23(a)(1) and (2)]

The burn kettles will be stored either in the water tight TBKP or in a building between uses.

III.A1.5 Control of releases of Ashes and Residues During OB (Integrity of Containment Devices) [40 CFR 270.23(a)(1)(2)]

The burn kettles will be within the TBKP, preventing release of virtually all ash and residue. Post-burn clearance activities are conducted at a time determined by EOD personnel but no earlier than 12 hours after completion of an OB event to ensure that the area is safe to approach. To facilitate location and collection of ejected wastes following completion of each burn event, a cleared area (approximately 175-ft in diameter) is maintained around the OB burn kettles. The ground surface is relatively level and consists of white sand. Ejected wastes can easily be identified and collected, as appropriate. Ash and other residues are removed from the containment device the day after the burn is completed. This action further minimizes the potential for the release of ash. No injection of waste is anticipated.

A final procedure to prevent the release of residues from the OB containment device is to regularly monitor the integrity of the device and repair it if there is a concern over its integrity. Following residue collection at the end of each burn event, the device is inspected to detect holes, cracks, or other weaknesses in the structure of the device. This same inspection procedure is performed before the device is refilled prior to subsequent OB events.

III.A1.6 Methods to Control Deterioration of Fabricated Devices [40 CFR 270.23(a)(1) and (2)]

Deterioration of the containment devices is not controlled; however, the device is inspected for deterioration and maintained if deterioration is evident. At that time, the device is inspected before each open burn to detect holes, cracks, or other weaknesses in the structure of the device. The same inspection procedure is performed prior to subsequent OB events. If a weak spot or hole is observed, the damaged burn kettle will not be used until it is repaired.

III.A1.7 Prevention of Accumulation of Precipitation [40 CFR 270.23(a)(1) and (2)]

Although attempts are made not to schedule burn activities during and immediately preceding rainfall events, measurable precipitation may occur in the vicinity of the OB/OB units on any day of the year. Additionally, it is impossible to predict with complete certainty if measurable precipitation will occur after the burn and before the containment device can be approached. The burn kettles will be in the TBKP, which will prevent any contact of precipitation with any ashes or waste.

The following measures are implemented to minimize accumulation of precipitation. After the containment device can be safely approached following completion of the burn (as determined by EOD personnel, but not later than 24 hours after the burn was initiated), EOD personnel inspect and collect the residues contained within the device. The containment device is then washed and wash-down water is collected and analyzed prior to disposal. Any accumulated precipitation will be contained with the wash water.

III.A1.8 Handling of Precipitation Accumulated Fabricated Devices [40 CFR 270.23(a)(1) and (2)]

After the containment device can be safely approached following completion of the burn (as determined by EOD personnel but not later than 24 hours after the burn was initiated),

EOD personnel inspect and collect the residues contained within the device. The containment device is then washed and wash down water is collected and analyzed prior to disposal. Any accumulated precipitation will be contained with the wash water.

III.A1.9 Controls to Prevent Wind Dispersion of Ash and Other Residue [40 CFR 270.23(a)(1) and (2)]

The design of the containment device, and procedures for placement of waste and materials within the device, are such that the ejection of residues from the device during the burn is minimized. The burn kettles are protected from the wind by the TBKP. Furthermore, ash is removed from the device soon after the burn is completed (as determined by EOD personnel) and never later than the day after the burn, further minimizing the opportunity for ash to be dispersed by the wind.

III.A1.10 Inspection, Monitoring and Maintenance Plan [40 CFR 270.23(a)(2)]

Routine inspection of the OB burn kettles is discussed in Section III.A1.6. More specific inspection procedures for the OB/OD units are described in Section II.C2 of this application.

The OB containment device is not approached after a burn is conducted until the burn is completed and residue has cooled. EOD personnel will determine when it is safe to approach the device. Not later than 24 hours after the burn occurs, residue management and inspection procedures are implemented. Residues within the containment device are inspected to ensure all items have been successfully burned. Items remaining in the containment device that still contain energetic material are treated by open detonation on the same day.

III.A1.11 Ash and Residue Management [40 CFR 270.23(a)(2)]

The following OB residue management procedures, described in the EAFB OB/OD Residue Management Plan (Appendix E), are implemented as soon as EOD personnel determine that the containment device can be approached.

- *Ash Contained in the Containment Device* - separated from metallic fragments, collected, characterized for reactivity and TCLP metals, containerized, and disposed of properly based on the results of the characterization.
- *Large Metallic Fragments Not Containing Energetic Materials, Located in the Containment Device* - separated from the ash, collected and accumulated for shipment to the Defense Reutilization Marketing Office (DRMO) to facilitate recycle or disposal.
- *Metallic Fragments Containing Energetic Materials Located in the Containment Device* - treated by detonation on the day they are located.
- *Metallic Fragments Containing Energetic Materials Ejected from the Containment Device* - treated by detonation the day they are located.
- *Large Metallic Fragments Not Containing Energetic Materials Ejected from the Containment Device* - collected accumulated for shipment to the DRMO to facilitate recycle or disposal.

III.A1.12 Copy of Standard Operating Procedures (SOPs) [40 CFR 270(a)(2)]

A significant number of U.S. Air Force and EAFB SOPs have been developed to effectively perform both OB and OD operations. A brief summary of the principal SOPs follows:

1. Squadron Operating Instruction (SOI) 136-18: Range Operations

This document is an 11-page outline for all procedures conducted on the range. A copy of SOI 136-18 is provided as Appendix C. This document, in turn, references other documents which are Air Force-wide documents (not included as an appendix to this application):

AFDTCI 32-9001:	Explosive Safety Standards
AFI 31-401:	Information Security Program
AFI 13-201:	Mission Scheduling & Control
AFDTCI 32-3001:	Explosive Ordnance Disposal
AACI 21-202:	Armament Technical Data Requirements
AFDTCI 32-9001:	Maintenance of Land Test Areas
AFDTCR 127-1:	Range Safety
TO 00-5-1:	AF Technical Order System
TO 11A-1-42:	General Instructions for Disposal of Conventional Munitions
TO 11A-1-66:	General Instructions, Demolition
TO 60A-1-22:	General EOD Safety Precautions
TO 60A-1-1-31:	Explosive Ordnance Disposal (EOD) Procedures

2. Air Force Development Test Center (AFDTC) Regulation 127-5, Designation of Explosives Loading/Unloading and Arm/Dearm Areas and Explosives Laden Vehicle Routes (Appendix C).

This document establishes designated loading/unloading and arming/dearming areas on EAFB. It also identifies authorized explosive-laden vehicle routes.

3. Technical Order 11A-1-42, General Instructions for Disposal of Conventional Munitions (Appendix F).

III.B ENVIRONMENTAL PERFORMANCE STANDARDS

III.B1 QUANTITY AND PHYSICAL AND CHEMICAL CHARACTERISTICS OF WASTE AND PRODUCTS OF COMBUSTION [40 CFR 264.601(a)(1), (b)(1) AND 40 CFR 270.23]

III.B1.1 EPA Waste Code [40 CFR 270.23(e)]

The majority of the wastes treated at the EAFB OB/OD units are hazardous due to their reactivity (D003) characteristics. Residue of ordnance items treated at the site may potentially be toxic, as characterized by TCLP, due to barium (D005), 2, 4-dinitrotoluene (D030) and/or lead (D008) content.

III.B1.2 Amount Burned at the Unit [40 CFR 264.601(a)(1) and 40 CFR 270.23]

There are six burn kettles for which this RCRA permit application applies. Each of these burn kettles will be used on Range C-62. Up to three burn kettles may be processed at one time in the TBKP. Approximately 5-10 lbs NEW will typically be loaded in each burn kettle. The numbers and types of specific munitions items comprising a single burn event are highly variable. Table II-2 provides a representative listing of munitions items and Appendix F-1 is a list of munitions that are treated in an OB event. No compound will contact the soil, groundwater or surface waste.

III.B1.3 Waste Composition Data [40 CFR 264.601(a)(1) and 40 CFR 270.23]

Wastes that may be treated during the permit life are identified in Section II.B1 of this application. These wastes consist of an extensive list of ordnance items and energetic compounds provided in Tables II-1 and II-2.

Air pollutant emissions from OB/OD treatment consist primarily of combustion products and metal oxides and salts. The most prevalent combustion products include:

Aluminum	Magnesium
Carbon Dioxide	Sulfur Oxides
Carbon Monoxide	Hydrogen Sulfide
Nitrogen Oxides	Water
Ammonia	

Metals emissions can include oxides and/or salts (carbonates, chlorides, sulfates) of one or more of the following metals.

Aluminum	Magnesium
Antimony	Potassium
Barium	Silver
Calcium	Sodium
Copper	Strontium
Iron	Uranium
Lead	Zinc

In general, emissions of the metals and sulfur compounds are dependent upon ordnance composition as well as quantity treated, whereas emissions of the other combustion products are principally a function of the quantity and method of treatment.

In addition to the above contaminants, emissions of particulate matter can occur from OB/OD treatment. In particular, OD results in the ejection of soil particles into the air, a small percentage of which remains suspended and disperses with the plume.

Air pollutant emissions from OB/OD treatment were quantified using established computer modeling procedures and mass balance techniques developed by DOD for detonation of military munitions, in conjunction with published air pollutant emission factors (Appendix M). These procedures, in general, predicted that all waste constituents would be completely reacted to form the combustion products and metal compounds listed above. In reality, treatment may not be 100 percent complete, and trace amounts of products of incomplete combustion (typically volatile and semi-volatile organics) may be present in the plume. Also, untreated ordnance may sometimes be ejected from the OB containment unit and from OD, generally in

depth of at least 60 in. The Pamlico member is typically a dark reddish-brown muck 2 in. thick. It is underlain by a very dark grayish-brown sand to a depth of at least 80 in. The permeability of these sands is moderate with very high available water capacity.

III.B2.5 Topography of the Unit Area

EAFB is located in the Gulf Coastal Plain physiographic province. This province is characterized by relatively low topographic relief, predominantly sandy soil, and a gradual slope toward the Gulf of Mexico. Physiographic divisions within the Gulf Coastal Plain at EAFB include the Western Highlands and Coastal Lowlands. The Western Highlands occur at elevations of approximately 50 ft MSL and underlie most of EAFB. The Coastal Lowlands occur between 0 and 25 ft MSL and include coastal areas, flood plains of larger rivers, and coastal barrier islands (Figure III-1).

The Western Highlands are characterized by flat to rolling uplands with elevations reaching 250 ft MSL. The Coastal Lowlands are characterized by flat, poorly drained topography near the coast and in the flood plains of major rivers. The Western Highlands are separated from the Coastal Lowlands by the scarp of the Pamlico Terrace. This scarp forms a clearly defined break in slope at approximately 25 ft MSL at Eglin Main Base.

The surface elevation at both the OB unit at Range C-62 and the OD unit at Range C-62 is approximately 195 ft MSL. The surface elevation of the OB unit at Range C-52 is approximately 150 ft MSL. Both OB/OD units are located on primarily level ground surfaces in the immediate treatment areas while sloping off in the vicinity of surface drainage features. More detailed information is discussed in Section II.A2.

III.B3 PROTECTION OF GROUND WATER AND SUBSURFACE ENVIRONMENT [40 CFR 264.601(a) and 40 CFR 270.23(b)(c)]

III.B3.1 Potential for Migration through Soil, Liners, and Containing Structures [40 CFR 264.601(a)(1)]

During an open burning event, burn kettles have been designed to provide containment of original wastes and diesel fuel and the residual ash. Migration of this material is not expected to occur because there is no discharge of waste from the structures. The burn kettles and containment dams are visually inspected before and after each burn to determine their integrity, and assure that materials have not been released.

Open detonation activities are not conducted within any particular structures. During a detonation, most of the items to be disposed of are metal scrap, which may remain in and around the resulting pit created by the detonation. Post-treatment inspections are conducted to remove any unexploded ordnance or large size debris.

A ground-water monitoring and soil characterization program is being implemented to assess potential migration through soil, liners, and containing structures (Section II.G). If results indicate that additional containment is required, process modifications will be implemented.

III.B3.2 Ground-Water Quality and Possible Sources of Contamination [40 CFR 264.60(a)(3)]

Water from the sand and gravel aquifer in Okaloosa and Walton counties generally meets state and federal requirements for drinking water (Hayes and Barr 1983). The pH of water from the surficial zone ranged from 5.7 to 7.7 and from 4.5 to 6.9 in the main producing zone. Iron concentrations in the surficial zone varied from 0.02 to 4.3 mg/L and from 0.01 to 3.7 mg/L in the main producing zone. A summation of the Hayes and Barr (1983) data is provided in Table III-2.

Available ground-water quality data for EAFB include a sampling of EAFB Well No. 90 on 27 November 1972. This well is located approximately 1.8 mi. west southwest of the Range C-52N OB/OD units and is screened in the Floridan Aquifer. These data, provided in Figure III-8, indicate that the water quality complied with applicable drinking water standards.

Based on the nature of Ranges C-62 and C-52N, the only potential sources of ground-water contamination at both ranges are related to unexploded ordnance items and military research and development activities. Both areas are active bombing ranges, so active training missions may contribute to potential surface soil, water, and /or ground-water contamination. This is particularly true for Range C-52N, which is primarily a bombing range and is only used at infrequent intervals for OD activities. The ground-water sampling program described in Section II.G will provide additional data to assess current ground-water quality conditions at the OB/OD units.

III.C AIR QUALITY ASSESSMENTS

III.C1 VOLUME AND PHYSICAL CHARACTERISTICS OF THE WASTE IN THE UNIT

[40 CFR 270.23(b) and 264.601(c)(1)]

EOD operations at EAFB involve OB and OD of waste ordnance materials and developmental munitions. Thermal treatment of these waste items, excluding emergency EOD operations which are handled on a case-by-case basis, is conducted on active bombing Ranges C-52N and C-62 within the EAFB reservation. Wastes currently treated by OB/OD include serviceable and unserviceable munitions, wastes generated at Eglin's HERD facility, and wastes generated by EOD operations. Serviceable munitions treated by OB/OD consist of munitions used in military training exercises and specialized weapons testing. These munitions include, but are not limited to igniters, cartridges, rounds, flares, rockets, smoke canisters, bombs, propellants, and pyrotechnics. Wastes generated by the HERD facility include research and development explosives, experimental explosives, and traditional explosives. Research and development explosives include AFX 1100, AFX 453, AFX 931, AFX 931-M, PBXN 109, and TNT/SNQ. More detailed information on the volume and physical characteristics of wastes handled by OB/OD is provided in Sections II.B and III.B1. Operations are conducted on an as needed basis approximately once a month. EOD personnel have indicated that approximately 10,000 lbs combined net explosive weight (NEW) of waste explosives have historically been open burned on an annual basis, while approximately 5,000 lbs combined NEW per year have historically been open detonated.

Range C-62 is located in the central portion of Walton County, approximately 20 mi. northeast of the Eglin Main Base. Specifically, Range C-62 is located on the south side of Range Route 317, approximately three-tenths of a mile from the intersection of Range Routes 210 and 317 (Figure II-5). Range C-62, including the OB/OD units, has been cleared of trees and underbrush. The OB/OD units, which encompasses less than 1 acre, slopes slightly to the southwest towards the head of a tributary of Blount Mill Creek.

Range Complex (OB/OD units at both ranges) are limited to a maximum of 3,000 lbs combined NEW per detonation. Prior to detonating charges, a check with EOD Operations is made to confirm favorable weather conditions. Meteorological data collected at EAFB will be used to determine if conditions are favorable for OB/OD operations. Disposal operations are not conducted during an electrical storm or when such a storm is approaching within 3 mi. In addition, detonation operations that require the use of an electric firing system will not be conducted during sand, dust, or snow storms. Disposal operations are restricted to daylight hours.

All unserviceable munitions disposed of by EOD must first be listed on an approved AF Form 191, Ammunition Disposition Request (ADR). Munition items not listed on the AF Form 191, or quantities in excess of the pre-approved ADR amounts, will be refused for processing at the OB/OD units. All items designated as hazardous wastes must be manifested by the originator on an EPA Form 8700-22, Uniform Hazardous Waste Manifest, prior to transportation to the OB/OD unit. After processing, the Base Commander or his designee will sign the manifest, and a copy of the completed form will be retained.

After OB operations are concluded, the OB units are not to be approached until all signs of burning have ceased. Munitions residual determined to be free of hazardous waste are then transported to an approved construction/debris landfill for disposal. Items identified as still containing hazardous waste are returned for reprocessing.

III.C4 ATMOSPHERIC, METEOROLOGICAL, AND TOPOGRAPHIC CHARACTERISTICS OF THE UNIT AND SURROUNDING AREAS [40 CFR 264.601(c)(4)]

Ranges C-52N and C-62 are located in the west central and central portions of Walton County, Florida, respectively, approximately 30 mi. east of Pensacola, Florida. The climate of the Pensacola area is moderated by the Gulf of Mexico, which tempers the cold Northerners of the winter and creates cool sea breezes during the daytime in summer.

The topography of the area surrounding Range C-52N can be characterized as fairly flat, sloping gradually to Choctawhatchee Bay, located approximately six miles to the south. Elevations in this area range from 100 to 180 feet above mean sea level (MSL). The elevation at the open

- M15 Propellant (total combined NEW = 3,000 lbs)

The first three items were considered representative of the typical load (historically they have represented a large percentage of the waste treated by OB) as well as representative of "worst case" conditions. (They include propellant, explosive, casing, and additives.)

The number of items per scenario was developed based on the physical size of the munitions item and the size constraints of the available space within the OB burn kettles. Since different types of cartridges were chosen for these three scenarios, it is felt that this approach is both representative and conservative. The second three scenarios include three propellants commonly found in OB items. It was felt that modeling "bulk" amounts of these three propellants would, therefore, represent worst case emissions for the remainder of OB items.

For purposes of POLU13G modeling, 100 gal. Virgin diesel fuel was assumed, except for the bulk propellant runs. Each burn was considered essentially completed within 1 hour (for emissions purposes), additional POLU13G modeling of other potential waste items is not considered to be necessary.

III.C6a.2 Number of Fabricated Devices, Burn Areas, or Detonation
Pits Involved in a Burn or Detonation Event and the
Number of Events Per Day {40 CFR 264.601(c)(3)}

One OD event may include multiple detonations, with each detonation limited to 3,000 lbs combined NEW or less, and detonations staggered by at least 10 minutes. One TBKP and six burn kettles will be operated at C-62. Up to three burn kettles may be used in each OB. As many as four OB events may occur at EAFB on a given day.

III.D0.4 Protection of Shelter for Personnel During Burning or Detonation

After wastes and supporting energetic materials and fuels have been placed at the OB or OD units, all EOD personnel retreat to at least 2,000 ft from the OB/OD units and up to 10,000 ft for large ordnance such as 2,000-lb bombs (SOI 136-18, Appendix C). In most cases, EOD personnel initiate OB and OD activities from range control buildings at Range C-52N or Range C-62, as appropriate. These structures have been specifically designed to protect personnel from fragments or shock waves which may be expelled during onsite detonations and bombing mission activities. Additional information related to facilities, improvements, and uses associated with Ranges C-52N and C-62 is provided in Appendix D. A description of personnel protective equipment (PPE) and emergency response provisions is provided in Sections II.C3 and II.C4.

III.D0.5 Meteorological Conditions Under Which Burning and Detonation Will be Permitted or Restricted [40 CFR 270.23(c)]

OB/OD operations will only be conducted under the following meteorological conditions:

- daylight hours
- no electrical storms within 3 mi. of the EOD range
- no forecast of a major storm
- no sand, dust, or snow storm

III.D0.6 Length of Time After the Operation of the Unit Before Reentry of Personnel to the Burning Ground or Detonation Site Is Allowed [40 CFR 270.23(c)]

The OB containment device is not approached until the burn is completed and the residue has cooled, as determined by EOD personnel. Not later than the calendar day after the burn occurs, the containment device is inspected and residue management procedures are

Table II-5 EMERGENCY RESPONSE TEAM

Organization	Telephone No. (Duty Hours)
On-Scene-Commander	(850) 883-4020 (ECP)
Medical	Representative (850) 883-8227
Fire Department	911
Environmental Management Compliance Division 24 hour Emergency Spill Response Manager	(850) 882-6282 ext. 502 pagers 885-1739 pagers 885-0910
Bioenvironmental Engineering 24 hour emergency	(850) 883-8607 ext.263 (850) 885-0890/0448
Security Forces Squadron	(850) 882-2502
Public Affairs	(850) 882-3931
Civil Engineer Fire Department Disaster Preparedness Flight Environmental Management Compliance Div. Liquid Fuels Maintenance CE Spill Response Team	(850) 882-5856 (24 hrs)
Explosive Ordnance Disposal	(850) 883-4020 (ECP)
Safety	(850) 882-5204
Staff Judge Advocate	(850) 882-4611
Chaplain	(850) 882-2111
SVS/Mortuary Officer	(850) 883-4020 (ECP)
Airfield Management	(850) 882-5313
Photographer	(850) 882-2861
Transportation	2(850) 88-4581
Tenant Unit Representatives	(850) 883-4020 (ECP)
For spills to the sanitary sewer system, Contact: Wastewater Treatment Operations	(850) 882-5260
For spills requiring soil remediation, Contact; Petroleum Soil Treatment Facility	(850) 882-7791 ext.207

TABLE II-10 LOCAL, STATE, AND FEDERAL EMERGENCY CONTACTS

Florida Marine Patrol	850-678-1545 (Niceville) 1-800-432-5367 (Pensacola)
U.S. Coast Guard	850-233-0366 (Panama City) 334-441-5121 (Mobile)
Region IV Environmental Protection Agency Atlanta GA	404-526-5062 (Coastal waters) 404-881-4062 (Inland waters)
Destin Coast Guard	850-244-7146
Florida Department of Environmental Protection	904-932-5323 <i>57 1-800-320-0519</i>
EPA National Response Center	1-800-424-8802

*State
Lynn H. H.*

SUMMARY LIST OF CURRENT PERMITS

<u>Title/Subject</u>	<u>Permit No.</u>	<u>Expiration Date</u>
RCRA Part B Permit	HO46-286388	1 September 2001
Wastewater Facility Permits (6)		
– Main Base	FLA010189	15 November 2005
– Plew	FLA010190	05 December 2005
– C-6	FLA010243	20 January 2006
– Field 3	FLA010186	1 October 2005
– Chicken Little WW Permit	FLA180734	21 December 2003
NPDES Facility	FLR05C197	9 February 2006
Title V	09I0031-001-AV	2 July 2004
Numerous Consumptive Use Permits for Potable Water	Various	

APPENDIX B.

**EGLIN AIR FORCE BASE
BURN KETTLE SYSTEM WITH DETACHABLE FUEL SOURCE**

EGLIN AIR FORCE BASE - BURN KETTLE

Eglin Air Force Base will open burn their reactive or PEP type wastes using a specially designed Burn Kettles with a detachable fuel source. The burn kettles that have been specifically designed to thermally treat PEP waste are a safe, efficient manner. During OB operations, the low explosive PEP wastes are placed into the burn kettle, the lid is put back in place and the PEP loaded burn kettle in preparation for thermal treatment. The heat source to treat the burn kettles is provided by the Transportable Burn Kettle Processor (TBKP). The TBKP is an insulated heating chamber with a carbottom type floor that can be rolled out for loading/unloading. No additional fuels or combustible materials are required in the burn kettles so the quantity of waste residues generated is minimized. The heat source in the TBKP uses fuel oil plus forced ambient air to ensure clean burning of the fuel oil. The TBKP is an efficient treatment process and is designed to minimize emissions and contamination to the environment.

1. Burn Kettle.

The individual burn kettle as shown in attached sketch, is designed for thermal treating reactive or PEP type wastes. It is a vented, steel box with removable lid that has been designed to contain metal fragments plus much of the solid combustion residues. The use of a burn kettle to treat PEP wastes is an excellent choice from an environmental standpoint. It minimizes the direct contact of fragments and combustion residues with the ground and/or ground water.

2. Transportable Burn Kettle Processor (TBKP)

Eglin AFB will use the TBKP to provide the indirect heat to the burn kettles for treating Eglin's PEP wastes. The TBKP, as shown in the attached sketch, is a trailer mounted, transportable thermal processing unit designed specifically as a heat source to heat the burn kettles containing PEP materials. The PEP loaded burn kettles are placed onto the retracted carbottom of the TBKP and then the loaded carbottom is moved back into the TBKP's thermal processing chamber. The chamber door is closed and the insulated processing chamber is then heated up until the burn kettle(s) are approximately 1000°F. This temperature will ensure that all PEP wastes inside the burn kettles have been thermally destroyed.

3. Anticipated Burn Rate

The anticipated feed rate for the typical Eglin type configured items is anticipated to be approximately 5 to 25 pounds NEW per burn kettle depending on the configuration and type of PEP. Two loaded burn kettles will typically be processed at the same time. The typical process time per batch is estimated at 1 to 2 hours including heat up and cool down time. At this time it is anticipated that Eglin's PEP related wastes can be treated in approximately 1 or 2 operating days each month.

The TBKP is designed to be transportable and can be taken out to Range C-62 to treat Eglin's PEP wastes on-site. After the treatment is completed for the month, the TBKP and Burn Kettles can be moved off site so they will not sustain damage at the bombing range.

EGLIN AFB OB/OD RESIDUE MANAGEMENT PLAN

For the purpose of this plan, "residue" generated at open burning and open detonation (OB/OD) activities includes:

- ash contained in the OB containment device
- metallic fragments containing energetic materials located in the OB containment device
- large metallic fragments not containing energetic materials located in the OB containment device
- large metallic fragments from the OB containment device or remaining at the OD area after detonation
- large metallic fragments not containing partially burned/detonated energetic materials which have been ejected from the OB containment device or remaining at the OD area

1. OB ACTIVITIES

1.1 GENERAL

The OB containment device shall not be approached after a burn is conducted to ensure the burn is completed and the residue has cooled, as determined by EOD personnel. Not later than 24 hours after the burn occurs, residue management procedures shall be implemented.

1.2 GENERAL RESIDUE COLLECTION PROCEDURES

- 1.2.1 Residues within the containment device shall be inspected to ensure all items have been successfully burned. Items remaining in the containment device still containing energetic materials shall be retreated by OB the day they are discovered.
- 1.2.2 If no energetic materials are visible within the containment device, residues shall be removed from the device. Metal fragments, shell casings, etc., shall be separated from the ash. Metallic objects shall be placed in one compatible container, and ash shall be tightly closed to prevent spillage, and labeled to

include contents (i.e., OB ash, OB Metal Fragments, etc.), date of generation, and number of containers (i.e., 1 of 2).

- 1.2.3 The vicinity of the containment device shall be inspected for any items which may have been ejected from the device. Items still containing energetic materials shall be placed back into the containment device for burning that day. Large metallic items not containing energetic materials shall be placed in the OB metal fragments container.
- 1.3 OB ASH
 - 1.3.1 A representative sample of the ash shall be tested for reactivity, toxicity characteristic leaching procedure (TCLP) metals, and TCLP 2,4-dinitrotoluene (2,4-DNT) content to determine if it is a toxic hazardous waste. EOD personnel shall then complete AF Form 191, "Ammunition Disposition Request" and EPA form 8700 22, "Uniform Hazardous Waste Manifest", if applicable, and submit them to BEE, thereby informing EAFB environmental personnel that OB ash not containing explosives has been generated.
 - 1.3.2 EOD personnel shall remove the residue from the burn kettle and containerize it in 55-gal drums. Representative samples shall be collected and analyzed for all eight TCLP metals and 2,4-DNT. EOC personnel shall seal the drums and mark them with the date of the operation and AFTO Form 3587 unit control number.
 - 1.3.3 If no TCLP hazardous waste levels are exceeded, the container shall be buried in the approved on base facility.
 - 1.3.4 If at least one TCLP hazardous waste level is exceeded, the residue shall be disposed offsite through DRMO in accordance with hazardous waste disposal regulations.
- 1.4 METALLIC FRAGMENTS FROM OB OPERATIONS CONTAINING ENERGETIC MATERIALS
 - 1.4.1 When metallic fragments containing energetic materials remain in the OB container following an OB operation, they shall be retained in the container and returned that day.
 - 1.4.2 When metallic fragments containing energetic materials are ejected from the container during a burn, they shall be collected, returned to the container, and returned that day.

1.5 LARGE METALLIC FRAGMENTS FROM OB OPERATIONS NOT CONTAINING ENERGETIC MATERIALS

Larger metallic fragments not containing energetic material, regardless of whether they have been discovered in the OB containment device or have been ejected, shall be collected and accumulated for shipment to the Defense Reutilization Marketing Office (DRMO) to facilitate recycle.

2. OD ACTIVITIES

- 2.1 The OD area shall not be approached until the area is declared safe for entrance. This shall generally be within one hour of completion of demolition activities.
- 2.2 The OD area shall be inspected for any items which may remain after detonation. Items still containing energetic materials shall either be placed into the OB containment device for burning that day or shall be detonated that day.
- 2.3 Large metallic fragments not containing energetic materials shall be collected and accumulated for shipment to the DRMO to facilitate recycling.



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7046-006176-003

TECHNICAL MEMORANDUM

CH2MHILL

Eglin DRMO Facility Clean Closure and Independent Registered Engineer Certification

PREPARED FOR: Danny Freeman, Eglin AFB/EMCP
Ed O'Connell, Eglin AFB/EMCP

PREPARED BY: Chris Hood, P.E. /NWF

COPIES: Beth Vaughan /MGM
Meg Morrison /NWF

DATE: December 16, 2000

RECEIVED

APR 19 2001

NORTHWEST FLORIDA
DEP

The purpose of this memorandum is to document the closure activities of the Eglin Air Force Bases Defense Reutilization and Marketing Office (DRMO) hazardous waste storage facility and removal of the facility from the permit. Requirements for the clean closure of this facility were outlined in Section I of the RCRA Part B permit. The intent of this letter is to document the activities to close the DRMO-Eglin to discontinue hazardous waste container storage activities beyond 90 days.

A meeting was Prior to completing the site facility review, a review of Section I of the permit titled *Closure Plan, Post-Closure Plan and Financial Requirements* was completed with the Eglin Hazardous Waste Manager, Mr. Ed O'Connell. The following requirements were identified:

- Notification to FDEP for start of closure of the facility on 30 November 2000.
- Minimize and eliminate threats to human health and the environment, and no longer require maintenance.
- Meet the timeframe and schedule milestones for facility closure.
- Reduce, remove, recycle, or dispose of waste consistent with DRMO mission.
- Solvent washing of all floors and drains, segregated by containment trenches. Once washing has been completed, a sample will be collected for analysis.

Prior to the clean closure of this facility, Eglin personnel contacted FDEP representatives regarding the closure to the facility. Subsequent to this notification, the facility was inspected and a review of operations with an interview with the operations manager was conducted by a Florida Registered Professional Engineer. This review revealed that there has not been a documented spill of hazardous waste in this facility.

On December 6, 2000, closure activities began and were completed at the facility. Prior to the initiation of cleaning activities, a survey of the exterior of the building was performed. During this survey, there were no signs of distressed vegetation or staining of soil in there area around the DRMO storage facility. It should be noted that the facility is located on an existing IRP site OU-1. There is groundwater contamination at this site that has been investigated and has not been associated with the DRMO facility.


Actual clean closure activities included the physical removal of material from the coated concrete floor by hand sweeping. After this material was removed, a high-pressure low-volume pressure washer was used to remove material from the floor, berms, and sumps. All of the wash materials were contained in the sumps and removed using a diaphragm pump to 55-gallon drums. Sample(s) were collected from the drums for analysis per procedures proscribed in 40 CFR 261. If the wash material is determined to be characteristically hazardous waste, it will be manifested and disposed of at a permitted TSD facility.

On December 7, 2000 the final inspection of the facility was performed. This included a visual inspection of the floors and sumps. All of the wash materials had been removed from the sumps. It was concluded that solvent washing of the floor with the high-pressure low-volume pressure washer was successful in cleaning the floor.

Analytical results of the wash water indicate that all of the contaminants were below the analytical method detection limits and therefore the regulatory levels. This supports the documentation that there have been no spills in the facility and that the facility is suitable for clean closure. It is recommended to FDEP that the facility has met the requirements for clean closure. Eglin AFB would like to propose that the facility be managed in the future as a less than 90 accumulation point for hazardous waste.

If there are any questions regarding this Clean Closure Certification please feel free to contact me at 850.939.8300 extension 14. If there are specific questions regarding the permit or Eglin specific concerns please contact Mr. Ed O'Connell at 850.882.2879 extension 326

CH2M HILL


4/17/01

Chris Hood, P.E. FL# 53927
Environmental Engineer

Analytical Results from solvent wash activities are presented as an attachment to this memorandum.

NWF\DRMO Memo Addendum.doc

perMits	Events	Payment	Site	Facility	party	Reports	>
----- Permitting Application -----							
+----- SITE Permit -----+							
Site Name: USAF EGLIN ARMAMENT DIV						Site #: 0006176	
County: OKALOOSA		Comments: N RPAs: N # Cases: 0					
+----- Project -----+							
Permit #:		-		Project #:		003 Received: 19-APR-2001 CRA#: 91474	
Permit Office: NWD (DISTRICT)				Agency Action: Pending			
Project Name: EGLIN AFB				Desc: HO			
Type/Sub/Des: HO /03 LANDFILL, SUR IMP WAST				COE #:			
Logged: 20-APR-2001		Issued:		Expires:		OGC:	
Fee: 15000.00		Fee Recd: 15000.00		Dele:		Override: NONE	
+----- Related Party -----+							
Role: APPLICANT		Begin: 20-APR-2001		End:			
Name: NEWBERRY, MICHAEL R.		Company: EGLIN AFB					
Addr: 501 DELEON STREET SUITE 101							
City: ENGLIN AFB		State: FL Zip: 32542-5133 Country: USA					
Phone: 850-882-2867		Fax:					
+----- Processors -----+							
Processor: KELLENBERG_B				Y Active: 20-APR-2001 Inactive:			
+-----							
Enter Project Name.							
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perMits	Events	Payment	Site	Facility	party	Reports	>
----- Permitting Application -----							
+----- SITE Permit -----+							
Site Name: USAF EGLIN ARMAMENT DIV						Site #: 0006176	
County: OKALOOSA		Comments: N RPAs: N # Cases: 0					
+----- Project -----+							
Permit #: - -		Project #:003 Received:19-APR-2001 CRA#:91474					
Permit Office: NWD (DISTRICT)		Agency Action: Pending					
Project Name: EGLIN AFB		Desc: HO				COE #:	
Type/Sub/Des: HO /03 LANDFILL, SUR IMP WAST		Logged: 20-APR-2001		Issued:		Expires:	
Fee: 15000.00		Fee Recd: 15000.00		Dele:		Override: NONE	
+----- Related Party -----+							
Role: APPLICANT		Begin: 20-APR-2001		End:			
Name: NEWBERRY, MICHAEL R.		Company: EGLIN AFB					
Addr: 501 DELEON STREET SUITE 101		State: FL Zip: 32542-5133 Country: USA					
City: ENGLIN AFB		Phone: 850-882-2867		Fax:			
+----- Processors -----+							
Processor: KELLENBERG_B		Y Active: 20-APR-2001 Inactive:					
+-----							
Enter Project Name.							
Count: 1		<Replace>					

AREA: NWD

Cash Receiving Application
Collection Point Log Remittance

Tot:

CRAF006A
\$21,300.00

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SYS\$RCPT: 350768 PNR: Check #: 630037 Amount: 5,000.00
SSN/FEI#: Name: DFAS EGLIN AFB
First: Middle: Title: Suf:
Address1: 501 DELEON ST., SUITE 101 Short Comments:
Address2: JR HO46-006176-003
City: EGLIN AFB ST: FL Zip: 32542- Country:
-----+-----

-----> P A Y M E N T (S) <-----

Distr	CL	Object	Payment	Applic/	S
		Code/Description.....	Amount.....	Fund	T
SYS\$PAYT	Area..		Reference#		A
453461	NWD	002234 HAZAR/WASTE-OPE	\$5,000.00	HO46006176 PA	PFTF CO

COMMIT FREQUENTLY

\$5,000.00 Payment total

Press <TAB> to accept Collection Point or enter F&A.

Count: *20

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<Replace>

AREA: NWD

Cash Receiving Application
Collection Point Log RemittanceCRAF006A
Tot: \$21,300.00

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| SYS$RCPT: 350762   PNR:          Check #: 619010          Amount:      10,000.00 |
| SSN/FEI#:          Name: DFAS EGLIN AFB                    |
| First:             Middle:          Title:                Suf: |
| Address1: 501 DELEON ST., SUITE 101                        Short Comments: |
| Address2:                                                  JR HO46-006176-003 |
| City: EGLIN AFB      ST: FL   Zip: 32542-                Country: |
+-----+
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+-----> P A Y M E N T (S) <-----+
| Distr              CL   Object          Payment          Applic/      S |
| CL               Code/Description..... Amount..... Reference#   Fund   T |
| SYS$PAYT Area... 002234 HAZAR/WASTE-OPE $10,000.00 HO46006176 PA PFTF A |
| 453460 NWD                                $10,000.00 HO46006176 PA PFTF CO |
+-----+
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| COMMIT FREQUENTLY          $10,000.00 Payment total |
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**NORTHWEST FLORIDA
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APPENDIX B.

**EGLIN AIR FORCE BASE
BURN KETTLE SYSTEM WITH DETACHABLE FUEL SOURCE**

EGLIN AIR FORCE BASE - BURN KETTLE

Eglin Air Force Base will open burn their reactive or PEP type wastes using a specially designed Burn Kettles with a detachable fuel source. The burn kettles that have been specifically designed to thermally treat PEP waste are a safe, efficient manner. During OB operations, the low explosive PEP wastes are placed into the burn kettle, the lid is put back in place and the PEP loaded burn kettle in preparation for thermal treatment. The heat source to treat the burn kettles is provided by the Transportable Burn Kettle Processor (TBKP). The TBKP is an insulated heating chamber with a carbottom type floor that can be rolled out for loading/unloading. No additional fuels or combustible materials are required in the burn kettles so the quantity of waste residues generated is minimized. The heat source in the TBKP uses fuel oil plus forced ambient air to ensure clean burning of the fuel oil. The TBKP is an efficient treatment process and is designed to minimize emissions and contamination to the environment.

1. Burn Kettle.

The individual burn kettle as shown in attached sketch, is designed for thermal treating reactive or PEP type wastes. It is a vented, steel box with removable lid that has been designed to contain metal fragments plus much of the solid combustion residues. The use of a burn kettle to treat PEP wastes is an excellent choice from an environmental standpoint. It minimizes the direct contact of fragments and combustion residues with the ground and/or ground water.

2. Transportable Burn Kettle Processor (TBKP)

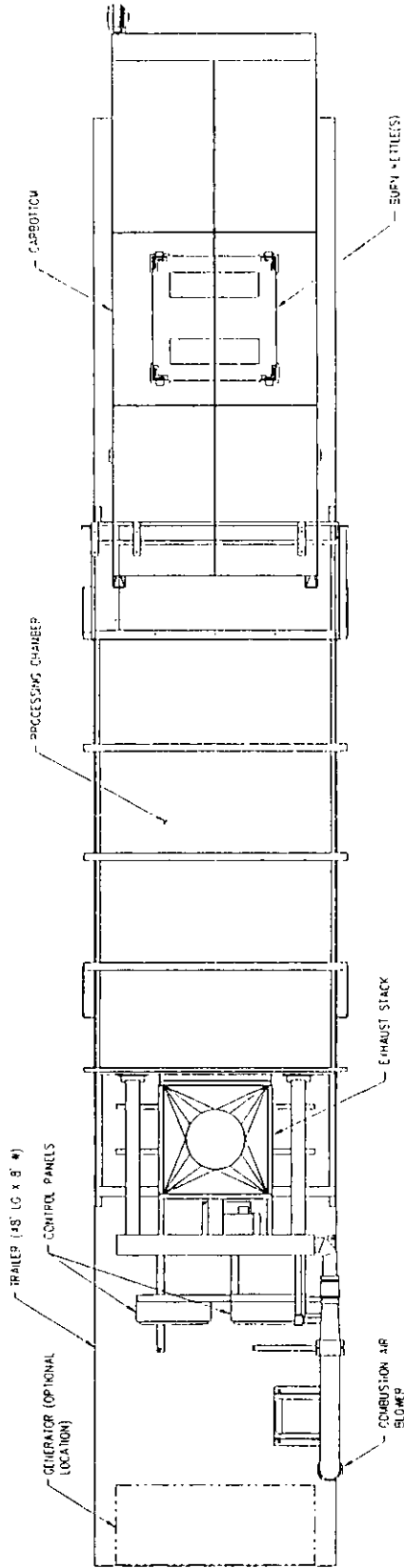
Eglin AFB will use the TBKP to provide the indirect heat to the burn kettles for treating Eglin's PEP wastes. The TBKP, as shown in the attached sketch, is a trailer mounted, transportable thermal processing unit designed specifically as a heat source to heat the burn kettles containing PEP materials. The PEP loaded burn kettles are placed onto the retracted carbottom of the TBKP and then the loaded carbottom is moved back into the TBKP's thermal processing chamber. The chamber door is closed and the insulated processing chamber is then heated up until the burn kettle(s) are approximately 1000°F. This temperature will ensure that all PEP wastes inside the burn kettles have been thermally destroyed.

3. Anticipated Burn Rate

The anticipated feed rate for the typical Eglin type configured items is anticipated to be approximately 5 to 25 pounds NEW per burn kettle depending on the configuration and type of PEP. Two loaded burn kettles will typically be processed at the same time. The typical process time per batch is estimated at 1 to 2 hours including heat up and cool down time. At this time it is anticipated that Eglin's PEP related wastes can be treated in approximately 1 or 2 operating days each month.

The TBKP is designed to be transportable and can be taken out to Range C-62 to treat Eglin's PEP wastes on-site. After the treatment is completed for the month, the TBKP and Burn Kettles can be moved off site so they will not sustain damage at the bombing range.

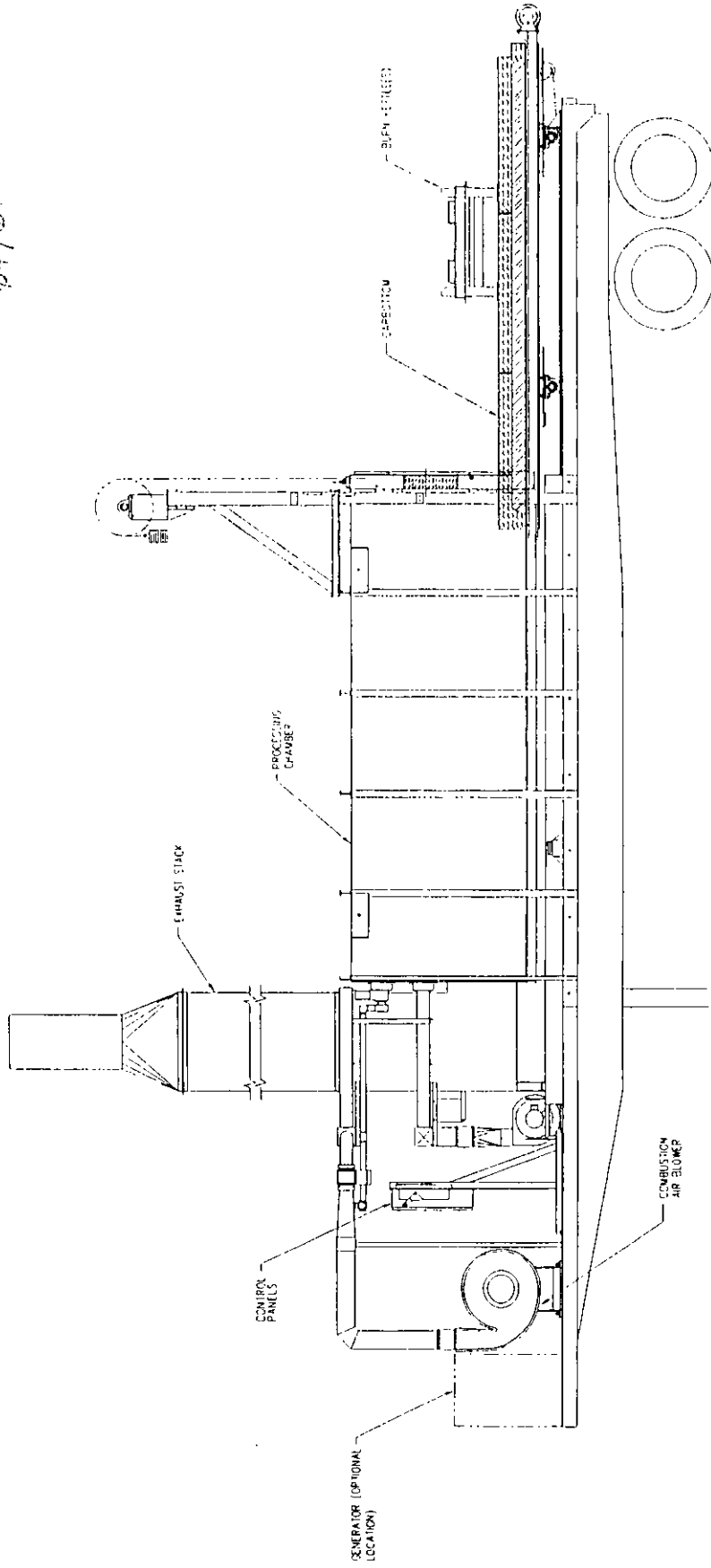
APPENDIX B
94/01



TRANSPORTABLE SOFT VENTURE PROCESSOR
PLAN VIEW

EL DORADO ENGINEERING, INC.
SALT LAKE CITY, UTAH

APPENDIX B
 12/4/81



EL DORADO ENGINEERING, INC.
 1400 E. 10TH AVE. DENVER, CO. 80202

TRANSPORTABLE BURNER PETTING PROCESSOR
 ELEVATION VIEW

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HO 46-006176 003

BY ORDER OF THE COMMANDER
AIR FORCE DEVELOPMENT TEST CENTER (AFMC)

AFDTC MANUAL 91-202
30 MAY 1995



Safety

**DESIGNATION OF EXPLOSIVES LADEN VEHICLE ROUTES, COMBAT AIRCRAFT
PARKING AREAS, EXPLOSIVES LOADING/UNLOADING AREAS AND ARM/DEARM AREAS**

This manual implements AFD 91-2, *Safety Programs*, and establishes the designated explosives laden vehicle routes, loading/unloading, and arm/dearm areas on Eglin AFB. It applies to all activities assigned, attached, or tenant to Eglin AFB that use or deliver explosives to the Eglin AFB (main) flightline explosives loading/unloading, arm/dearm areas and test ranges. The requirements of this manual pertaining to contractors will be included in the terms and conditions of the contract.

SUMMARY OF CHANGES

Replaces AFDTCR 127-5 in its entirety. Changed material is indicated with a * in the left margin.

1. Responsibilities:

- 1.1. The Commander, 46th Test Wing (46 TW/CC) is responsible for loading operations on: 46 TW—USAF Air Warfare Center (USAFAWC) parking ramp (except A and B rows); sugar row; trim pads; HS-1; taxiway M east/west; HGs-1, 2, and 3 (see attachment 1).
- 1.2. The Commander, 33d Fighter Wing (33 FW/CC) is responsible for loading operations on: 33 FW ramp; taxiway C (see attachment 2).
- 1.3. The Commander, 86th Fighter Weapons Squadron (86 FWS/CC) is responsible for Weapons Systems Evaluation Program (WSEP) loading operations on HG-6 (see attachment 2).
- 1.4. The Commander, 9th Special Operations Squadron (9 SOS/CC) is responsible for loading operations on: 9 SOS ramp; A and B rows of the 46TW—USAFAWC ramp (see attachment 1).
- 1.5. The Directorate of Contracting (AFDTC/PK) will include appropriate safety instructions in terms and conditions of contracts, statements of work (SOWs), etc., when they are identified applicable by the requirements organizations.
- 1.6. All commanders/supervisors (including tenants) involved in explosives operations are responsible for:
 - Preparing and maintaining current detailed safety instructions (OIs, regulations, or checklists) covering each operation involving explosives not covered in standard publications.
 - Coordinating the safety instructions with the AFDTC Weapons Safety Element (AFDTC/SEOW) prior to use. (See AFDTCR 127-3.)
 - Ensuring compliance with this manual.

2. Emergency Information Requirements for Aircraft Loaded with Explosives:

- 2.1. The 46th Test Wing Maintenance Operations Center (46 OSS/OSCSOO) and the 33d Fighter Wing Maintenance Operations Center (33 FW/CPW) will provide a flying schedule to the Fire Protection Division (96 CEG/CEF). The Fire Department will also be notified in the event of a change or deviation to the posted schedules.

Supersedes AFDTCR 127-5, 29 January 1993
OPR: AFDTC/SEOW (TSgt Treat)

Certified by: AFDTC/SEO (Lt Col Keeler)

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2.2. The 46th Test Wing Operations Group Commander (46 OG/CC), the 79th Test and Evaluation Group Commander (79 TEG/CC), the 33d Operations Group Commander (33 OG/CC), and the activities responsible for flight operations of TDY aircraft will make sure that all aircrew members identify hung or unexpended ordnance according to AFDTCR 55-3.

2.3. Base Operations (46 OSS/OSAO) will notify Base Fire Department (96th CES/CEF) of all arrivals and departures of explosives loaded cargo aircraft.

2.4. The 96th Transportation Squadron will placard explosives loaded cargo aircraft as necessary and notify 96 CES/CEF of all explosives loading and unloading operations.

3. Authorized Explosive Laden Vehicle Routes:

3.1. Vehicles transporting explosives to and from the designated loading areas on Eglin Air Force Base, Duke Field, and AFDTC Test Ranges will be restricted to designated explosives laden vehicle routes. Primary and alternate munitions delivery routes are shown in attachments 4 and 5. Due to the various munitions delivery/pickup areas serviced by the AFDTC munitions storage area, further definition of the alternate munitions delivery routes will be developed as the need arises. Where alternate munitions delivery routes require crossing an active runway, radio contact will be made with the airfield control tower prior to crossing.

3.2. Specific routes are not required when transporting munitions to and from licensed storage/operating locations. However, vehicles must take the most direct route utilizing the explosives laden routes to the maximum extent possible.

3.3. The Fort Walton Beach City Fire Department must be contacted at 243-8721 or 864-1553 when all Class A, B, or over 1000 rounds of C munitions, and hazardous chemicals and other dangerous articles are to be transported through the city. Notification will include routes to be taken which will be limited to state/federal roads.

★4. **Designated Combat Aircraft Parking Areas:** All AFDTC aircraft parking spots, taxiways and hanger facilities used to support the operational requirements of the 46 TW, 33 FW, USAFAWC, 9 SOS, and transient aircraft are designated combat aircraft parking areas except for buildings 138, 1339, and associated fuel system maintenance pads. These facilities may be used to park explosive laden aircraft provided there are no

open fuel tanks and approval is granted by the owning wing commander or designated representative.

5. **Aircraft Separation:** Aircraft must be separated by one spot when the Net Explosive Weight (NEW) of 1.1 munitions exceeds 100 lbs. Aircraft must be separated by two spots when the NEW of 1.1 munitions exceeds 2500 lbs. Aircraft must be separated by two spots when (04) 1.2 munitions are loaded and three spots when (08) or (12) 1.2 munitions are loaded regardless of explosive quantity. Aircraft must be separated by one spot when the NEW of 1.3 munitions exceeds 1000 lbs. These separations are designed to reduce the risk of explosive propagation and are based on the required inter-magazine separation criteria given in chapter 4 of AFM 91-201. They will not prevent damage to, or destruction of aircraft separated by these distances. Certain munitions (tactical missiles/small bombs) are authorized reduced distances (see AFM 91-201, table 4.7.). The NEW of common munitions items are listed in attachment 3.

5.1. Explosive loaded aircraft may be parked side by side if the total explosive quantity does not exceed the explosive limits of the most restrictive spot.

5.2. Separation is not required for 30 MM or less (04) 1.2 internal gun ammunition.

6. **AGM-65E, F and G 1.1:** AFM 91-201, table 4.7, lines 26 and 27, only apply to those missiles with an 85 lbs NEW. The AGM-65E, F and G have an assigned NEW of 100 lbs. AFM 91-201, table 4.7, lines 1, 2, and 3 apply. All spots authorized for AGM-65E, F, and G loading will be specifically identified.

★7. Authorized Loading/Unloading Areas.

7.1. 46TW-USAFAWC parking ramp including sugar row and both trim pads: 1.4 munitions authorized. 1.3 munitions limited to AN/ALE Flares only.

7.2. 9 SOS parking ramps, as well as Able and Baker rows of the 46TW-USAFAWC parking ramp: 1.4 munitions authorized. 1.3 munitions are limited to 100 lbs NEW per aircraft of pyrotechnic munitions only.

7.3. Hard Stand 1: (04) 1.2, 1.3 (100,000 lbs), and 1.4 munitions authorized. 1.1 munitions operations have been eliminated due to encroachment. No forward firing munitions authorized.

7.4. Taxiway M-West (Hot Cargo Pad): 1.1, (12) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions

limited to 25,000 lbs. Only a single explosives laden aircraft at a time is authorized. CBU-87 (14) 1.1 are not authorized on this spot unless runway 01/19 is closed to civilian airline traffic. No forward firing munitions authorized for combat aircraft loading/unloading. Limiting factor is joint-use runway at 1250 ft.

7.5. Taxiway M-East: 1.3 and 1.4 munitions authorized. 1.3 munitions are limited to 100 lbs NEW per aircraft of pyrotechnic munitions only.

7.6. Taxiway S: 1.3 and 1.4 munitions authorized. 1.3 munitions are limited to 100 lbs NEW per aircraft of pyrotechnic munitions only.

7.7. 33 FW Ramp: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to AIM-9, AIM-7, and AIM-120 missiles only.

7.8. Taxiway C spots Z-3 and Z-4: (04) 1.2, 1.3, and 1.4 munitions authorized. Forward firing munitions are not authorized.

7.9. Taxiway C spot Z-5: 1.3 and 1.4 munitions authorized. 1.3 munitions limited to 100 lbs NEW of pyrotechnic munitions only.

7.10. Hot Gunline 1 (HGL-1): 1.2 and 1.3 munitions are limited to 10,000 lbs per spot. 1.1 munitions are limited to no more than 8,000 lbs of 1.1 munitions on the gunline at any one time. Reference: Explosives Exemption AFSC-EGLIN AFB-84-E3 dated 18 April 84 for transmitter bldg 947. Forward firing munitions are not authorized on spot 1. CBU-87s (14) 1.1 are only authorized on spot 10.

7.10.1. HGL-1/SPOT 1: Limited to (04) 1.2, 1.3, and 1.4 munitions. Limiting factor is joint-use taxiway at 270 ft.

7.10.2. HGL-1/SPOT 2: Limited to (04) 1.2, 1.3, and 1.4 munitions. Limiting factor is joint-use taxiway at 325 ft.

7.10.3. HGL-1/SPOT 3: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 Rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (A, B or D models), 1 AGM-65 (E, F or G models) or 1 MK-82. Reference AFMAN 91-201, table 4.7. Limiting factor is joint-use taxiway at 400 ft.

7.10.4. HGL-1/SPOT 4: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 Rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (A, B or D models), 1 AGM-65 (E, F or G

models), 1 MK-82 or 1 M117. Reference AFMAN 91-201, table 4.7. Limiting factor is joint-use taxiway at 460 ft.

7.10.5. HGL-1/SPOT 5: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 Rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (A, B or D models), 1 AGM-65 (E, F or G models), 2 MK-82s or 2 M117s. Reference AFMAN 91-201, Table 4.7. Limiting factor is joint-use taxiway at 535 ft.

7.10.6. HGL-1/SPOT 6: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 Rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 2 MK-82s or 2 M117s. Limiting factor is joint-use taxiway at 600 ft.

7.10.7. HGL-1/SPOT 7: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 Rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is joint-use taxiway at 660 ft.

7.10.8. HGL-1/SPOT 8: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 Rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is joint-use taxiway at 715 ft.

7.10.9. HGL-1/SPOT 9: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 2086 lbs NEW. Limiting factor is bldg 940 at 230 ft.

7.10.10. HGL-1/SPOT 10: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 4181 lbs NEW. Limiting factors bldg 940 at 290 ft.

7.10.11. HGL-1/SPOT 11: 1.1, (06) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 4381 lbs NEW. Limiting factor is bldg 942 at 180 ft.

7.10.12. HGL-1/SPOT 12: 1.1, (06) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 6010 lbs NEW. Limiting factor is bldg 942 at 200 ft.

7.11. HGL-1, AFDTC Option 1: The following munitions loading operations may be conducted on HGL-1 spots 1 - 8 providing joint use taxiway R is

closed to civilian airline traffic between taxiways N and P. Overall NEW restrictions on HGL-1 set in para 1.8.10. of this manual apply. Unit commanders or designated representatives must coordinate with Base Operations (46 OSS/OSAO) phone 882-2614/2615 to ensure taxiway R is closed. Forward firing munitions are not authorized on spot 1. CBU-87s (14) 1.1 are authorized on spots 5-10.

7.11.1. HGL-1/SPOT 1: 1.1, (06) 1.2, 1.3 and 1.4 munitions authorized. 1.1 munitions limited to 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is joint-use runway at 1125 ft.

7.11.2. HGL-1/SPOT 2: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 Rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 5 MK-82 or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is joint-use runway at 1190 ft.

7.11.3. HGL-1/SPOT 3: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 1953 lbs NEW. Limiting factor is bldg 939 at 225 ft.

7.11.4. HGL-1/SPOT 4: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 1000 lbs NEW. Limiting factor is bldg 940 at 180 ft.

7.11.5. HGL-1/SPOT 5: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 919 lbs NEW. Limiting factor is bldg 940 at 175 ft.

7.11.6. HGL-1/SPOT 6: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 919 lbs NEW. Limiting factor is bldg 940 at 175 ft.

7.11.7. HGL-1/SPOT 7: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 1085 lbs NEW. Limiting factor is bldg 940 at 185 ft.

7.11.8. HGL-1/SPOT 8: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to a maximum of 1477 lbs NEW. Limiting factor is bldg 940 at 205 ft.

7.12. Hot Gunline 2 (HGL-2): 1.2 and 1.3 munitions are limited to 10,000 lbs NEW per spot. Forward firing munitions are not authorized.

7.12.1. HGL-2/SPOT 1: (06) 1.2, 1.3, and 1.4 munitions authorized. Limiting factor is the Aero Club Parking Ramp at 620 ft.

7.12.2. HGL-2/SPOT 2: 1.1, (06) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 1 MK-82. Reference AFMAN 91-201, table 4.7. Limiting factor is the Aero Club Parking Ramp at 670 ft.

7.12.3. HGL-2/SPOT 3: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 1 MK-82 or 1 M117. Reference AFMAN 91-201, table 4.7. Limiting factor is the Aero Club Parking Ramp at 740 ft.

7.12.4. HGL-2/SPOT 4: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 1 MK-82 or 2 M117s. Reference AFMAN 91-201, Table 4.7. Limiting factor is the Aero Club Parking Ramp at 850 ft.

7.12.5. HGL-2/SPOT 5: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2 MK-82s or 2 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is the Aero Club Parking Ramp at 930 ft.

7.13. Hot Gunline 3 (HGL-3): 1.2 and 1.3 munitions are limited to 10,000 lbs NEW per spot. Forward firing munitions are not authorized on spots 1 and 2.

7.13.1. HGL-3/SPOT 1: 1.1, (12) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is the Aero Club Parking Ramp at 1200 ft.

7.13.2. HGL-3/SPOT 2: 1.1, (12) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is the Aero Club Parking Ramp at 1200 ft.

7.13.3. HGL-3/SPOT 3: 1.1, (08) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 Rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is bldg 977 at 1190 ft.

7.13.4. HGL-3/SPOT 4: 1.1, (08) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is bldg 977 at 1160 ft.

7.13.5. HGL-3/SPOT 5: 1.1, (08) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is bldg 892 at 1080 ft.

7.13.6. HGL-3/SPOT 6: 1.1, (08) 1.2, 1.3 and 1.4 munitions authorized. 1.1 munitions limited to 2.75 rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 2 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is bldg 892 at 1030 ft.

7.13.7. HGL-3/SPOT 7: 1.1, (08) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 2 MK-82s or 2 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is bldg 892 at 970 ft.

7.13.8. HGL-3/SPOT 8: 1.1, (04) 1.2, 1.3 and 1.4 munitions authorized. 1.1 munitions limited to 2.75 rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 2 MK-82s or 2 M117s. Limiting factor is bldg 892 at 920 ft.

7.13.9. HGL-3/SPOT 9: 1.1, (04) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (A, B or D models), 1 AGM-65 (E, F or G models), 2 MK-82s or 2 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is bldg 892 at 860 ft.

7.13.10. HGL-3/SPOT 10: 1.1, (04) 1.2 (50 lbs NEW), 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (A, B or D models), 1 AGM-65 (E, F or G models), 1 MK-82 or 1 M117. Reference AFMAN 91-201, table 4.7. Limiting factor is bldg 892 at 810 ft.

7.14. HGL-6, All Spots: 1.1, (08) 1.2, 1.3, and 1.4 munitions authorized. 1.1 munitions limited to 2.75 rockets, AIM-9s, AIM-7s, AIM-120s, AGM-65s (all models), 5 MK-82s or 5 M117s. Reference AFMAN 91-201, table 4.7. Limiting factor is joint-use runway at 1100 ft.

★8. **Personnel Qualification/Certification:** Only qualified/certified personnel will be permitted to install, remove, or handle explosives. When civilian contractor performance or assets are involved in loading or testing, this action will receive coordination/approval through the Contract Administration office (AFDTC/PKZB) prior to coordination with the Chief of Safety (AFDTC/SE) and Munitions Maintenance (46 EMS/LGMW). Upon request, AFDTC/SE will provide guidance to project personnel, supporting activities, and contractor representatives to make sure that maximum safety measures are taken in all operations.

9. **Authorized Arm/Dearm Areas:** Launch/recovery operations will be performed in the authorized areas immediately adjacent to the active launch and recovery ends of the runways as directed by each maintenance control unit. Locations are specified in attachments 1 and 2.

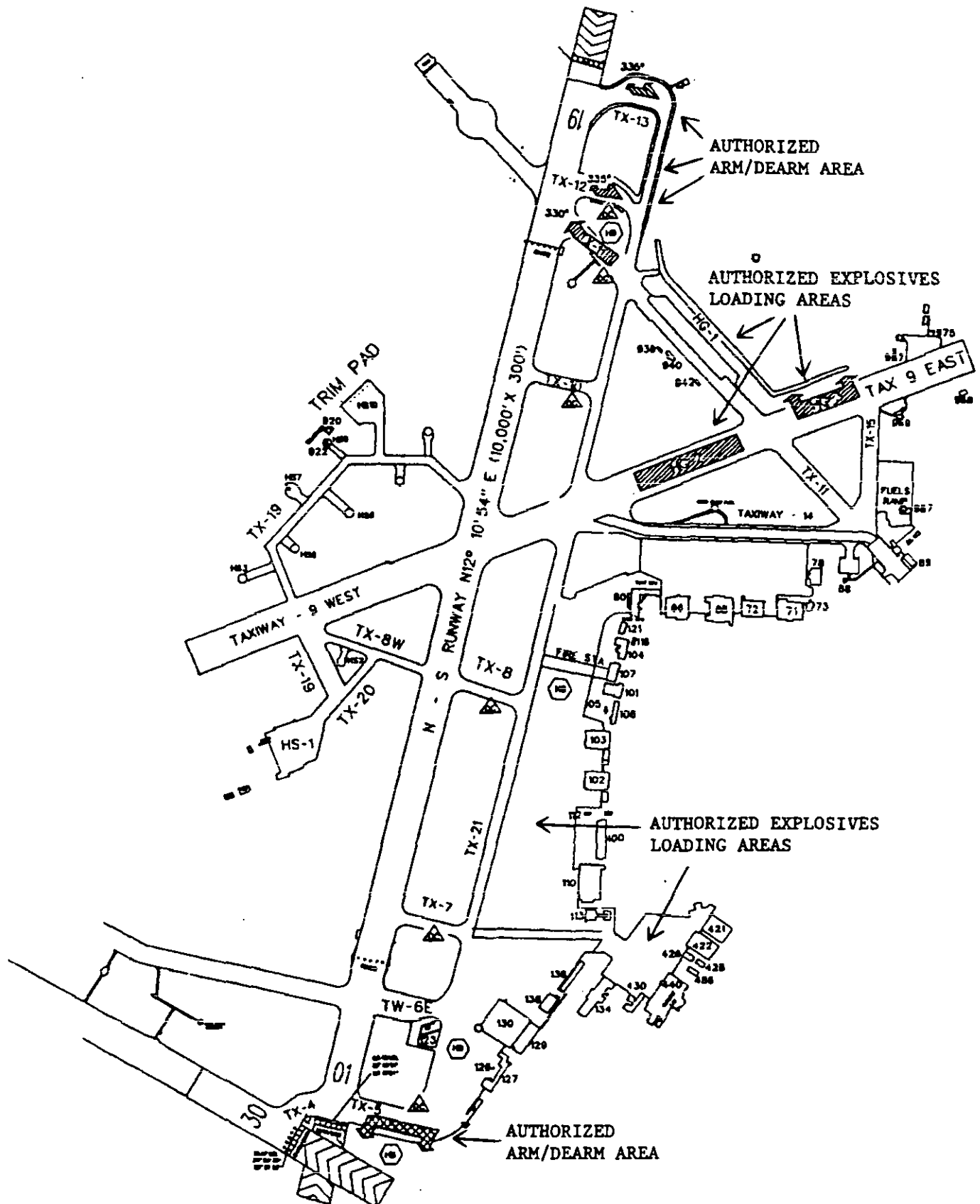
★10. **Weapons Load Crew Training/Ground Mounts:** Training missiles having live guidance and control (G&C) units can be utilized in support of weapons and load crew training, provided they are delivered at the beginning of the training day and picked up when training is completed. Test munitions containing small amounts of 1.4 explosives may be located in hangars 71, 102, 103, and 130 for aircraft compatibility tests with prior permission from AFDTC/SEOW.

WILLIAM B. COLLINS
Chief of Safety

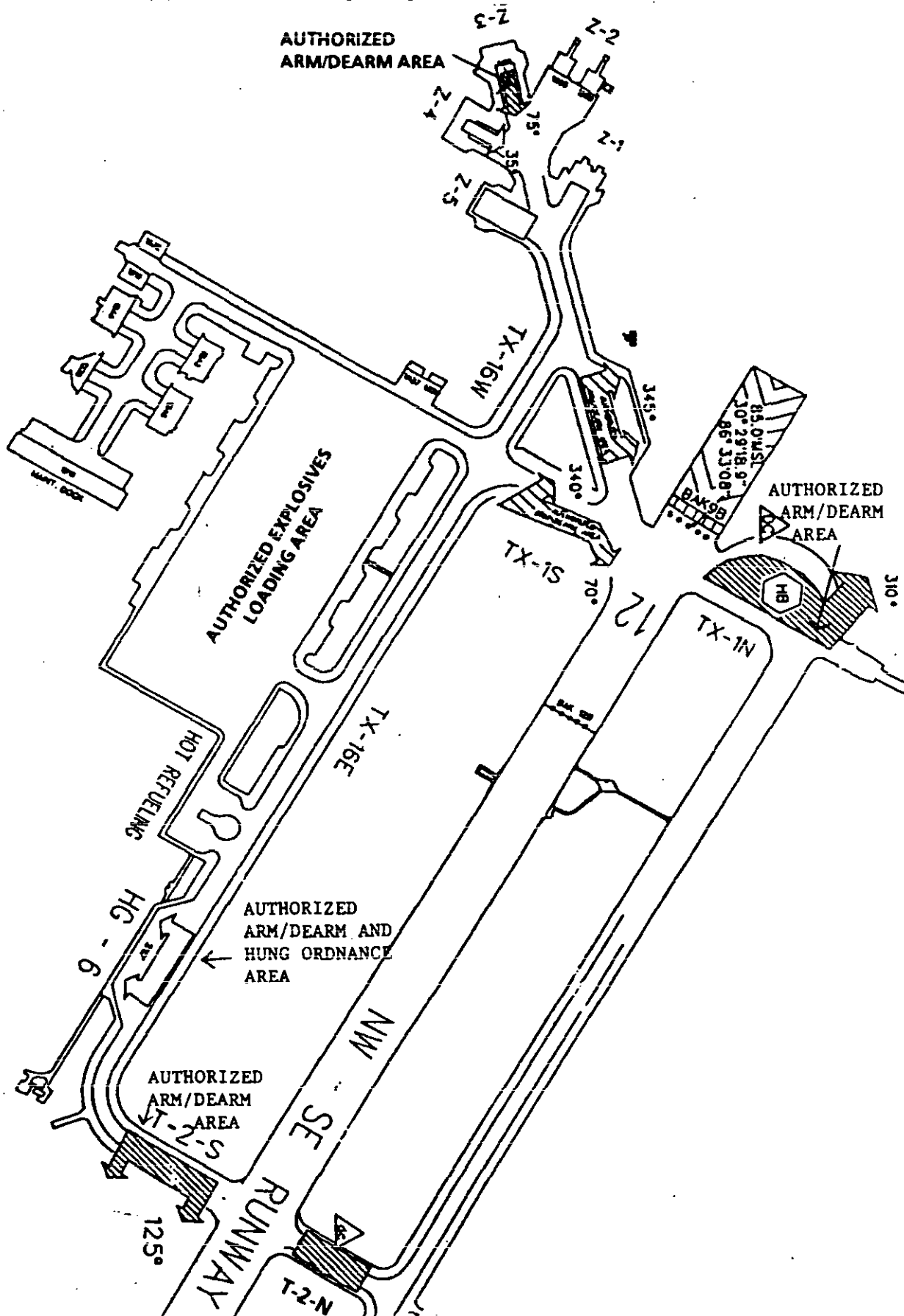
5 Attachments

1. Authorized Loading and Arm/Dearm Areas (46TW & 9 SOS)
2. Authorized Loading and Arm/Dearm Areas (33 FW)
3. Net Explosive Weights & Hazard Classifications
4. Authorized Explosive Laden Vehicle Routes (Eglin Main Base)
5. Authorized Explosive Laden Vehicle Routes (Eglin Reservation)

**AUTHORIZED EXPLOSIVES LOADING AREAS AND ARM/DEARM AREAS
46th TEST WING AND 9th SPECIAL OPERATIONS SQUADRON**



AUTHORIZED EXPLOSIVES LOADING AREAS AND ARM/DEARM AREAS - 33D FIGHTER WING

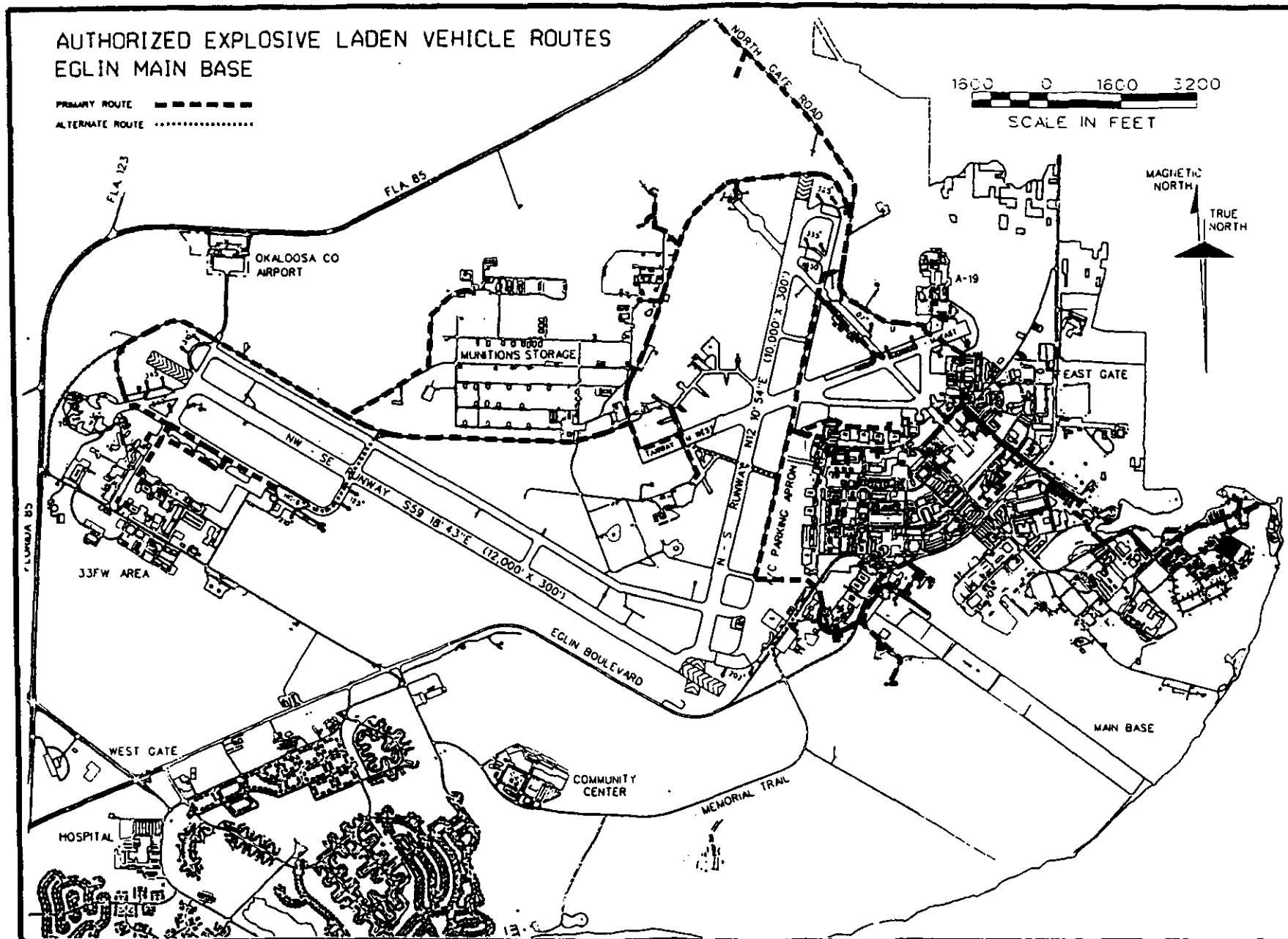


**NET EXPLOSIVE WEIGHTS AND HAZARD CLASSIFICATIONS
FROM T.O. 11A-1-46**

MUNITION	NET EXPLOSIVE WEIGHT	HAZARD CLASSIFICATION
AGM-65A, B, D	85 lbs	1.1
AGM-65E, F, G,	100 lbs	1.1
AGM-130	1282 lbs	1.1*
AIM-7	36 lbs	1.1
AIM-9	7.4 lbs	1.1
AIM-120	29 lbs	1.1
2.75 Rkts (HE)	2 lbs	1.2
CBU-52	146 lbs	(04) 1.2
CBU-58	158 lbs	(04) 1.2
CBU-71	148 lbs	(04) 1.2
MK20	100 lbs	1.1
CBU-87	129 lbs	(14) 1.1
CBU-89	116 lbs	1.1
CBU-97	105 lbs	1.1
M117	386 lbs	1.1
MK82	192 lbs	1.1
MK83	445 lbs	1.1
MK84	945 lbs	1.1
BLU-109	535 lbs	1.1
BLU-113	635 lbs	1.1*

* Denotes interim hazard classification assigned by the AFDTC Systems Safety Office.

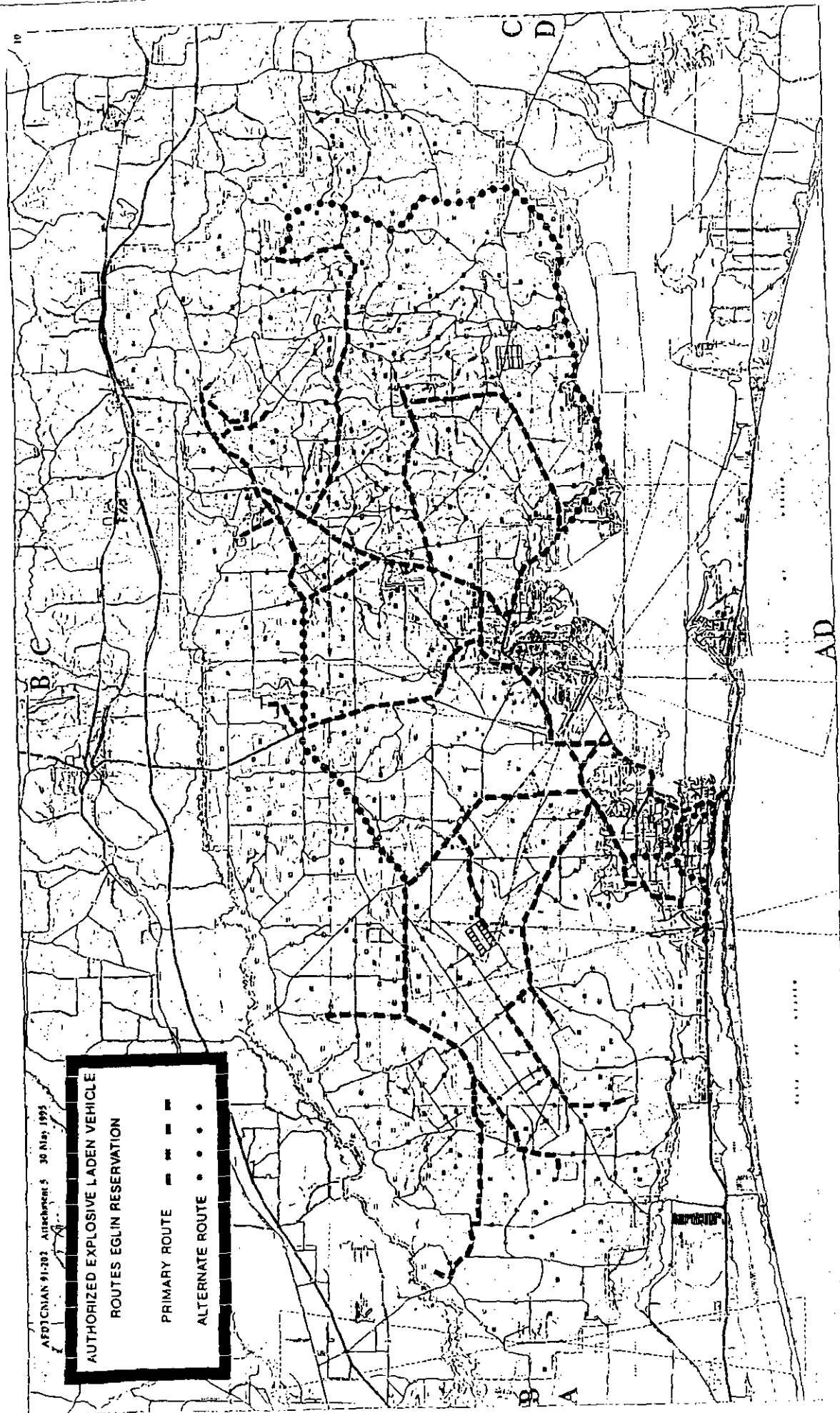
For munitions not listed above, see T.O. 11A-1-46 or contact the AFDTC Systems Safety Office at 882-4157/4317.



AFD/CNAN 91-282, Attachment 5 30 May 1995

**AUTHORIZED EXPLOSIVE LADEN VEHICLE
ROUTES EGLIN RESERVATION**

- PRIMARY ROUTE - - - - -
ALTERNATE ROUTE



T.O. 11A-1-42, General Instructions for Disposal of Conventional Munitions, is on file at the Explosive Ordnance Disposal office in Building 914

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Civil Engineering

**EXPLOSIVE ORDNANCE DISPOSAL
OPEN BURN/OPEN DETONATION PROCEDURES**

This Flight Operating Instruction (FOI) outlines and establishes procedures for Explosive Ordnance Disposal (EOD) personnel engaged in Open Burn/Open Detonation (OB/OD) operations at Eglin Air Force Base. These procedures are formulated to provide a safe and efficient method for conducting EOD operations on Air Armament Center ranges. This FOI applies to all EOD personnel using the OB/OD site.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

1. **References:** AFMAN 91-201, AACMAN 91-202, AAC Plan 32-5, Technical Order (TO) 11A-1-42, TO 60A-1-1-22, TO 60A-1-1-31, Eglin AFB Resource Conservation and Recovery Act Part B, Subpart X Permit (Application), and FOI 32-3002.

2. **General.** Munition disposal operations are normally conducted for units assigned to Eglin AFB on a bimonthly basis. Special disposal operations may be scheduled to meet the needs of Eglin AFB generators. Any military organization outside Eglin AFB that wishes to use the Eglin munitions disposal facility must have a current support agreement. This may be verified by contacting the host tenant support agreement coordinator (96 ABW/XPS) at extension 882-3534. Special disposals will **not** be arranged for these outside agencies, but they will be given the opportunity to participate in disposals for Eglin AFB units.

3. Explosive Limits.

3.1. Limit the maximum quantity of demolition explosives, class 1.1, on the range by the type and quantity of munitions being tested and to quantities consistent with a safe and efficient operation.

3.2. Limit munitions disposal operations on the Eglin Range Complex to a maximum of 3,000 lbs. combined net explosive weight (NEW).

3.3. During the months of November through March, notify Site C-6 anytime a shot on the Eastern Complex exceeds 1,000 lbs. NEW.

4. **Personnel Limits/Qualifications.** In addition to the personnel limits/qualifications listed in FOI 32-3002, individuals participating in OB/OD operations must have current HAZMAT training. (24- or 40-hour HAZWOPER course).

5. Location of Operations. Conduct open detonations within the marked areas on ranges C-52 and C-62 only. Conduct open burns in the kettles on range C-62 only.

6. Responsibilities.

6.1. EOD Supervision Section. With the guidance of the base environmental office (ACC/EM), ensure that an authorized disposal facility is available for use on Eglin AFB. Also ensure that personnel are sufficiently trained to conduct safe and legitimate disposal operations.

6.2. EOD Operations Section. Serve as focal point for all disposal operations. Coordinate and schedule with required outside agencies. (See Attachment 1)

6.3. EOD Unit Environmental Coordinator (UEC). Arrange for recovery and analysis of residue when necessary. This will normally be required for open burn operations only.

6.4. EOD Team Chief for the Disposal Operation. Ensure that all safety and documentation requirements are met. (See Attachments 2, 3 and 4)

6.5. Generators of Munitions to be Treated at the Disposal Facility. Ensure that all required documentation is complete prior to disposal. Generators are also responsible for transporting munitions to the facility.

7. Documentation.

NOTE

The documents listed in 7.1 through 7.4 are the generator's responsibility. If not properly prepared, the associated munitions will **not** be destroyed.

7.1. Military munition items marked for disposal must have required supply documentation (AF Form 191 and DD Form 1348-1 or service equivalent).

7.2. Test munition items from the Energetic Materials Branch of Wright Laboratory are normally listed on the HERD Explosive Waste Manifest with no accompanying supply documentation.

7.3. Munitions items from 46OG will have no supply documentation (AF191).

7.4. All munitions shipped to the disposal facility must be documented on Environmental Protection Agency Form 8700-22, Uniform Hazardous Waste Manifest, and DRMS Form 1851, Restricted Waste Notification.

7.5. Complete an AFTO Form 3579, EOD Report, for each disposal operation. Include an accurate list of items destroyed and a brief narrative describing the operation. Attach the following documents to the AFTO Form 3579:

7.5.1. EPA Form(s) 8700-22.

7.5.2. DRMS Form(s) 1851.

7.5.3. On-scene weather report.

7.6. Provide AAC/EM with a copy of the completed AF Form 3579 with attachments.

8. Sequence of Events. See attachments.

9. Emergency Procedures. In the event of emergency, cease all explosive operations and perform the following as required.

9.1 Perform immediate care procedures for injured personnel. First aid kits are located in each of the EOD truck tool kits.

9.2. Check for explosive hazards in the area and evacuate to a safe location if necessary.

9.3. Notify supporting agencies, including EOD Operations on the Primary EOD net, Range Control on the Range Operations Control Center net or the appropriate range controller on the frequency in use at the location of the emergency where assistance is needed.

9.4. Secure the site and unused explosives for later investigation or storage.

9.5. If appropriate, coordinate Life Flight evacuation of injured personnel through Range Control or EOD Operations.

9.6. EOD Operations will provide additional EOD personnel for mission completion, communication with base agencies or site stabilization as needed.

JEFFREY A. JACKSON, Maj, USAF
Commander, 96th Civil Engineer Squadron

Attachments:

1. EOD Operations Checklist
2. Munitions Inventory Checklist
3. Open Burn/Open Detonation Flow of Events Checklist
4. Open Burn/Open Detonation Operations/Site Inspection Log

EOD OPERATIONS CHECKLIST

- ___ 1. Receive request from generator for disposal operation.
- ___ 2. At least 14 days in advance, contact range scheduling at 882-2991 to schedule missions and range time. A minimum of 2 days will be scheduled, one of which will be a clean-up day. Ensure they include the following support on the mission request:
- a. Jackson Guard
 - b. Medical
 - c. Weather
 - d. Heavy equipment
- ___ 3. Select and notify disposal operation team chief.
4. At least 14 days prior to operation, notify other generators and request list of pending ADRs. Ask them to include explosive class/division and NEW on their list.

GENERATORS	PHONE #	PERSON NOTIFIED
___ a. 46 MXS/LGMWK 2605 Perimeter Road Suite 112 Eglin AFB FL 32542	882-3979 (46 AFK)	_____
___ b. 33 MXS/LGMWHA..... 1109 Nomad Way Suite 103 Eglin AFB FL 32542	882-8946 (33 AFK)	_____
___ c. 919 MXS/LGMVW..... 506 Drone Street Suite 6 Eglin AUXFLD 3 FL 32542	883-6321 FAX 883-6214 (Duke Fld AFK)	_____
___ d. EOD MU-6 Det Panama City... 6703 W Highway 98 Suite 370 Panama City FL 32407-7001	DSN 436-4419 FAX 436-4490 (Navy EOD)	_____
___ e. AFRL/MMNE..... 2306 Perimeter Road Suite 9 Eglin AFB FL 32542	882-9533/3911 (HERD)	_____
___ f. 16 CES/CED..... 272 RED HORSE Road Stop 16 Hurlburt Field FL 32544	884-7193 (EOD)	_____

ATTACHMENT 1 (Continued)

___g. 325 MXS/LGMW DSN 523-4010
 105 Ammo Loop Road EOD 523-3166
 Tyndall AFB FL 32403 (AFK)

___h. CO NAS Pensacola DSN 922-4731
 ATTN: Weapons (AFK)
 190 Radford Boulevard
 Pensacola FL 32508-5217

___i. 46 OG/OGMT/TAMS A-24 882-4658
 ATTN: Ken Mealor (Range A-24 & A-22)
 Bob Dupont 882-4326

___j. AFRL/MNMW 882-57058410

5. Use time line to notify the following agencies. Note person contacted.

AGENCIES	PHONE #	TIMELINE	PERSON NOTIFIED
___a. AAC/EM	882-2879 Ext 445	14 Days	_____
___b. 96 SUPS/LGSFD	882-2924	5 Days	_____
Fuel Delivery (Only uncontaminated diesel fuel will be used for open burns.)			
___c. AAC/PA	882-3931	48 Hours	_____
Public Affairs for press release			
___d. AAC/XPO	882-4087	5 Days	_____
For ADRs involving 33 FW, Hurlburt Field, US Navy or Tyndall AFB.			
___e. 96 SFS/SFO	882-2502	24 Hours	_____
___f. C-6	883-7868	24 Hours	_____
___g. Jackson Guard	882-4164 ext 312	24 Hours	_____

___6. Keep all parties advised on any changes that arise.

7. After all notifications are performed, the ADR team chief will sign the below statement.

I certify that all agencies were notified as per checklist.

Name (print) _____

Signature _____

Date _____

MUNITIONS INVENTORY CHECKLIST

NOTE

A thorough inventory will be conducted to resolve problems prior to start of the operation.

A pre-operation inventory is **not** usually required for HERD disposals. The team chief will review the HERD Explosive Waste Manifest and consult with HERD personnel prior to the operation.

Inventories for large generators may require one full day to complete. Schedule accordingly.

Inventories for off-base generators will normally be accomplished by locally assigned EOD personnel. If this is not possible the inventory will be conducted at the range on the day of disposal.

All quantities and control numbers **must** match. If not, inform the generator of the discrepancy and advise them the problem must be resolved before the items are transported to the range.

- ___ 1. Check ADR listing(s) and copies of AF Form 191 against TO 11A-1-42 to determine disposal procedures. (burn, detonation or shipment)
- ___ 2. Contact participating agencies to schedule inventory. The inventory should be conducted 2 to 3 days prior to range day. This will give generators sufficient time to process EPA Form 8700-22 and DRMS Form 1851.
3. Check the AF Form 191, DD Form 1348-1 and DD Form 1577 for the following:
 - ___ a. Nomenclature
 - ___ b. Stock Number
 - ___ c. Lot Number
 - ___ d. Document Number
 - ___ e. ADR Control Number
4. After the inventory, remind the generator of the following:
 - ___ a. EPA Form 8700-22, Uniform Hazardous Waste Manifest (if required).
 - ___ b. DRMS Form 1851, Restricted Waste Notification (if required).

ATTACHMENT 2 (Continued)

____c. Meeting date, time and place to convoy to the range.

____5. After completing all checklist items, ADR team chief will sign the below statement.

I certify that all items were completed as per checklist.

Name (print)_____

Signature_____

Date_____

OPEN BURN/OPEN DETONATION FLOW OF EVENTS CHECKLIST

2 - 3 DAYS OUT

- ___ 1. Ensure all parties are aware of date, time and place of operation. It is recommended that all participants meet at the incoming explosive cargo pad near the munitions storage area before conveying to the range.
- ___ 2. Advise Resources Flight on the type and amount of explosives required.
- ___ 3. Check with EOD Operations to ensure that all required support from Attachment 1 will be available.
- ___ 4. Have EOD Unit Environmental Coordinator (UEC) arrange for recovery drums and coordinate residue analysis with Bio-Environmental Engineering. (Open burn only)

RANGE DAY

- ___ 1. Load/Inspect all necessary equipment and explosives. (See Attachment 4)
- ___ 2. At predetermined meeting place, verify that required documentation has been completed by all generators.
- ___ 3. Convoy to range using proper Explosive Laden Vehicle routes.
- ___ 4. Establish contact with the appropriate range control. Ensure they have a radio with the EOD net and verify that access to the range has been restricted.
- ___ 5. Obtain initial weather report from on scene weather personnel. Ensure weather parameters are within the EPA permit requirements; wind speed between 3 and 15 mph and no inversion forecast. Operations will not proceed without the required weather parameters. Obtain a copy of the report for the EOD UEC.
- ___ 7. Give safety briefing to all personnel on site.
- ___ 8. Fill out OB/OD Site Inspection Log. Return to EOD UEC.
- ___ 9. If necessary, conduct inventory for any off-base generators IAW Attachment 2.

NOTE

Munitions personnel may be used during unloading/inventory operations if properly briefed and supervised.

NOTE

All empty containers and packing material **will be** removed from the range by munitions personnel/generators.

As a final control, the quantity in each container should be checked against the quantity on the DD Form 1577. If it doesn't match, don't accept it.

- ___ 10. Begin unpacking and sorting munitions.
- ___ 11. Prepare munitions for disposal IAW TO 11A-1-42.

OPEN BURN

- ___ 1. Remove burn kettle tarps.
- ___ 2. Ensure drains on kettle are closed.
- ___ 3. Load a minimum of 4 feet of dunnage into the burn kettle.
- ___ 4. Load munitions on top of dunnage. Maintain a minimum freeboard of 12 inches from top of munitions to top of burn kettle.
- ___ 5. Close burn kettle doors.
- ___ 6. Pour diesel fuel over munitions and dunnage. Use only uncontaminated fuel. A maximum of 50 gallons can be used in each kettle.
- ___ 7. Prepare a remote initiation system.
- ___ 8. Clear all nonessential personnel to the safe area.
- ___ 9. Notify EOD control and obtain clearance from ROCC prior to initiation.
- ___ 10. Prime/initiate remote system and exit to safe area.
- ___ 11. Remain on range until all evidence of burning ceases.

OPEN DETONATION**NOTES**

A maximum of three detonation points may be set up at one time.
Ensure each detonation will not disrupt subsequent detonations.

Use a minimum 10 minute delay between detonations.

Position munitions so the major fragment
hazard is pointing away from the safe area.

- ___ 1. Remove burn kettle tarps to prevent blast/fragment damage.
- ___ 2. Ensure detonation site is within the marked boundary area of C-62 or TT-8 (the Cats Eye area) of C-52.
- ___ 3. Set up munitions for detonation.
- ___ 4. Clear all nonessential personnel to the safe area.
- ___ 5. Prepare a remote initiation system.
- ___ 6. Notify ROCC and request proper overhead clearance.
- ___ 7. Prime/initiate remote system and exit to safe area.
- ___ 8. Check detonation site for unconsumed munitions and explosives.

POST OPERATIONS

- 1. After a minimum of 12-hours, preferably 24-hours, check burn furnace.
 - ___ a. Sift contents to separate munitions residue from ash, then package in separate recovery drums.
 - ___ b. Detonate residue still containing explosives.
 - ___ c. Wash down burn furnace walls, retaining water in bottom.
 - ___ d. Have Bio-Environmental Engineering collect samples of ash and water for analysis.
 - ___ e. Seal ash drums and place them inside one of the burn kettles while awaiting analysis.

- ___ 2. Replace tarps on burn kettles.
- ___ 3. After analysis, process residue as follows:
 - ___ a. Transport munitions residue to DRMO for turn in as scrap.
 - ___ b. Bag clean ash and place in a dumpster.
 - ___ c. Pump clean water to drums, transport to and pour into a sanitary sewer system.
 - ___ d. Ship contaminated ash and water to a hazardous materials landfill. Coordinate with AAC/EM for requirements.
- ___ 4. Have designated individual sign EPA Form 8700-22 (block 20) as facility operator. Retain last copy for EOD files and return form to generator.
- ___ 5. Keep copy of Restricted Waste Notification, DRMS Form 1851, for EOD files.
- ___ 6. Sign copies of all required supply documents and return to generators.
- ___ 7. Complete AFTO Form 3579. Send an info copy of 3579 and all attachments given to ACC/EM within 5 work days.
- ___ 8. After completing all checklist items, ADR team chief will sign the below statement.

I certify that all items were completed as per checklist.

Name (print)_____

Signature_____

Date_____

OB/OD OPERATIONS/SITE INSPECTION LOG

AREA/LOCATION	DATE/TIME				NAME AND SIGNATURE OF INSPECTOR	SIGNATURE OF EOD NCOIC
SECURITY DEVICES (before and after each use)	SAT	UNSAT	N/A	NOT INS	PROBLEMS OBSERVED	DATE CORRECTIVE ACTION TAKEN/ DESCRIPTION OF ACTION
Security of Gates						
Warning Signs						
Evidence of Tampering						
Evidence of Damage						
Other						
COMMUNICATION EQUIPMENT (as used)						
Radios						
Other						
SAFETY/EMERGENCY EQUIPMENT (before and after use)						
Fire Extinguishers						
Absorbents/Spill Kits						
First Aid Equipment/Supplies						
Portable Eye Wash Station						
Leather Gloves, Boots, Face Shields, Protective Glasses						
MOBILE EQUIPMENT (per use)						
Routine Maintenance						
Brakes						
Tires						
Hydraulics						

OB/OD AREAS (before/after each use)	SAT	UNSAT	N/A	NOT INS	PROBLEMS OBSERVED	DATE CORRECTIVE ACTION TAKEN/DESCRIPTION OF ACTION
Emergency Lights						
Horns/Sirens						
Engine						
On-Board Emergency Equipment						
Other						
Burn Kettles to Include Cover						
Detonation Pits						
Deterioration of Roadway						
Gate Areas						
Other						

I certify that all items were completed as per checklist.

Name (print) _____

Signature _____

Date _____



3 January 2000



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EXPLOSIVE ORDNANCE DISPOSAL
RANGE OPERATIONS

This Flight Operating Instruction (FOI) outlines and establishes procedures for Explosive Ordnance Disposal (EOD) personnel engaged in test support, range clearances and disposal operations at Eglin Air Force Base. These procedures are formulated to provide a safe and efficient method for conducting EOD operations on Air Armament Center ranges. This FOI applies to all EOD personnel assigned to the 96th Civil Engineer Squadron EOD Flight.

SUMMARY OF REVISIONS

This FOI has been updated to include emergency procedures and pre-operation checklist. Other additions and deletions were administrative in nature and do not change the scope of this FOI.

1. **References.** AFMAN 91-201, AACI 91-201, AAC S1 to AFMAN 91-201, AACMAN 91-202, AACI 91-203, AACI 32-9001, TO 11A-1-42, TO 60A-1-1-22, TO 60A-1-1-31 and test directives (TDs).

2. Explosive Limits.

2.1. **Limits.** Limit the maximum quantity of demolition explosives, class 1.1, on the range by the type and quantity of munitions being tested and to quantities consistent with a safe and efficient operation.

2.1.1. Limit munitions disposal operations on the Eglin Range Complex to a maximum of 3,000 lbs. combined net explosive weight (NEW).

2.1.2. During the months of November through March, notify Site C-6 anytime a shot on the Eastern Complex exceeds 1,000 lbs. NEW.

2.1.3. Prior to detonating charges in excess of 2,000 lbs. NEW, check with EOD Operations to confirm favorable weather conditions.

3. Personnel Limits/Qualifications.

3.1. **EOD Operations Manning.** Man EOD Operations anytime an EOD team is working on range in support of any scheduled range mission or any mission involving the escort of personnel on the Eglin complex. Approve deviations for special circumstance through EOD supervision or operations.

3.2. Test Support. A minimum of two EOD technicians (one 7-skill level and one 5-skill level) will support scheduled tests. 3-skill levels qualified on tasks pertaining to the mission may

participate in test missions as additional personnel and may be used in place of a 5-skill levels as long as a 7-skill level acts as team chief for the operation. During operations performed on static fire ranges, one of the EOD technicians will act as the safety backup.

3.3. Range Clearance, Demo and Recovery. A minimum of two EOD technicians (one 7-skill level and one 5-skill level) will support range, demo and recovery missions. 3-skill levels qualified on tasks pertaining to the mission may participate in missions as additional personnel and may be used in place of 5-skill levels as long as a 7-skill level acts as team chief for the operation. Limit maximum participants to a number consistent with a safe and efficient operation. Minimum EOD technician to non-EOD technician (workers/test support personnel) ratio during range clearance operations is 1/5.

3.4. Escort Missions. A minimum of two EOD technicians (one 7-skill level and one 5-skill level or one 3-skill level qualified on tasks pertaining to mission) will support scheduled missions.

3.4.1. Qualified 5-skill levels may team chief missions if approved through supervision.

4. Location of Operations. Conduct operations at locations on the Eglin AFB range complex selected by Range Scheduling or EOD Operations or scheduled in the Daily Operations Order.

5. Documentation.

5.1. As directed by Air Force policy, conduct all operations in support of testing, disassembly or modification of explosives IAW approved and detailed procedures.

5.2. Hand-carry a copy of the TD and associated publications to the range on all missions.

5.3. Sign-out all TDs and technical orders (TOs) on AF Forms 614 and protected IAW AFI 31-401. Place all documents in plastic folders and conduct a 100% inventory of classified prior to departure from range.

5.4. Return all TDs and TOs to their proper place and remove and line through the AF Form 614 after each mission. Do not leave classified TDs in desk drawers or in team areas unattended.

6. Mission Coordination.

6.1. Prior to the start of each mission, consult with the project officer and EOD Operations for an update on mission requirements/range times. Ensure mission requirements have not changed, munitions configurations are the same as outlined in TDs and all special EOD requirements are known.

6.2. Ensure all aspects of the mission, equipment and explosive requirements are identified and briefed to team members prior to start of range mission.

6.3. Plan route to range to ensure proper explosive routes and range roads are available/open. Allow sufficient time to arrive NLT 15 minutes prior to designated range time.

6.4. Upon arrival, check in with range controller. Again, ensure munitions configurations are the same as those outlined in the TDs.

6.5. Upon completion of operations and departure from range, inform the range controller and EOD Operations. Upon return to the shop, fill out the TD history and mission slip. Return the TD to file and mission slip to operations, brief operations on any unusual incidents. If the same project is scheduled for the next day, contact the appropriate team and brief on planned activities.

7. General Procedures/Safety Precautions. The team chief is responsible for the safety of his/her personnel. Complacency, unsafe practices or violation of written directives will not be tolerated.

7.1. Escorting Non-EOD Personnel.

7.1.1. Brief escorted personnel on the type of ordnance and associated hazards and not to touch items they may encounter. Provide specific instruction on where to park and drive.

7.1.2. Clearly mark items found during escort missions for disposal at the earliest opportunity.

7.1.3. If escorted personnel refuse to observe precautions as briefed by EOD, cease support, withdraw to a safe distance and inform EOD Operations and range control that EOD support is withdrawn.

7.2. Explosive Operations.

7.2.1. Do not begin explosive operations on ranges until 1/2 hour after sunrise. Cease operations 1/2 hour prior to official sunset. Address and obtain approval for all explosive operations during darkness through AAC/SEOW.

7.2.2. Before firing any shot, obtain clearance from Range Operations Control Center (ROCC) (radio net call sign "**Wolfcall**") via the range controller. In the event no range controller is available, request a clearance directly from ROCC or via EOD Operations (for unscheduled missions, request "Z" clearance). Notify ROCC upon entering and exiting designated clearance area.

7.2.3. Observe withdrawal distances IAW Attachment 1, Safety Distances for Personnel and Aircraft, or applicable TD safety annex.

7.2.4. Observe wait times of **30 minutes** for electrically primed misfires and **1 hour** for non-electrically primed misfires.

7.2.5. Cease all explosive operations when there is lightning within 5 nautical miles. Withdrawing explosives from storage is prohibited if lightning is within 5 nautical miles.

However, explosives may be returned to the storage area if the team chief deems it reasonable and safe.

7.2.6. **Only one EOD technician** will check the disposal location/detonation point after a planned detonation with a second person acting as a safety backup. This rule also applies when checking items kicked out by a detonation. Deviation for the sake of training is not authorized.

7.2.7. Do not proceed down range if the detonation results in a range fire. Inform the range controller as to the extent of the fire so appropriate notifications can be made. If necessary, schedule time at least **12 hours** after the fire has been extinguished to check the disposal location/detonation point.

7.2.8. Do not approach a pyrotechnic or incendiary ordnance burn area for **12 hours** after the cessation of burning. Unconsumed explosive components may still be present after burning apparently ceases. Wait one hour before approaching ordnance suspected of containing pyrotechnic or incendiary components (e.g., black powder expelling charge) when accomplishing disposal by detonation.

7.3. Disposal of Dud Munitions.

7.3.1. Make positive identification before moving any munitions item by hand.

7.3.2. Dispose of in place or clearly mark for later disposal dud munitions that can not be safely moved.

7.3.3. With the exception of BDU 50s, blow the nose and tail of all inert bombs prior to removal from range or transportation to scrap yards.

7.3.4. Probe BDU 33 and MK 106 practice bombs IAW TO. Segregate and detonate bombs containing live spotting charges prior to removal from range.

7.4. Priming Operations.

7.4.1. Maintain a minimum distance of 100 feet between sites used to prepare charges and the closest known dud.

7.4.2. Do not exceed a maximum of 25 individual shots per operation.

7.4.3. The maximum number of shots to be placed by any one individual is five.

7.4.4. Do not use trucks to transport primed charges.

7.4.5. Ensure a two-way radio or phone is available during all explosive operations. Do not conduct radio transmissions within 50 feet of electro-explosive devices (100 feet when using truck radios).

8. Recovery of Munitions from Ranges.

8.1. Recovery.

8.1.1. Coordinate excavation with heavy equipment on any Eglin testing area with AAC/SE. Do not attempt recovery of ordnance from below the surface in areas where live ordnance may exist except as specifically approved by AAC/SE in coordination with EOD.

NOTE:

If an excavator or armor is required, have project officer arrange for transportation.

8.1.2. Attempt recovery of munitions from below the surface only under the following conditions:

8.1.2.1. When using heavy equipment (manually operated) to gain access to inert munitions suspected of containing live fuzing, dig to within 2 feet (no closer) of buried munitions. The excavation should be 4 feet in diameter for every 1 foot of depth and be of a sufficient size to permit easy access by EOD personnel. Accomplish final excavation manually, conduct additional probing as required.

NOTE

If, in the opinion of the senior EOD technician present, such danger exists that safe access to the munition/fuze cannot be performed, the item will not be recovered.

8.1.2.2. Perform recovery of inert munitions (identified by known mission or test with which the item is associated) with inert fuzing by manual or mechanical means. Further disassembly may be performed manually and necessary components turned over to test officers for analysis. Inert bombs should possess an "INERT" marking stamped or welded either on the base or just behind the rear lug.

8.1.2.3. Perform recovery and fuze removal of inert munitions with live fuzes and inert boosters (known by the mission) by manual means, only if the fuze the fuze is hand-safe. Perform remote recovery and fuze removal of inert munitions with live fuzes and inert boosters (not hand-safe) or with live fuzes and live boosters unless otherwise stated in TDs or approved by AAC/SEOW.

8.1.2.4. Do not manually recover live bombs or other live munitions suspected of containing live fuzes and live boosters, especially fuzes containing delayed action or cocked striker.

Accomplish recovery of such items with special equipment so that EOD procedures can be completed remotely.

NOTE

Assumption of liability for damages and replacement costs for robotics systems should have been addressed at test planning meetings or Hazard Review Boards prior to the commencing of operations. If assumption of liability has not been confirmed, ensure the project officer is aware that future support could be impeded in the event of robotics system damage.

8.2. Demilitarization. Accomplish demilitarization of munitions items that could possibly contain or disclose classified components or information.

9. Static Fire Ranges.

NOTE

These procedures apply to exploding bridge wire (EBW) firing systems including, but not limited to, FS-10/17/43 and those already installed at static fire ranges.

9.1. Safety Precautions.

9.1.1. Wait **30 minutes** for EBW system misfires.

9.1.2. Prior to returning the arm/safe key(s) to the designated fire control system operator, ensure all personnel have returned to the range firing bunker or safe area and the range controller can account for everyone involved with the mission

9.1.3. Wait **30 minutes** before approaching a misfire. After applicable wait time, one EOD technician, with a second technician acting as a safety backup, will approach the test munition(s) to determine what caused the misfire.

9.1.4. In the event of an aborted firing attempt, if system has been charged, wait **5 minutes** prior to removing a shorting plug.

WARNING

If shorting plug is removed prior to wait time, **do not** under any circumstance reinsert shorting plug; the circuit may fire.

NOTE

Some munitions may have the initiating devices installed prior to delivery. If initiating devices can be removed, do so prior to connecting test item to firing line. If they cannot be removed, the Senior EOD technician can elect to have a lead wire installed onto the EBW long enough to allow the hookup personnel to utilize some sort of cover before final hookup to the firing system.

9.1.5. All systems must have the capability to monitor voltage on the capacitor discharge unit.

9.2. Procedures.

9.2.1. Review hookup/arming procedures with electronic technicians who set up firing system.

9.2.2. Ensure firing system is/has been tested.

9.2.3. Ensure range console arm/safe switch or control box is in the "SAFE" position.

9.2.4. Obtain firing system and x-ray key(s). Maintain control of key(s) until ready to fire shot.

9.2.5. Ensure short to discharge plug is installed in capacitor discharge unit (CDU) if applicable.

9.2.6. Ensure firing line is shorted at CDU if applicable.

9.2.7. Proceed to the test site and conduct stray voltage/continuity checks of the firing line.

9.2.8. Prepare munitions for detonation IAW TDs and/or project officer's instructions (see safety precautions and applicable standard operating procedures). Allow only essential personnel down range during munitions preparation operations. This step may be accomplished simultaneously with the firing system testing.

9.2.9. Clear unnecessary personnel from the test site and verify clearance has been obtained from the range controller.

9.2.10. Perform continuity check of initiation device(s).

9.2.11. Connect initiating device(s) to main firing line. Install the initiating device(s) into the munition(s).

9.2.12. Remove short on firing line at CDU, if applicable.

9.2.13. Remove short to discharge connector, if applicable.

9.2.14. Return to the main firing bunker and report to the range controller/designated firing system operator. After accounting for all personnel, return the console key(s) and CDU short to discharge plug, if applicable, to the fire system operator.

9.2.15. After the shot, obtain console firing keys and x-ray system key, if applicable. Clear down range area of explosive hazards before allowing project/range personnel to enter area.

9.2.16. When second event systems are integrated into the firing circuit, they must be disconnected prior to final hookup. This isolation must be at a sufficient distance from the shot so personnel reconnecting the second event system will be protected if the shot inadvertently fires.

9.3. Misfire Procedures.

9.3.1. Obtain the short to discharge plug(s)/key(s) from the range controller.

9.3.2. Ensure firing line is disconnected/shorted in control if applicable.

9.3.3. Observe voltage monitor to ensure voltage drops off of the system.

9.3.4. Observe a **30 minute** wait period.

9.3.5. Proceed down range. Insert the shorting plug into the CDU, if applicable. Insert shorting wire on CDU for firing line, if applicable.

9.3.6. Remove the RP detonator from the main charge/test item.

9.3.7. Disconnect RP detonator from firing circuit.

9.3.8. Investigate reason for misfire before proceeding with any other shots.

9.4. EOD support on Range 74 normally amounts to recovery of fuzes, disposal of explosives residue and disposal of dud fired rocket motors. After check-in with the range and receiving mission support requirements from the range controller or test officer, stand by until assistance is requested. Contractor personnel are responsible for preparation, final hook-up and misfires of test items on the sled track.

9.5. EOD support for the water tank on Range 80A may include disposal of dud munitions. Contractor personnel are responsible for removing the dud(s) from the water tank.

10. Emergency Procedures. In the event of an emergency, perform the following actions:

10.1. Perform immediate care procedures for injured personnel. First Aid kits are located in each of the EOD truck tool kits.

10.2. Check for explosive hazards in the area and evacuate to safe location if necessary

10.3. Notify supporting agencies, including EOD Operations (call-sign **EOD Ops**) on the Primary EOD net, Range Control (call-sign **Wolfcall**) on the ROCC net or the appropriate range controller (e.g., 52 Control) on the frequency in use at the location of the emergency where assistance is needed.

10.4. Secure the site and unused explosives for later investigation or storage.

10.5. If appropriate, coordinate Life Flight or ambulance evacuation of injured personnel through Range Control or EOD Operations. EOD Operations maintains locations on the Eglin Range complex capable of handling helicopter extraction.

10.6. EOD Operations will provide additional EOD personnel for mission completion, communication with base agencies or site stabilization as needed.

11. Equipment. Special equipment requirements are spelled out in TDs and TOs. Follow the EOD Tools and Equipment Usage policy letter dated 13 OCT 99 when checking out equipment from the equipment element.

JEFFREY A JACKSON, Major, USAF
Commander, 96th Civil Engineer Squadron

Attachment

1. Safety Withdrawal for Personnel and Aircraft
2. Pre-Operation Checklist

SAFETY DISTANCE FOR PERSONNEL AND AIRCRAFT

To establish a safe horizontal withdrawal distance for personnel and vertical danger areas for aircraft, EOD personnel will ensure the following distances are used as a guide when obtaining clearance for disposal operations on all Eglin ranges. It is the responsibility of the ROCC to clear the airspace above the detonation point and the responsibility of EOD and the range chief to ensure ground space is clear before any shots are fired. The following distances have been approved by AAC Safety and are used as a guide when destroying ordnance involved in support of test missions:

<u>TYPE ITEM</u>	<u>SAFETY DISTANCE</u>
Test Items	See Test Directive / Safety Annex
Any non-frag producing shot minimum distance	1,250 ft
Any frag producing shot minimum distance	2,500 ft
<u>Dispensers / Submunitions</u>	
Full Dispenser	7,500 ft
Armor Defeating CBU dispenser items	See Test Directive / Safety Annex
Submunitions	2,500 ft
<u>Projectiles</u>	
Ammunition up to 40mm	2,500 ft
Projectile larger than 40mm to 5"	4,000 ft
<u>Rockets</u>	
2.75" Rockets warheads and equivalent items	2,500 ft
Rocket warheads up to 5"	4,000 ft
<u>Missiles</u>	
AIM -7 Sparrow	4,000 ft
AIM - 9 Sidewinder	4,000 ft
AIM - 120 AMRAAM	4,000 ft
AGM-65 Maverick (blast warhead)	5,000 ft
<u>Bombs</u>	
750 lb Demo bomb w/ spotting charge	3,500 ft
Bombs & Projectiles up to 5"	4,000 ft
MK series bombs up to MK 83	7,500 ft
MK 84 / BLU-109	10,000 ft

NOTE: All nonessential equipment and vehicles should be outside the prescribed fragmentation distance or withdrawn within available shelter, e.g., bunkers, hills, etc. Consider the possibility of a range fire and have the equipment/vehicles protected from the fire.

PRE-OPERATION CHECKLIST

This pre-operation checklist should be filled out and briefed before conducting any explosive operation on the Eglin Range complex. The purpose of the checklist is to maximize safety during operations by ensuring personnel are aware of all explosive hazards involved and the appropriate actions to take in the event of an emergency.

1. Explosive and Personnel Limits.

1.1. Operation to be performed and munitions involved:

1.2. Location where operation is to be performed: _____

1.3. Hazard/Class Division: _____ Compatibility Group: _____

1.4. Fire-fighting Direction Symbol: _____

1.5. Explosive Limits: _____ Explosive Hazards: _____

NOTE

Highest overall Hazard Class/Division present on range/in building should be taken into account when evacuating personnel and determining fire-fighting requirements.

1.6. Withdrawal Distance: _____ (Feet) Evacuation Assembly Point: _____

1.1 - 4000'

1.2 - 2500'

1.3 - 600'

1.4 - 300'

1.7. Personnel Limits:

Supervisors: _____ Workers: _____ Visitors: _____

NOTE

Remember Cardinal Principal of Explosive Safety,
"Expose the minimum amount of people to the minimum
amount of explosives for the minimum amount of time".

1.8. Conduct briefing to ensure personnel are familiar with all the hazards involved prior to commencing.

2. Equipment Requirements.

2.1. Identify special requirements (e.g., laser goggles, multimeter/galvo kit):

2.2. General requirements:

- ☐ Water
- ☐ Gloves
- ☐ Sun-screen
- ☐ Safety glasses (explosive ops)
- ☐ Portable radio

3. General Safety Precautions/Requirements.

NOTE

All personnel wanting to proceed down range after commencement of the operation will do so only after obtaining approval from the person in charge of the operation. Personnel will then be briefed on all hazards present.

3.1. Brief escorted personnel on type of ordnance and associated hazards and not to touch items they may encounter. Provide specific instructions on where to drive and park.

3.2. If escorted personnel refuse to observe precautions as briefed by EOD, cease support, withdraw to a safe distance and inform EOD Operations and Range Control that EOD support is withdrawn.

3.3. Do not begin explosive operations on ranges until 1/2 hour after sunrise. Cease operations 1/2 hour prior to official sunset.

3.4. Observe withdrawal distances IAW Attachment 1, Safety Distances for Personnel and Aircraft, or applicable TD safety annex.

3.5. Observe wait times of **30 minutes** for electrically primed misfires and **1 hour** for non-electrically primed misfires.

3.6. Cease all explosive operations when there is lightning within 5 nautical miles. Withdrawing explosives from storage is prohibited if lightning is within 5 nautical miles. However, explosives may be returned to the storage area if the team chief deems it reasonable and safe.

3.7. **Only one EOD technician** will check the disposal location/detonation point after a planned detonation with a second person acting as a safety backup. This rule also applies when checking items kicked out by a detonation. Deviation for the sake of training is not authorized.

3.8. Do not proceed down range if the detonation results in a range fire. Inform the range controller as to the extent of the fire so appropriate notifications can be made. If necessary, schedule time at least **12 hours** after the fire has been extinguished to check the disposal location/ detonation point.

3.9. Do not approach a pyrotechnic or incendiary ordnance burn area for **12 hours** after the cessation of burning. Unconsumed explosive components may still be present after burning apparently ceases. Wait one hour before approaching ordnance suspected of containing pyrotechnic or incendiary components (e.g., black powder expelling charge) when accomplishing disposal by detonation.

3.10. Make positive identification before moving any munitions item by hand.

3.11. Dispose of in place or clearly mark for later disposal dud munitions that cannot be safely moved.

3.12. Maintain a minimum distance of 100 feet between sites used to prepare charges and the closest known dud.

3.13. Do not exceed a maximum of 25 individual shots per operation.

3.14. The maximum number of shots to be placed by any one individual is five.

3.15. Do not use trucks to transport primed charges.

3.16. Ensure a two-way radio or phone is available during all explosive operations. Do not conduct radio transmissions within 50 feet of electro-explosive devices (100 feet when using truck radios).

3.17. Remove rings and watches prior to starting any explosive operation.

NOTE

Personnel handling electrically initiated explosive devices will avoid wearing clothes made of material, which have high static generating characteristics. Ground yourself prior to handling these explosives; work on grounded surfaces if possible.

3.18. Do not handle munitions roughly (e.g., rolled, tumbled, dropped, dragged or thrown).

3.19. If an abnormal condition occurs, the operation will be stopped and qualified guidance obtained.

4. Emergency Procedures.

4.1. In the event of an accident or fire, _____ will notify the appropriate agency (e.g. fire department, ambulance, range controller or EOD Operations). Evacuate all nonessential personnel _____ feet as required.

4.2. _____ and _____ will fight the fire and note the time munitions become engulfed in flames.

NOTE

Do not fight fires involving 1.1 munitions
engulfed in flames unless attempting a rescue.

4.3. _____ will sound the alarm and go to the designated point and direct emergency responding personnel to the scene.

4.4. _____ and _____ will secure the site of unused explosives for later investigation or storage.

4.5. When evacuation is accomplished, account for everyone involved in the operation.

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EOD TRAINING PROGRAM

This program is taught at Eglin Air Force Base, Florida and is for all EOD personnel within DOD. All personnel must pass the basic courses and supervisory personnel must pass the two additional advanced courses. All EOD personnel are required to complete annual reviews of the basic course. The course outline is as follows:

1. EXPLOSIVE ORDNANCE DISPOSAL SPECIALIST/TECHNICAN CAREER FIELD

A. Progression in Career Ladder 3E8X1

B. Duties of AFSCs 3E830/50/70

2. SECURITY

A. Communications Security (COMSEC)

(1) Classifying Information and Using MAJCOM/SOA EEF1s

(2) Preventing Security Violations

(3) Observing Security Precautions

B. Operations Security (OPSEC)

(1) Background and History of OPSEC

(2) Definition of OPSEC

(3) Relationship of OPSEC to Other Security Programs (including COMSEC, Information Security, and Physical Security)

(4) Common OPSEC Vulnerabilities

(5) OPSEC Significance of Unclassified Data and Procedures

(6) Specific OPSEC Vulnerabilities of AFSC 464XO

C. Resources Security

(1) EOD Publications

(a) Storage Requirements

(b) Control/Access Procedures

(c) Destruction/Disposition Requirements

(2) Protection of Firearms and Munitions

(3) Arming and Use of Force by USAF Personnel

APPENDIX J

Official List of Protected Species at Eglin AFB, August 1, 1997

Scientific Name	Common Name	1997 Status	
		State	Federal
Fish			
<i>Acipenser oxyrhynchus desotoi</i>	Gulf sturgeon	SSC	T
<i>Etheostoma Okaloosae</i>	Okaloosa darter	E	E
<i>Pteronotropis welaka</i>	Bluenose shiner	SSC	-
Amphibians and Reptiles			
<i>Alligator mississippiensis</i>	American alligator	SSC	T/SA
<i>Ambystoma cingulatum</i>	Flatwoods salamander	-	SC
<i>Caretta caretta</i>	Atlantic loggerhead turtle	T	T
<i>Chelonia mydas</i>	Atlantic green turtle	E	E
<i>Dermochelys coriacea</i>	Leatherback turtle	E	E
<i>Drymarchon corais couperi</i>	Eastern indigo snake	T	T
<i>Eretmochelys imbricata</i>	Hawksbill turtle	E	E
<i>Gopherus polyphemus</i>	Gopher tortoise	SSC	SC
<i>Hyla andersonii</i>	Pine barren tree frog	SSC	-
<i>Lepidochelys kempi</i>	Kemp's Ridley turtle	E	E
<i>Macrochelys temminckii</i>	Alligator snapping turtle	SSC	SC
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	SSC	SC
<i>Rana capito servosa</i>	Dusky gopher frog	SSC	SC
<i>Rana okaloosae</i>	Florida bog frog	SSC	SC
Birds			
<i>Aimphila aestivalis</i>	Bachman's sparrow	-	SC
<i>Charadrius alexandrinus tenuirostri</i>	Southeastern snowy plover	T	SC
<i>Charadrius melodus</i>	Piping plover	T	T
<i>Egretta caerulea</i>	Little blue heron	SSC	-
<i>Egretta thula</i>	Snowy egret	SSC	-
<i>Egretta tricolor</i>	Tricolor heron	SSC	-
<i>Eudocimus albus</i>	White ibis	SSC	-
<i>Falco sparverius paulus</i>	Southeastern American kestrel	T	SC
<i>Haliaeetus leucocephalus</i>	Bald eagle	T	T
<i>Pelecanus occidentalis</i>	Brown pelican	SSC	-
<i>Picoides borealis</i>	Red-cockaded woodpecker	T	E
<i>Rynchops niger</i>	Black skimmer	SSC	-
<i>Speotyto cunicularia</i>	Burrowing owl	SSC	-
<i>Sterna antillarum</i>	Least tern	T	-
Mammals			
<i>Balaenoptera musculus</i>	Blue whale	E	E
<i>Balaenoptera physalus</i>	Fin whale	E	E
<i>Eubalaena glacialis</i>	Northern right whale	E	E
<i>Megaptera novaeangliae</i>	Humpback whale	E	E
<i>Peromyscus polionotus leucocephalus</i>	Santa Rosa beach mouse	-	SC
<i>Peromyscus polionotus peninsularis</i>	St. Andrew's beach mouse	E	C
<i>Physeter macrocephalus</i>	Sperm whale	E	E
<i>Trichechus manatus</i>	West Indian (Florida) manatee	E	E
<i>Ursus americanus floridanus</i>	Florida black bear	T	C
Plants			
<i>Aristida simpliciflora</i>	Southern three-awn grass	-	SC
<i>Asclepias viridula</i>	Southern milkweed	T	SC
<i>Aster chapmanii</i>	Chapman's aster	-	SC
<i>Aster eryngiifolius</i>	Coyote-thistle aster	-	SC
<i>Asplenium platyneuron</i>	Ebony spleenwort	T	-
<i>Baptisia calycosa var villosa</i>	Pineland wild indigo	T	-
<i>Bumelia lycioides</i>	Buckthorn	T	-

APPENDIX J, CONTINUED

Official List of Protected Species at Eglin AFB, August 1, 1997

Scientific Name	Common Name	1997 Status ^a	
		State	Federal
Plants (Continued)			
<i>Calamovilfa curtissii</i>	Curtiss' sand grass	T	SC
<i>Calamintha dentata</i>	Toothed savory	-	SC
<i>Calycanthus floridus var floridus</i>	Sweet shrub	E	-
<i>Carex baltzelli</i>	Baltzell's sedge	T	SC
<i>Chrysopsis godfreyi</i>	Goodfrey's golden aster	-	SC
<i>Chrysopsis gossypina ssp cruiseana</i>	Cruise's golden aster	E	SC
<i>Cladonia perforata</i>	Florida perforate cladonia	E	E
<i>Cleistes divaricata</i>	Rosebud orchid	T	-
<i>Drosera intermedia</i>	Water sundew	T	-
<i>Dryopteris ludoviciana</i>	Florida shield fern	T	-
<i>Epigaea repens</i>	Trailing arbutus	E	-
<i>Hexastylis arifolia</i>	Heartleaf	T	-
<i>Hymenocallis henryae</i>	Panhandle spider lily	E	SC
<i>Ilex amelanchier</i>	Serviceberry holly	T	-
<i>Illicium floridanum</i>	Florida anise	T	-
<i>Kalmia latifolia</i>	Mountain laurel	T	-
<i>Lachnocaulon digynum</i>	Bogbuttons	-	SC
<i>Lilium catesbaei</i>	Catesby's lily	T	-
<i>Lilium iridollae</i>	Panhandle lily	E	SC
<i>Lindera subcoriacea</i>	Bog spice bush	E	SC
<i>Linum westii</i>	West's flax	E	SC
<i>Lupinus westianus</i>	Gulfcoast lupine	T	SC
<i>Lycopodium alopecuroides</i>	Foxtail club moss	T	-
<i>Lycopodium appressum</i>	Southern club moss	T	-
<i>Lycopodium carolinianum</i>	Slender club moss	T	-
<i>Lycopodium prostratum</i>	Prostrate club moss	T	-
<i>Macranthera flammea</i>	Hummingbird flower	E	-
<i>Magnolia ashei</i>	Ashe's magnolia	E	-
<i>Magnolia pyramidata</i>	Pyramidal mogolia	E	-
<i>Malaxis unifolia</i>	Green adder's-mouth	E	-
<i>Matela alabamensis</i>	Alabama spiney pod	E	SC
<i>Medeola virginiana</i>	Indian cucumber-root	E	-
<i>Monotropa hypopithys</i>	Pine sap	E	-
<i>Myriophyllum laxum</i>	Piedmont water-milfoil	-	SC
<i>Nuphar luteum ssp ulvaceum</i>	West Florida cow lily	-	SC
<i>Panicum nudicaule</i>	Naked-stemmed panic grass	-	SC
<i>Pinguicula lutea</i>	Yellow butterwort	T	-
<i>Pinguicula planifolia</i>	Chapman's butterwort	E	SC
<i>Pinguicula primuliflora</i>	Primrose-flowered butterwort	T	-
<i>Platanthera belphegioides</i>	White fringed orchid	T	-
<i>Platanthera ciliaris</i>	Yellow fringed orchid	T	-
<i>Platanthera cristata</i>	Golden fringed orchid	T	-
<i>Platanthera integra</i>	Southern yellow fringeless orchid	E	-
<i>Platanthera nivea</i>	Snowy orchid	T	-
<i>Pogonia ophioglossoides</i>	Rose pogonia	T	-
<i>Polygonella macrophylla</i>	Large-leaved jointweed	T	SC
<i>Rhexia lutea</i>	Yellow meadowbeauty	T	-
<i>Rhexia parviflora</i>	Small-flowered meadow beauty	E	SC
<i>Rhexia salicifolia</i>	Panhandle meadowbeauty	-	SC
<i>Rhodoendron austrinum</i>	Orange azalea	E	-
<i>Rhynchospora crinipes</i>	Alabama breakrush	-	SC
<i>Sabal minor</i>	Dwarf palmetto	T	-
<i>Sarracenia leucophylla</i>	White-top pitcherplant	E	SC

APPENDIX J, CONTINUED

Official List of Protected Species at Eglin AFB, August 1, 1997

Scientific Name	Common Name	1997 Status ^a	
		State	Federal
Plants (Continued)			
<i>Sarracenia purpurea</i>	Decumbent pitcherplant	T	-
<i>Sarracenia psittacina</i>	Parrot pitcherplant	T	-
<i>Sarracenia rubra</i>	Sweet pitcherplant	T	-
<i>Selaginella arenicola</i>	Sand spikemoss	T	-
<i>Selaginella ludoviciana</i>	Gulf spikemoss	T	-
<i>Spiranthes laciniata</i>	Lace-lip ladies tresses	T	-
<i>Stewartia malacodendron</i>	Silky camellia	E	-
<i>Tephrosia mohrii</i>	Pineland hoary pea	T	SC
<i>Tipularia discolor</i>	Crane-fly orchid	T	-
<i>Xyris drummondii</i>	Drummond's yellow-eyed grass	-	SC
<i>Xyris longisepala</i>	Karst pond yellow-eyed grass	E	SC
<i>Xyris scabrifolia</i>	Harper's yellow-eyed grass	T	SC
<i>Zephyranthes</i>	Rain lilies	T	-

Status designations are as follows:

E = Endangered

T = Threatened

T/SA = Threatened by Similarity in appearance

C = Candidate for listing

SSC = Species of special concern

SC = Species of concern

- = No designated status



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 96TH AIR BASE WING (AFMC)
EGLIN AIR FORCE BASE FLORIDA

RECEIVED

APR 19 2001

NORTHWEST FLORIDA
DEP

11 Jan 01

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H046-006176-003

MEMORANDUM FOR AAC/EMCP (Mr. Stephen Kauffman)

FROM: 96 AMDS/SGPB

SUBJECT: HazWaste Analysis Letter for HW-0138-K (EM Control # 00AACHW9059)

1. On 28 Dec 00, SSgt Michael Massey of Bioenvironmental Engineering (SGPB) collected a sample at DRMO (Building 525), cleanout of TSDF from washing floors for waste characterization/disposal guidance. SGPB Sample No. GT000821 was assigned to the sample (Project No. HW-0138-K). The sample was sent to KEMRON Environmental Services for Toxicity Characteristic Leaching Procedure (TCLP) metals, pH, flashpoint, and volatiles in response to the sample request letter from AAC/EMCP dated 8 Dec 00. The results are discussed in paragraph 2 below.

2. Findings/Conclusions: KEMRON analysis indicates that the sample does not exceed the TCLP metals, pH, flashpoint, or volatile limits according to the Code of Federal Regulations Title 40 Part 261.21-24 (40 CFR 261.21-24), *Characteristics of Hazardous Waste*. The KEMRON laboratory report is attached to this letter.

3. If you have any questions please contact A1C Abbott at (850) 883-8607 ext. 265 or by e-mail at Jeremy.Abbott@eglin.af.mil.

JANIS K. KISSEL, SSgt, USAF
NCOIC, Community Environment Section
96th Aerospace Medicine Squadron

Attachment:
KEMRON Analysis Report, Project No. HW-0138-K

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Bioenvironmental Engineering Eglin AFB
96 AMDS/SGPB
504 W. Choctawhatchee Ave. #1
Eglin AFB, FL 32542
Attention: Jeremy Abbott

Login #: L0012598
Report Date: 01/03/01
Work ID: HW-0138-K
Date Received: 12/29/00

PO Number:
Account Number: EGLIN-552

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0012598-01	GT000821		

All results on solids/sludges are reported on a dry weight basis, where applicable,
unless otherwise specified. This report shall not be reproduced,
except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

David L. Bumgarner

Certified By
David L. Bumgarner

01

01-11-01

01-11-01 10:54 PCVD

KEMRON
ENVIRONMENTAL SERVICES

**KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE**

L0012598

CHAIN OF CUSTODY:

The chain of custody number was 16029.

SHIPMENT CONDITIONS:

The chain of custody was received sealed in a cooler. The cooler temperature was 2° C.

SAMPLE MANAGEMENT:

All samples were received intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

REVIEWED:

G. M. Thomas DATE: 1-2-01

Login #L0012598
January 3, 2001 04:23 pm

KEMRON ENVIRONMENTAL SERVICES

TCLP METALS

Lab Sample ID: L0012598-01
Client Sample ID: GT000821
Site/Work ID: HW-0138-K

Matrix: Water
Collected: 12/28/00 13:00
Units: mg/L

COC Info: 16029/
TCLP Ext. Date: 01/02/01

Analyte	Result	Qualifiers	RL	Regulatory Limit	Method	Prep. Date	Analysis Date	Time	Dil Type
Silver.....		ND	0.10	5	6010B\3015\1311	01/02/01	01/03/01	12:54	N/A
Arsenic.....		ND	1.0	5	6010B\3015\1311	01/02/01	01/03/01	12:54	N/A
Barium.....		ND	0.10	100	6010B\3015\1311	01/02/01	01/03/01	12:54	N/A
Cadmium.....		ND	0.10	1	6010B\3015\1311	01/02/01	01/03/01	12:54	N/A
Chromium.....		ND	0.20	5	6010B\3015\1311	01/02/01	01/03/01	12:54	N/A
Mercury.....		ND	0.005	0.2	7470\7470\1311	01/02/01	01/03/01	10:47	N/A
Lead.....		ND	1.0	5	6010B\3015\1311	01/02/01	01/03/01	12:54	N/A
Selenium.....		ND	1.0	1	6010B\3015\1311	01/02/01	01/03/01	12:54	N/A

Login #L0012598
January 3, 2001 04:23 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L0012598-01
Client Sample ID: GT000821
Site/Work ID: HW-0138-K

Matrix: Water
Collected: 12/28/00 13:00

COC Info: 16029/

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Ignitability.....	Degrees F	203	>		1	N/A	JWR	01/02/01		1010
pH	UNITS	6.59			1	N/A	JMM	12/29/00	15:00	150.1

RL = Reporting Limit

Login #L0012598
January 3, 2001 04:23 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0012598-01
Client Sample ID: GT000821
Site/Work ID: HW-0138-K
Matrix: Water

Dil. Type: N/A
COC Info: 16029/
Date Collected: 12/28/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 01/03/01 Time: 11:11

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M23975

Method: 8260B\5030
Run ID: R109880
Batch: WG89669

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone.....	ug/L	ND		100	1
71-43-2	Benzene.....	ug/L	ND		5.0	1
108-86-1	Bromobenzene.....	ug/L	ND		5.0	1
74-97-5	Bromochloromethane.....	ug/L	ND		5.0	1
75-27-4	Bromodichloromethane.....	ug/L	ND		5.0	1
75-25-2	Bromoform.....	ug/L	ND		5.0	1
74-83-9	Bromomethane.....	ug/L	ND		10	1
78-93-3	2-Butanone.....	ug/L	ND		100	1
104-51-8	n-Butylbenzene.....	ug/L	ND		5.0	1
135-98-8	sec-Butylbenzene.....	ug/L	ND		5.0	1
98-06-6	tert-Butylbenzene.....	ug/L	ND		5.0	1
75-15-0	Carbon disulfide.....	ug/L	ND		5.0	1
56-23-5	Carbon tetrachloride.....	ug/L	ND		5.0	1
108-90-7	Chlorobenzene.....	ug/L	ND		5.0	1
124-48-1	Chlorodibromomethane.....	ug/L	ND		5.0	1
75-00-3	Chloroethane.....	ug/L	ND		10	1
110-75-8	2-Chloroethyl vinyl ether.....	ug/L	ND		10	1
67-66-3	Chloroform.....	ug/L	ND		5.0	1
74-87-3	Chloromethane.....	ug/L	ND		10	1
95-49-8	2-Chlorotoluene.....	ug/L	ND		5.0	1
106-43-4	4-Chlorotoluene.....	ug/L	ND		5.0	1
96-12-8	1,2-Dibromo-3-chloropropane.....	ug/L	ND		5.0	1
106-93-4	1,2-Dibromoethane.....	ug/L	ND		5.0	1
74-95-3	Dibromomethane.....	ug/L	ND		5.0	1
95-50-1	1,2-Dichlorobenzene.....	ug/L	ND		5.0	1
541-73-1	1,3-Dichlorobenzene.....	ug/L	ND		5.0	1
106-46-7	1,4-Dichlorobenzene.....	ug/L	ND		5.0	1
75-71-8	Dichlorodifluoromethane.....	ug/L	ND		10	1
75-34-3	1,1-Dichloroethane.....	ug/L	ND		5.0	1
107-06-2	1,2-Dichloroethane.....	ug/L	ND		5.0	1
75-35-4	1,1-Dichloroethene.....	ug/L	ND		5.0	1
156-59-2	cis-1,2-Dichloroethene.....	ug/L	ND		5.0	1
156-60-5	trans-1,2-Dichloroethene.....	ug/L	ND		5.0	1
78-87-5	1,2-Dichloropropane.....	ug/L	ND		5.0	1
142-28-9	1,3-Dichloropropane.....	ug/L	ND		5.0	1
594-20-7	2,2-Dichloropropane.....	ug/L	ND		5.0	1
10061-01-5	cis-1,3-Dichloropropene.....	ug/L	ND		5.0	1
10061-02-6	trans-1,3-Dichloropropene.....	ug/L	ND		5.0	1
563-58-6	1,1-Dichloropropene.....	ug/L	ND		5.0	1

RL = Reporting Limit

Login #L0012598
January 3, 2001 04:23 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L0012598-01
Client Sample ID: GT000821
Site/Work ID: HW-0138-K
Matrix: Water

Dil. Type: N/A
COC Info: 16029/
Date Collected: 12/28/00

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 01/03/01 Time: 11:11

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M23975

Method: '8260B\5030
Run ID: R109880
Batch: WG89669

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene.....	ug/L	ND		5.0	1
591-78-6	2-Hexanone.....	ug/L	ND		10	1
87-68-3	Hexachlorobutadiene.....	ug/L	ND		5.0	1
98-82-8	Isopropylbenzene.....	ug/L	ND		5.0	1
99-87-6	p-Isopropyltoluene.....	ug/L	ND		5.0	1
108-10-1	4-Methyl-2-pentanone.....	ug/L	ND		10	1
75-09-2	Methylene chloride.....	ug/L	ND		5.0	1
91-20-3	Naphthalene.....	ug/L	ND		10	1
103-65-1	n-Propylbenzene.....	ug/L	ND		5.0	1
100-42-5	Styrene.....	ug/L	ND		5.0	1
630-20-6	1,1,1,2-Tetrachloroethane.....	ug/L	ND		5.0	1
79-34-5	1,1,2,2-Tetrachloroethane.....	ug/L	ND		5.0	1
127-18-4	Tetrachloroethene.....	ug/L	ND		5.0	1
108-88-3	Toluene.....	ug/L	ND		5.0	1
87-61-6	1,2,3-Trichlorobenzene.....	ug/L	ND		5.0	1
120-82-1	1,2,4-Trichlorobenzene.....	ug/L	ND		5.0	1
71-55-6	1,1,1-Trichloroethane.....	ug/L	ND		5.0	1
79-00-5	1,1,2-Trichloroethane.....	ug/L	ND		5.0	1
79-01-6	Trichloroethene.....	ug/L	ND		5.0	1
75-69-4	Trichlorofluoromethane.....	ug/L	ND		10	1
96-18-4	1,2,3-Trichloropropane.....	ug/L	ND		5.0	1
95-63-6	1,2,4-Trimethylbenzene.....	ug/L	ND		5.0	1
108-67-8	1,3,5-Trimethylbenzene.....	ug/L	ND		5.0	1
108-05-4	Vinyl acetate.....	ug/L	ND		10	1
75-01-4	Vinyl chloride.....	ug/L	ND		10	1
95-47-6	o-Xylene.....	ug/L	ND		5.0	1
108-38-3	m-Xylene.....	ug/L	ND		5.0	1
106-42-3	p-Xylene.....	ug/L	ND		5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane.....	94.5	(86 - 118%)
1,2-Dichloroethane-d4.....	97.1	(80 - 120%)
Toluene-d8.....	93.7	(88 - 110%)
4-Bromofluorobenzene.....	94.0	(86 - 115%)

RL = Reporting Limit

Order #: 00-12-598
January 3, 2001 04:23 pm

**KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS**

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG89634	R109892	L0012598-01		Water	DIG-METALS	6010B\3015\1311	28-DEC-2000	Digestion
WG89647	R109893	L0012598-01		Water	DIG-METALS	7470\7470\1311	28-DEC-2000	Digestion
WG89658	R109831	L0012598-01		Water	Ignitability	1010	28-DEC-2000	Conventional
WG89659	R109880	L0012598-01		Water	Volatile Organics	8260B\5030	28-DEC-2000	Volatile - GC/MS
WG89676	R109893	L0012598-01		Water	Mercury, TCLP	7470\7470\1311	28-DEC-2000	Metals - AA
WG89690	R109887	L0012598-01		Water	pH (Laboratory)	150.1	28-DEC-2000	Conventional
WG89692	R109892	L0012598-01		Water	ICP-METALS	6010B\3015\1311	28-DEC-2000	Metals - ICP

KEMRON ANALYST LIST

Ohio Valley Laboratory

01/02/2001

ABW - ANGELA B. WIGAL	HV - HEMA VILASAGAR	SJK - SINDY J. KINNEY
ADH - ANGELA D. HURST	JAQ - JEROMY A. QUESENBERY	SLP - SHERI L. PFALZGRAF
ADK - ALISHA D. KINDLER	JAW - JOYCE A. WITHERS	SLT - STEPHANIE L. TEPE
AJF - AMANDA J. FICKIESEN	JKM - JUNE K. MORRIS	SMW - SHAUNA M. WELCH
ALT - ANN L. THAYER	JKW - JANE K. WARDEN	SPL - STEVE P. LEARN
AMT - ANDREA M. TUCKER	JLH - JANICE L. HOLLAND	SPS - STEVE P. SWATZEL
ARS - ANGELINA R. SCOTT	JMM - JARROD M. MARTIN	TJH - TIM J. HOEFELICH
BJM - BARRY J. MYERS	JMT - JOY M. THOMAS	TLD - TERESA L. DAVIS
BRG - BRENDA R. GREGORY	JMW - JOHN M. WASS	TMM - TAMMY M. MORRIS
CAF - CHERYL A. FLOWERS	JRM - JAY R. MCDUGAL	VC - VICKI COLLIER
CAK - CHERYL A. KOELSCH	JWR - JOHN W. RICHARDS	
CBN - CHARLES B. NOLL	JWS - JACK W. SHEAVES	
CEB - CHAD E. BARNES	JYH - JI Y. HU	
CLC - CHRYS L. CRAWFORD	KDS - KRISTI D. STONE	
CLK - CARL L. KING	KHR - KIM H. RHODES	
CLW - CHARISSA L. WINTERS	KRA - KATHY R. ALBERTSON	
CMS - CRYSTAL M. STEVENS	KSL - KELLY S. LAUER	
CRC - CARLA R. COCHRAN	LBM - LAWRENCE B. MCSWEGAN	
CSH - CHRIS S. HILL	LKN - LINDA K. NEDEFF	
DAM - DAN A. MUSGRAVE	LLB - LORI L. BRADLEY	
DAS - DALLAS A. SULLIVAN	LSA - LUCINDA S. ARNOLD	
DAT - DEBBIE A. TORNES	LSB - LESLIE S. BUCINA	
DEL - DON E. LIGHTFRITZ	MDA - MICHAEL D. ALBERTSON	
DEV - DAVID E. VANDENBERG	MDC - MICHAEL D. COCHRAN	
DGB - DOUGLAS G. BUTCHER	MDG - MELISSA D. GRIMES	
DIH - DEANNA I. HESSON	MEF - MIKE E. FLANAGAN	
DLA - DENISE L. ADAMS	MES - MARY E. SCHILLING	
DLB - DAVID L. BUMGARNER	MLS - MICHAEL L. SCHIMMEL	
DLN - DEANNA L. NORTON	MMB - MAREN M. BEERY	
DLP - DOROTHY L. PAYNE	MSW - MATT S. WILSON	
DLR - DIANNA L. RAUCH	NJB - NATALIE J. BOOTH	
DMD - DAVID M. DYE	PML - PAULA M. LEIDY	
DP - DEANNA L. PIERSON	PVH - PETER V. HARRIS	
DST - DENNIS S. TEPE	RDC - REBECCA D. CUTLIP	
DTK - DEENA T. KELLEY	REF - RON E. FERTILE	
EAN - ELIZABETH A. NICHOLSON	REK - ROBERT E. KYER	
EAW - ELIZABETH A. WEBER	RJW - RHONDA J. WITTEKIND	
ECL - ERIC C. LAWSON	RLW - RON L. WATSON	
EIE - ELIZABETH I. EAGLE	RSH - RENEE S. HENNES	
GSG - GALEN S. GEORGE	RSS - REGINA S. SIMMONS	
GWH - GEORGE W. HUTCHISON	RVC - RUTH V. CALLIHAN	
HD - HEATH DENNIS	RWC - ROD W. CAMPBELL	

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative	NR	Analyte is not required to be analyzed
B	Present in the method blank	NS	Not spiked
C	Confirmed by GC/MS	P	Concentration >40% difference between The two GC columns
CG	Confluent growth		
D	The analyte was quantified at a secondary dilution factor	QNS	Quantity not sufficient to perform analysis
DL	Surrogate or spike was diluted out	R	Analyte exceeds regulatory limit
E	Estimated concentration due to sample matrix interference	RA	Re analysis confirms reported results
FL	Free liquid	RE	Re analysis confirms sample matrix Interference
I	Semiquantitative result, out of instrument calibration range	S	Analyzed by method of standard addition
J	Present below nonanal reporting limit	SMI	Sample matrix interference on surrogate
L	Sample reporting limits elevated due to matrix interference	SP	Reported results are for spike compounds only
M	Duplicate injection precision not met	TNTC	Too numerous to count
N	Tentatively Identified Compound (TIC)	U	Analyzed for but not detected
NA	Not applicable	W	Post-digestion spike for furnace AA out Of control limits
ND	Not detected at or above the reporting limit (RL)	Z	Can not be resolved from isomer.***
NF	Not found	+	Correlation coefficient for the MSA is less Than 0.995
NFL	No free liquid	<	Less than
NI	Non-ignitable	>	Greater than
		*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

ORGANIC QA/QC

Workgroup #: W089069
Method: 8260B
Matrix: WATER
Units: ug/L

Run Date: 1/3/01
Instrument ID: HPMS6
RLK FLNM: 6M121971.D
LCS FLNM: 6M121972.D

Sample Name: 12-606-05
Sample FLNM: 6M121977.D
MS FLNM: 6M121978.D
MSD FLNM: 6M121979.D

LCS DF: 1
Sample DF: 50
MS DF: 50
MSD DF: 50

Target Analytes	MDL ug/L	CONCENTRATION, PPB				PERCENT RECOVERY												OUTLIERS			
		LCS Spike				Blank				LCS				LCS				Blank	LCS	Sample	MSD
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	%	%	%	%	%	%	%	%				
dichlorodifluoromethane	0.25	ND	21.77	20.0	ND	923.36	1021.31	1000.0	ND	108.9	10.0	151.0	ND	92.3	10.0	151.0	10.3				
chloromethane	0.56	ND	23.68	20.0	ND	965.13	1131.79	1060.0	ND	118.4	49.0	129.0	ND	96.5	113.2	49.0	129.0	15.9			
vinyl chloride	0.48	ND	23.01	20.0	ND	1023.49	1139.73	1060.0	ND	115.1	57.0	135.0	ND	102.3	114.0	57.0	135.0	10.7			
bromomethane	0.25	0.68	22.01	20.0	ND	791.88	1008.50	1060.0	0.68	111.1	58.0	140.0	ND	79.2	100.9	58.0	140.0	24.1			
chloroethane	0.22	ND	23.22	20.0	ND	1049.83	1138.50	1060.0	ND	116.1	69.0	126.0	ND	105.0	113.9	69.0	126.0	8.1			
trichlorofluoromethane	0.46	ND	21.48	20.0	ND	912.46	929.74	1060.0	ND	107.4	67.0	152.0	ND	91.2	93.0	67.0	152.0	1.9			
isoprene	0.19	ND	NS	NS	NS	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
acrolein	16.46	ND	NS	NS	NS	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
1,1,2-trichloro-1,2,2-trifluoroethane	0.26	ND	NS	NS	NS	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
acetone	1.84	ND	12.94	20.0	ND	592.83	619.04	1060.0	ND	64.7	40.0	142.0	ND	59.3	61.9	40.0	142.0	4.3			
1,1-dichloroethene	0.27	ND	21.63	20.0	ND	963.74	1030.05	1060.0	ND	108.2	81.0	136.0	ND	96.4	103.0	81.0	136.0	6.7			
dimethyl sulfide	0.56	ND	NS	NS	NS	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
iodomethane	0.14	ND	21.33	20.0	ND	805.91	1264.16	20.0	ND	106.7	NA	NA	ND	4029.6	6320.8	NA	NA	NA			
methylene chloride	0.60	ND	21.60	20.0	ND	1003.89	1046.40	1060.0	ND	108.0	76.0	125.0	ND	100.4	104.6	76.0	125.0	4.1			
carbon disulfide	0.15	ND	21.86	20.0	ND	894.37	1003.77	1060.0	ND	109.3	70.0	138.0	ND	89.4	100.4	70.0	138.0	11.5			
acrylonitrile	0.69	ND	NS	NS	NS	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
methyl tert-butyl ether	0.46	ND	21.33	20.0	ND	1025.83	1036.86	1060.0	ND	106.7	NA	NA	ND	102.6	103.7	NA	NA	NA			
trans-1,2-dichloroethene	0.21	ND	22.22	20.0	ND	1023.65	1033.70	1060.0	ND	111.1	86.0	135.0	ND	102.4	105.4	86.0	135.0	2.9			
n-hexane	0.23	ND	18.22	20.0	ND	682.60	731.78	1060.0	ND	91.1	63.0	137.0	ND	68.3	73.2	58.1	141.9	7.0			
vinyl acetate	4.43	ND	21.10	20.0	ND	1024.36	1041.53	1060.0	ND	105.5	10.0	136.0	ND	102.4	104.2	10.0	136.0	1.7			
1,1-dichloroethane	0.18	ND	21.01	20.0	ND	995.52	1013.72	1060.0	ND	105.1	84.0	127.0	ND	99.6	101.4	84.0	127.0	1.8			
2-butanone	1.17	ND	16.84	20.0	ND	752.12	807.08	1060.0	ND	84.2	61.0	137.0	ND	75.2	80.7	61.0	137.0	7.0			
2,2-dichloropropane	0.23	ND	22.17	20.0	ND	930.71	957.50	1060.0	ND	110.9	79.0	130.0	ND	93.1	95.8	79.0	130.0	2.8			
cis-1,2-dichloroethene	0.14	ND	20.95	20.0	ND	2724.27	2544.08	1060.0	ND	104.8	82.0	121.0	1707.19	101.7	83.7	82.0	121.0	6.8			
chloroform	0.19	ND	22.28	20.0	ND	1071.25	1078.24	1060.0	ND	111.4	85.0	121.0	ND	107.1	107.8	85.0	121.0	0.7			
bromochloromethane	0.19	ND	22.22	20.0	ND	1006.82	1047.05	1060.0	ND	111.1	85.0	121.0	ND	100.7	104.7	85.0	121.0	3.9			
1,1,1-trichloroethane	0.25	ND	22.98	20.0	ND	1060.22	1094.92	1060.0	ND	114.9	78.0	127.0	ND	106.0	109.5	78.0	127.0	3.2			
cyclohexane	0.16	ND	NS	NS	NS	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
1,1-dichloropropene	0.21	ND	25.09	20.0	ND	1138.96	1180.91	1060.0	ND	125.5	91.0	133.0	ND	113.9	118.1	91.0	133.0	3.6			
carbon tetrachloride	0.30	ND	22.22	20.0	ND	1005.91	1045.57	1060.0	ND	111.1	70.0	130.0	ND	100.5	104.6	70.0	130.0	4.0			
1,2-dichloroethane	0.33	ND	22.10	20.0	ND	1085.33	1070.17	1060.0	ND	110.5	78.0	128.0	ND	108.5	107.0	78.0	128.0	1.4			
benzene	0.17	ND	21.65	20.0	ND	995.64	1028.33	1060.0	ND	108.3	87.0	118.0	ND	99.9	102.8	87.0	118.0	2.9			
trichloroethene	0.17	ND	21.63	20.0	ND	4746.41	4606.17	1060.0	ND	108.2	83.0	123.0	1796.38	95.0	81.0	83.0	123.0	3.0			
1,2-dichloropropane	0.12	ND	20.31	20.0	ND	977.65	990.28	1060.0	ND	101.4	81.0	121.0	ND	97.7	99.0	81.0	121.0	1.3			
bromodichloromethane	0.25	ND	22.93	20.0	ND	1112.30	1105.28	1060.0	ND	110.1	83.0	122.0	ND	110.5	110.5	83.0	122.0	0.5			
dibromomethane	0.19	ND	22.02	20.0	ND	1080.19	1074.36	1060.0	ND	125.4	45.0	154.0	ND	68.1	98.3	45.0	154.0	36.2			
2-chloroethyl vinyl ether	1.07	ND	25.08	20.0	ND	681.32	952.61	1060.0	ND	107.3	66.0	132.0	ND	102.9	106.1	66.0	132.0	3.1			
4-methyl-2-pentanone	1.10	ND	21.45	20.0	ND	1023.76	1060.71	1060.0	ND	118.2	82.0	124.0	ND	110.9	112.4	82.0	124.0	1.3			
cis-1,3-dichloropropene	0.14	ND	23.64	20.0	ND	1108.85	1123.75	1060.0	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
dimethyl disulfide	0.13	ND	NS	NS	NS	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
toluene	0.16	ND	21.11	20.0	ND	979.33	1007.04	1060.0	ND	105.6	84.0	123.0	ND	97.9	100.7	84.0	123.0	2.8			
ethyl methyl ether	0.26	ND	NS	NS	NS	NS	NS	NS	ND	NS	NA	NA	ND	NS	NS	NA	NA	NA			
trans-1,3-dichloropropene	0.16	ND	20.40	20.0	ND	982.74	967.86	1060.0	ND	102.0	80.0	124.0	ND	98.3	96.8	80.0	124.0	1.5			
1,1,2-trichloroethane	0.28	ND	20.70	20.0	ND	1028.83	1000.85	1060.0	ND	103.5	78.0	122.0	ND	102.9	100.1	78.0	122.0	2.8			

Workgroup #: WG89669
Method: 8260B
Matrix: WATER
Units: ug/L

Run Date: 1/3/01
Instrument ID: HPMS6
BLK FLNME: 6M12971.D
LCS FLNME: 6M12972.D

SMPL Num: 806-05
SMPL FLNME: 6M12977.D
MS FLNME: 6M12978.D
MSD FLNME: 6M12979.D

LCS DF: 1
SMPL DF: 50
MS DF: 50
MSD DF: 50

Target Analytes	MDL ug/L	CONCENTRATION, PPB								PERCENT RECOVERY												PERCENT RPD				OUTLIERS							
		LCS Spike								Sample												Blank				MS				MSD			
		Blank	LCS	Level	Sample	MS	MSD	Level	MS Spike	Blank	LCS	LCL	UCL	LCS	LCL	UCL	Sample	MS	MSD	LCL	UCL	MS	MSD	LCL	UCL	RPD	UCL	RPD	UCL				
2-hexanone	1.19	ND	16.39	20.0	ND	808.26	809.60	1000.0	ND	83.0	57.0	130.0	ND	80.8	81.0	57.0	130.0	0.2	31.0														
1,3-dichloropropane	0.16	ND	20.16	20.0	ND	955.91	960.05	1000.0	ND	100.8	78.0	123.0	ND	98.6	96.0	78.0	123.0	2.7	15.0														
tetrachloroethene	0.20	ND	21.12	20.0	ND	950.94	950.93	1000.0	ND	105.6	83.0	124.0	ND	95.5	98.1	83.0	124.0	2.7	15.0														
dibromochloromethane	0.29	ND	20.38	20.0	ND	992.75	974.49	1000.0	ND	101.9	78.0	123.0	ND	99.3	97.4	78.0	123.0	1.9	18.0														
1,2-dibromochlorane	0.15	ND	20.67	20.0	ND	1003.03	958.99	1000.0	ND	103.4	79.0	123.0	ND	100.3	98.9	79.0	123.0	1.4	15.0														
1-chlorobutane	0.26	ND	20.25	20.0	ND	831.31	879.59	1000.0	ND	101.3	60.0	140.0	ND	83.1	88.0	60.0	140.0	5.6	NA														
chlorobenzene	0.24	ND	20.55	20.0	ND	965.27	954.95	1000.0	ND	102.8	70.0	130.0	ND	96.5	98.5	70.0	118.0	2.0	15.0														
1,1,1,2-tetrachloroethane	0.25	ND	21.34	20.0	ND	1025.06	1007.67	1000.0	ND	106.7	82.0	123.0	ND	102.5	100.8	82.0	123.0	1.7	15.0														
ethylbenzene	0.33	ND	42.87	40.0	ND	988.36	1025.08	1000.0	ND	107.4	85.0	121.0	ND	98.8	102.5	85.0	121.0	3.6	15.0														
m-p-xylene	0.16	ND	21.49	20.0	ND	1980.81	2048.16	2000.0	ND	107.5	85.0	121.0	ND	99.5	103.5	85.0	121.0	4.0	15.0														
o-xylene	0.20	ND	21.29	20.0	ND	994.54	1034.89	1000.0	ND	106.5	84.0	120.0	ND	99.6	102.7	84.0	120.0	3.0	15.0														
styrene	0.45	ND	18.75	20.0	ND	913.22	902.69	1000.0	ND	103.9	73.0	124.0	ND	91.3	90.3	73.0	124.0	1.2	22.0														
benzoforn	0.20	ND	20.77	20.0	ND	951.44	991.13	1000.0	ND	103.9	81.0	124.0	ND	95.1	99.1	81.0	124.0	4.1	15.0														
isopropylbenzene	0.39	ND	19.89	20.0	ND	990.52	965.58	1000.0	ND	99.5	72.0	132.0	ND	99.1	96.6	72.0	132.0	2.5	23.0														
1,1,2,2-tetrachloroethane	0.41	ND	20.49	20.0	ND	1043.41	1000.88	1000.0	ND	102.5	72.0	132.0	ND	104.3	100.1	72.0	132.0	4.2	21.0														
trans-1,4-dichloro-2-butene	0.24	ND	21.32	20.0	ND	977.40	1005.91	1000.0	ND	106.6	82.0	125.0	ND	97.7	100.6	82.0	125.0	2.9	15.0														
propylbenzene	0.26	ND	20.39	20.0	ND	981.64	978.93	1000.0	ND	102.0	84.0	120.0	ND	98.2	97.9	84.0	120.0	0.3	15.0														
bromobenzene	0.30	ND	20.97	20.0	ND	978.54	991.64	1000.0	ND	104.9	82.0	125.0	ND	97.9	99.2	82.0	125.0	1.3	15.0														
1,3,5-trimethylbenzene	0.22	ND	20.91	20.0	ND	995.89	1013.84	1000.0	ND	104.6	80.0	128.0	ND	99.6	101.4	80.0	128.0	1.8	15.0														
2-chlorotoluene	0.30	ND	21.47	20.0	ND	999.04	992.15	1000.0	ND	107.4	80.0	127.0	ND	99.9	99.2	80.0	127.0	0.7	15.0														
4-chlorotoluene	0.26	ND	20.75	20.0	ND	960.62	969.40	1000.0	ND	103.8	80.0	121.0	ND	96.1	96.9	80.0	121.0	0.9	15.0														
alpha-methylstyrene	0.36	ND	21.30	20.0	ND	1001.43	1014.56	1000.0	ND	106.5	84.0	125.0	ND	100.1	101.5	84.0	125.0	1.3	15.0														
tert-butylbenzene	0.23	ND	20.28	20.0	ND	922.02	951.94	1000.0	ND	101.4	80.0	125.0	ND	92.2	95.2	80.0	125.0	3.2	15.0														
sec-butylbenzene	0.33	ND	20.57	20.0	ND	939.12	961.76	1000.0	ND	102.9	79.0	133.0	ND	93.9	96.2	79.0	133.0	2.4	15.0														
prisoisopropyltoluene	0.33	ND	20.58	20.0	ND	969.76	978.36	1000.0	ND	102.9	70.0	130.0	ND	97.0	97.8	70.0	130.0	0.9	15.0														
1,3-dichlorobenzene	0.32	ND	20.53	20.0	ND	976.31	980.75	1000.0	ND	102.7	70.0	130.0	ND	97.6	98.1	70.0	130.0	0.5	15.0														
1,4-dichlorobenzene	0.38	ND	21.21	20.0	ND	958.21	984.76	1000.0	ND	106.1	78.0	128.0	ND	95.8	98.5	78.0	128.0	2.7	17.0														
n-butylbenzene	0.37	ND	20.90	20.0	ND	998.16	1011.54	1000.0	ND	104.5	70.0	130.0	ND	99.8	101.2	70.0	130.0	1.3	15.0														
1,2-dichlorobenzene	0.37	ND	19.63	20.0	ND	923.88	941.90	1000.0	ND	98.2	69.0	125.0	ND	92.4	94.2	69.0	125.0	1.9	26.0														
1,2-dibromo-3-chloropropane	0.78	0.27	20.43	20.0	ND	963.69	986.59	1000.0	0.27	102.2	74.0	124.0	ND	96.4	98.1	74.0	124.0	1.7	20.0														
1,2,4-trichlorobenzene	0.25	0.46	18.65	20.0	ND	819.24	805.56	1000.0	0.46	93.3	67.0	131.0	ND	81.9	86.6	67.0	131.0	5.5	26.0														
hexachlorocyclopentadiene	0.46	0.62	21.16	20.0	ND	1004.75	1014.54	1000.0	0.62	105.8	69.0	126.0	ND	100.5	104.5	69.0	126.0	3.9	24.0														
naphthalene	0.18	0.36	20.45	20.0	ND	962.72	993.22	1000.0	0.36	102.3	60.0	137.0	ND	96.3	99.3	60.0	137.0	3.1	33.0														
1,2,3-trichlorobenzene	0.33																																
Surrogates																																	
dibromomethane		23.89	24.07	25.0	23.90	24.58	24.38	25.0	95.6	96.3	86	118	95.6	98.3	97.5																		
1,2-dichloroethane-d4		23.96	24.19	25.0	24.48	25.11	24.56	25.0	95.5	96.8	86	120	97.9	100.4	98.2																		
toluene-d8		23.82	23.80	25.0	23.92	23.66	23.56	25.0	95.3	94.0	88	110	95.7	94.6	94.2																		
p-bromonaphthalene		25.33	24.52	25.0	25.31	24.78	24.46	25.0	101.3	98.1	86	115	101.2	99.1	97.8																		

Notes and Definitions:

MDL = Method Detection Limit

BLK = Method Blank

LCS = Laboratory Control Sample

MS/MSD = Matrix Spike / Matrix Spike Duplicate

LCL = Lower Control Limit

UCL = Upper Control Limit

H = Above control limit

L = Below control limit

ND = Non Detected

RPD = Relative Percent Difference

NS = Not spiked

NA = Not applicable

DF = Dilution Factor

ORGANIC INSTRUMENT DATA

Data File : C:\HPCHEM\1\DATA\010301\6M23969.D

Vial: 1

Acq On : 3 Jan 2001 7:23

Operator: CMS

Sample : WG89669-01 50NG BFB STD SV-73-43

Inst : HPMS6

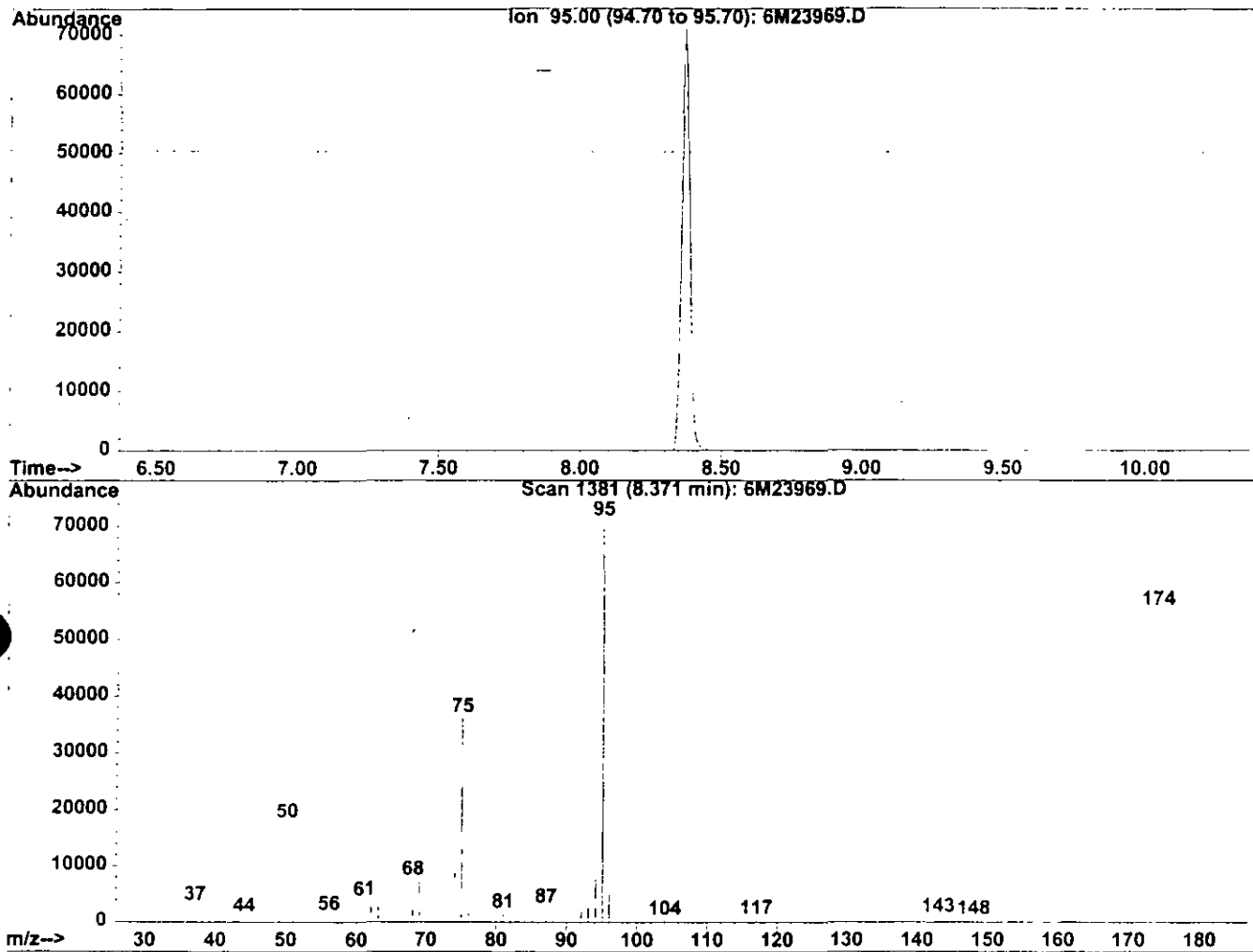
Misc : WATER,1

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\M8260BWT.M (RTE Integrator)

Title : Method 8260B_WATER - ICAL 12/28/00



Spectrum Information: Scan 1381

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.9	17672	PASS
75	95	30	60	51.0	36144	PASS
95	95	100	100	100.0	70920	PASS
96	95	5	9	7.1	5035	PASS
173	174	0.00	2	0.7	387	PASS
174	95	50	100	77.6	55064	PASS
175	174	5	9	7.2	3941	PASS
176	174	95	101	96.8	53312	PASS
177	176	5	9	6.2	3323	PASS

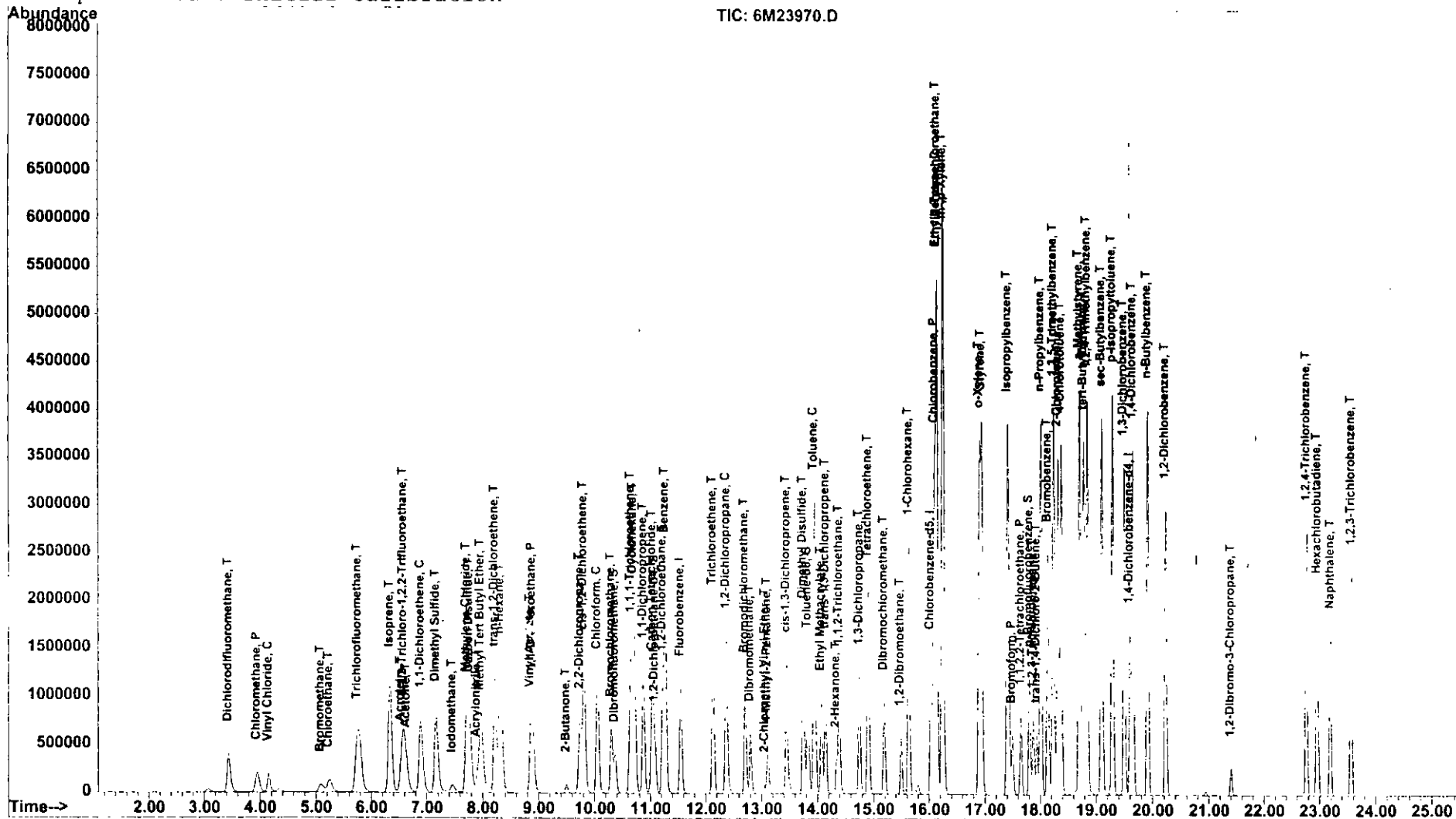
Quantitation Report

Date : C:\HPCHEM\1\DATA\010301\6M23970.D
Acq On : 3 Jan 2001 7:56
Sample : WG89669-02 50 PPB STD M8260 10ML
Misc : WATER,1
MS Integration Params: rteint.p
Quant Time: Jan 3 8:29 2001

Vial: 2
Operator: CMS
Inst : HPMS6
Multiplr: 1.00

Quant Results File: M8260BWT.RES

Method : C:\HPCHEM\1\METHODS\M8260BWT.M (RTE Integrator)
Title : Method 8260B WATER - ICAL 12/28/00
Last Update : Thu Dec 28 12:18:14 2000
Response via : Initial Calibration



Date File : C:\HPCHEM\1\DATA\010301\6M23971.D
Acq On : 3 Jan 2001 8:46
Sample : WG89669-03 VBLK0103 BLANK M8260 10ML
Misc : WATER,1

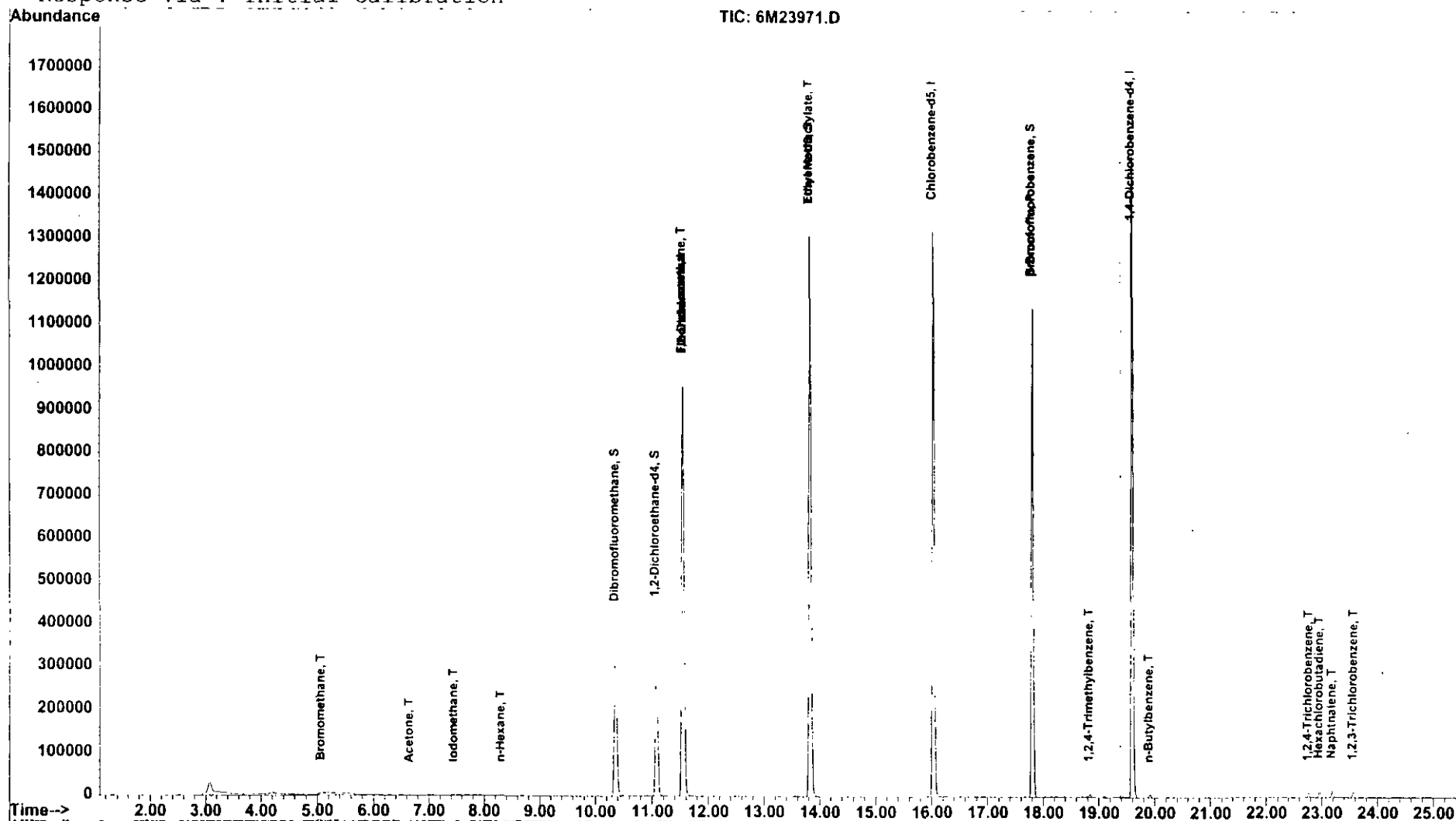
Vial: 3
Operator: CMS
Inst : HPMS6
Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 3 9:12 2001

Quant Results File: M8260BWT.RES

Method : C:\HPCHEM\1\METHODS\M8260BWT.M (RTE Integrator)
Title : Method 8260B_WATER - ICAL 12/28/00
Last Update : Tue Dec 19 15:51:26 2000
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\010301\6M23975.D

Vial: 7

Acq On : 3 Jan 2001 11:11

Operator: CMS

Sample : L0012598-01 EGLIN M8260 10ML

Inst : HPMS6

Misc : WATER,1

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 3 11:37 2001

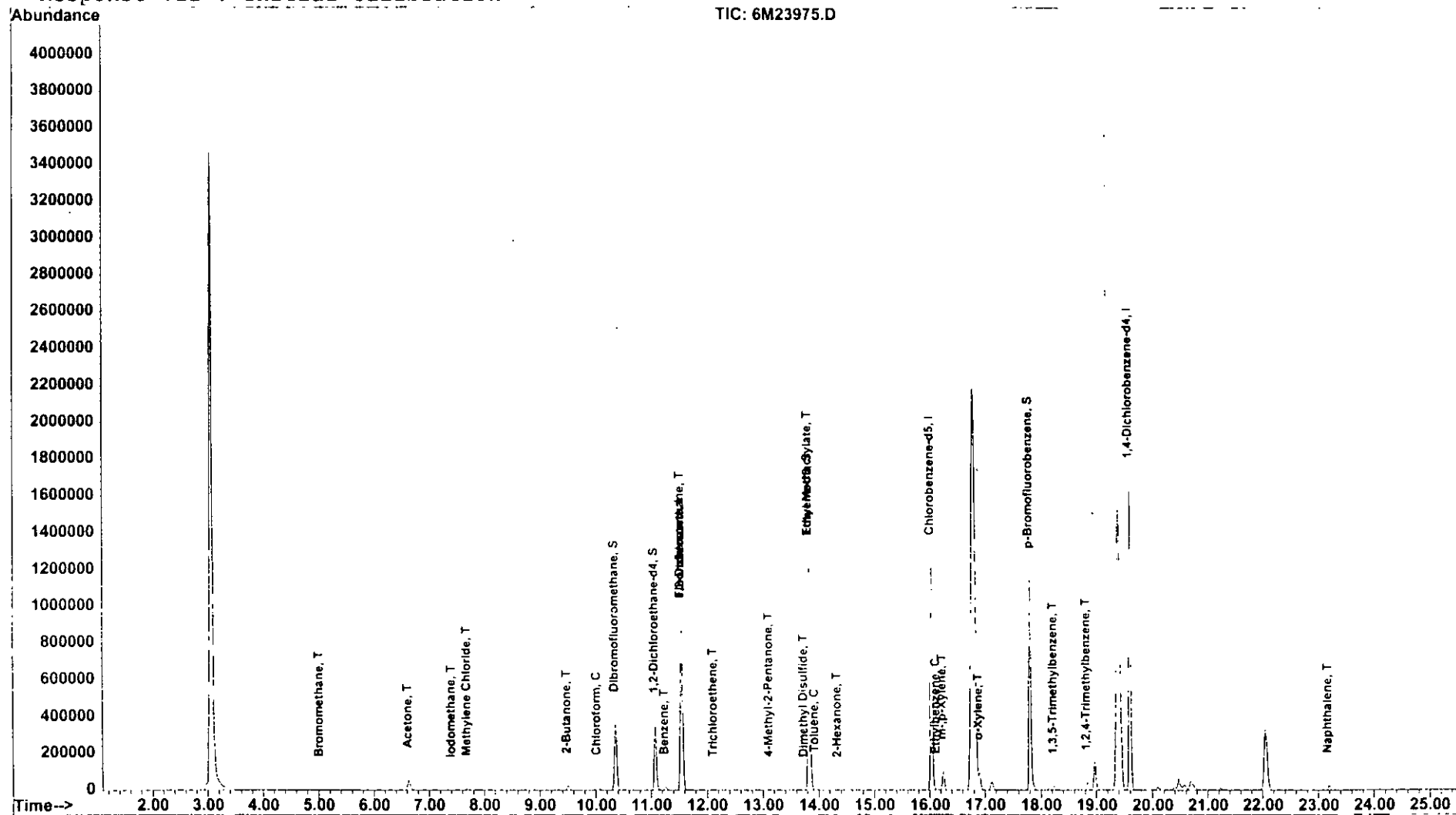
Quant Results File: M8260BWT.RES

Method : C:\HPCHEM\1\METHODS\M8260BWT.M (RTE Integrator)

Title : Method 8260B_WATER - ICAL 12/28/00

Last Update : Tue Dec 19 15:51:26 2000

Response via : Initial Calibration



INORGANIC QA/QC

KEMRON ENVIRONMENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: WG8967G
METHOD: 7470A
MATRIX: Water
UNITS: mg/L
INSTRUMENT: Lecoan PS 202

RUN DATE: 01/03/2001
PREP DATE: 01/02/2001
ANALYST: AJT
DUPLICATE: L0012598-01
MS/MSD L0012571-01

ANALYTE			CONCENTRATION PPB								PERCENT RECOVERY						PERCENT RPD			
	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP	MS	RPD
							RESULT											RPD	UCL	
Mercury	0.000200	ND	0.001000	0.001050	ND	ND	0.005760	0.010000	0.019300	0.014100	105.0	80.0	120.0	135.4	83.4	75.0	125.0	NA	31.1	20

NOTES & DEFINITIONS:

RDL = REPORTING DETECTION LIMIT
DL = DILUTED OUT
NA = NOT APPLICABLE

LCS = LABORATORY CONTROL SAMPLE
T-LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = % RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

KEMCO ENVIRONMENTAL SERVICES
OHIO KEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP: W029692

METHOD: 6010B

MATRIX: TCLP

UNITS: mg/L

INSTRUMENT: Perkin Elmer Optima 3000 DV

RUN DATE: 01/03/2001

PREP DATE: 01/02/2001

ANALYST: KHR

DUPLICATE: L0012571-01

MS/MSD: L0012598-01

ANALYTE			CONCENTRATION PPM								PERCENT RECOVERY								PERCENT		
	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE		MS	MSD	LCS	LCL	UCL	MS	MSD	MS	MS	REP	MS	RPD	
							RESULT	T-MS													
Arsenic	1.000	ND	1.000	1.020	ND	ND	ND	10.000	9.910	10.100	102.0	80.0	120.0	99.1	101.0	80.0	120.0	NA	1.90	20	
Barium	0.100	ND	10.000	9.480	ND	ND	ND	100.000	90.800	91.600	94.8	80.0	120.0	90.8	91.6	80.0	120.0	NA	0.88	20	
Cadmium	0.100	ND	1.000	0.985	ND	ND	ND	10.000	9.540	9.600	98.5	80.0	120.0	95.4	96.0	80.0	120.0	NA	0.63	20	
Chromium	0.200	ND	1.000	1.040	ND	ND	ND	10.000	9.960	10.100	104.0	80.0	120.0	99.6	101.0	80.0	120.0	NA	1.40	20	
Lead	1.000	ND	1.000	1.030	ND	ND	ND	10.000	9.910	10.000	103.0	80.0	120.0	99.1	100.0	80.0	120.0	NA	0.90	20	
Selenium	1.000	ND	1.000	0.958	ND	ND	ND	10.000	8.800	8.990	95.8	80.0	120.0	88.0	89.9	80.0	120.0	NA	2.14	20	
Silver	0.100	ND	0.200	0.204	ND	ND	ND	2.000	1.980	1.990	102.0	80.0	120.0	99.0	99.5	80.0	120.0	NA	0.50	20	
																		0.00	0.00		
																		0.00	0.00		
																		0.00	0.00		
																		0.00	0.00		
																		0.00	0.00		
																		0.00	0.00		
																		0.00	0.00		

NOTES & DEFINITIONS:

RDL = REPORTING DETECTION LIMIT

NA = NOT APPLICABLE

ND = NOT DETECTED

DL = DILUTED (4:1) (Concentration of sample > 4x spike concentration)

LCS = LABORATORY CONTROL SAMPLE

T-LCS = TRUE VALUE OF LCS

REP1 = UNSPIKED SAMPLE REPLICATE 1

REP2 = UNSPIKED SAMPLE REPLICATE 2

SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX

T-MS = TRUE VALUE OF MATRIX SPIKE

MS = MATRIX SPIKE

MSD = MATRIX SPIKE DUPLICATE

LCL = LOWER CONTROL LIMIT

UCL = UPPER CONTROL LIMIT

REP RPD = % RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES

MS RPD = % RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

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H046-006176-003 Revision No.: 05
Date: 4/01

REPLACEMENT PAGES FOR REVISION 05

Eglin Air Force Base

RCRA Part B Subpart X Permit OB/OD

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**NORTHWEST FLORIDA
DEP**

<u>Page</u>	<u>Description</u>
ix	Add acronym "TBKP"
Exposures 1, 2	Delete
II.A-3	Revised the manufacturer of the TBKP
II.A-4	Revised the description of the TBKP unit
II.A-10, 11	Updated the groundwater information
II.A-12, 13	Revised the description of the TBKP unit
II.B-7	Revised sampling frequency
II.C-8	Revised minimum time for collecting OB residue
II.D-4	Updated phone numbers
II.F-1, 2	Revised the description of the TBKP unit
II.G-2, 3, 4	Revised description of Detection Monitoring Program
III.A-3, 4	Revised the description of the TBKP unit
III.A-5, 7, 8	Revised ash management practices
III.A-6	Revised minimum time for handling OB ash
III.A-9	Updated SOI and SOP
III.B-1, 2	Revised the description of the TBKP unit and waste
III.B-11, 12	Revised the description of the TBKP unit and relationship to groundwater
III.C-1	Revised the description of the TBKP unit and combustion
III.C-3	Updated the conditions under which detonations will be conducted
III.C-10	Revised the description of the TBKP unit and events per day
III.D-2	Updated the conditions under which detonations will be conducted
Fig. II-4, 5	Revised to show monitoring well locations
Fig. II-6a, 6b, 7	Revised to show TBKP unit
Table II-5	Updated phone numbers and contacts
Table II-10	Updated phone numbers and contacts
Appendix A	Updated current permit
Appendix B	Updated TBKP manufacturer's information
Appendix C	Updated the SOIs
Appendix E	Updated OB information
Appendix F	Replacement page, the TO is on file with EOD
Appendix G	Updated the Eglin Plan
Appendix H1	Replaced NAVSCOEOD Course Outline
Appendix J	Updated the endangered species

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H1046-DD6176-003

HAZARDOUS MATERIAL EMERGENCY PLANNING AND RESPONSE

AFDTC PLAN 32-6



FEBRUARY 1998

**HEADQUARTERS
AIR FORCE DEVELOPMENT TEST CENTER**

EGLIN AIR FORCE BASE, FLORIDA

(C 1, Feb 98)

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APR 19 2001

**NORTHWEST FLORIDA
DEP**

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

AFDTC PLAN 32-6
SECURITY INSTRUCTIONS/RECORD OF CHANGES

1. The long title of this document is Air Force Development Test Center Plan 32-6, Hazardous Material Emergency Planning and Response. The short title is AFDTC PLAN 32-6 Plan or (HAZMAT Plan). Both titles are unclassified.
2. This plan is unclassified and may be reproduced in whole or in part without the permission of the OPR.
3. Operations Security (OPSEC) has been considered in accordance with (IAW) AFI 10-1101 as supplemented. All organizations tasked by this plan will ensure necessary action is taken to safeguard any operational information that might fall within the scope of the OPSEC definition contained in AFI 10-1101 and the Communications Security (COMSEC) definition in AFI 33-211.

RECORD OF CHANGES

CHANGE NO.	DATED	DATE POSTED	POSTED BY
1	Feb 98	Feb 98	JA
2	Sep 98	Sep 98	JA

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495

AFDTC PLAN 32-6
PLAN SUMMARY

1. **PURPOSE:** Due to the diversity of the materials stored on Eglin AFB and the variable hazards present, every spill response will be unique and appropriate actions will vary. This plan guides the user through a step by step procedure, including notifications, spill response team designations, containment actions, and clean-up. If the spill is moderate (100 gallons or less for POL), in-house capabilities to control and clean up the spill should be used. If the spill is beyond the capability of available resources, outside assistance should be secured.

2. **EXECUTION:**

a. **Notification:** Any person who discovers a spill or a discharge should immediately notify the Eglin Fire Department via Security Forces by dialing 911 with the following information:

- (1) Name, address and telephone number of person making report.
- (2) Time spill occurred and exact location .
- (3) Number of injured personnel and nature of injuries.
- (4) Name of material spilled or released.
- (5) Estimated quantity spilled or released.
- (6) Rate of discharge; if applicable.
- (7) Source of spilled material.
- (8) Cause of release.
- (9) Containment clean-up actions.

b. **Deployment:** The Eglin Security Forces will notify the Fire Department who will immediately respond to assess and/or control the situation.

c. **Employment:** Composition of the Disaster Response Force (DRF) includes the AFDTC Crisis Action Team (CAT), Unit Control Centers, Disaster Control Group (DCG Initial Response Elements and Follow-on Elements) and specialized teams.

3. **OPERATIONAL CONSTRAINTS:** Any deficiencies or inaccuracies noted in this plan must be identified to the Base Environmental Compliance Division (AFDTC/EMC).



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER (AFMC)
EGLIN AIR FORCE BASE, FLORIDA

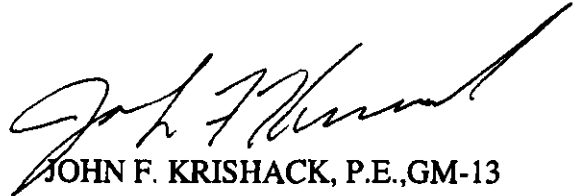
MEMORANDUM FOR AFDTC/EMC

February 1998

FROM: AFDTC/EMR

SUBJECT: P.E. Certification of AFDTC Plan 32-6

Having examined the facility and being familiar with the provisions of 40 CFR 112, I attest that this AFDTC Plan 32-6, dated February 1998, has been prepared in accordance with good engineering practices.


JOHN F. KRISHACK, P.E., GM-13
Chief, Environmental Restoration Branch

FLORIDA
State of P.E. Registration

37186
Registration No.

February 1998

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 96 ABW/XP

SUBJECT: Change 1 to AFDTC Plan 32-6

1. This is Change 1 to AFDTC Plan 32-6, Hazardous Material Emergency Planning and Response Plan, dated February 1998, and is effective upon receipt.

2. Remove and/or insert the following pages:

Remove Page:
Cover Page

Insert:
Cover Page

3. After change has been posted and annotated in "Record of Changes," page I, file this letter immediately following the front cover of this plan.

Signed

DONALD L. HOWARTH, GM-14
Chief Plans

Attachment:
Change 1 to AFDTC Plan 32-6

September 1998

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 96 ABW/XP

SUBJECT: Change 2 to AFDTC Plan 32-6

1. This is Change 2 to AFDTC Plan 32-6, Hazardous Material Emergency Planning and Response Plan, dated February 1998, and is effective upon receipt.

2. Add the following page in front of the cover sheet:

Letter dated February 1998, Subject: P.E.
Certification of AFDTC Plan 32-6

3. After addition has been posted and annotated in "Record of Changes," page I, file this letter immediately following the front cover of this plan.

Signed
DONALD L. HOWARTH, GM-14
Chief Plans

Attachment:
Change 2 to AFDTC Plan 32-6



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 96TH AIR BASE WING (AFMC)
EGLIN AIR FORCE BASE FLORIDA

February 1998

MEMORANDUM FOR DISTRIBUTION (See Annex D)

FROM: 96 ABW/XP

SUBJECT: AFDTC Plan 32-6 Hazardous Material Emergency planning and Response Plan

1. This plan replaces AFDTC PLAN 32-6, dated January 1996 and the Site Specific Contingency Plan for Marine Transfer Related Facility, dated September 1995. The purpose of this plan is to provide information and procedures for response personnel and supporting teams that must control, contain, neutralize, absorb, decontaminate, and/or suppress hazardous materials, leaks, spills of hazardous substances due to accidents, incidents or disasters. It further supports the USAF Hazardous Material Emergency planning and Response Plan (HAZMAT Plan) and the Marine Transfer Related Facility Contingency Plan by providing guidance and procedures for:

- a. Pollution abatement.
- b. Response to pollution incidents.
- c. Assistance in a coordinated Federal pollution response.

2. This Plan will be used in conjunction with AFDTC Plan 32-1, Annex A.

3. This plan is effective for planning upon receipt and for implementation when directed by the Commander AFDTC or designated representative. Any significant changes made to this AFDTC Plan 32-6 (HAZMAT Plan) are outlined and approved. Supporting site specific spill prevention, control, and countermeasure plans will be prepared within 60 days after receipt of this plan and forwarded to the designated Office of primary responsibility (OPR). A review will be conducted 18 months after publication.

4. OPR for this document is the Environmental Compliance Division, AFDTC/EMC, Mr. Bruce Stippich 882-6282 ext 337, 501 DeLeon Street, Suite 101, Eglin AFB, FL 32542-5133.

5. Turn in previous AFDTC Plan 32-6 and Site Specific Contingency Plan for the Marine Transfer Related Facility to the Eglin Recycling Center for destruction. It is not a classified document.

DONALD L. HOWARTH, GM-14
Chief, Plans

Attachment
AFDTC PLAN 32-6

DISTRIBUTION CHANGE LETTER

(DATE)

MEMORANDUM FOR AFDTC/EM

FROM:

SUBJ: Distribution of AFDTC PLAN 32-6

1. () This office has received _____ copies of subject document. Request distribution be changed as follows:

_____ () Exclude from distribution

_____ () Increase number of copies to _____

_____ () Decrease number of copies to _____

_____ () Change office symbol and address:

O* ADDRESS:

NEW ADDRESS:

2. _____ () Above changes apply to this plan only.

3. _____ () Above changes apply to all plan distribution for which (_____) is OPR.

organization

(Signature of Commander or
authorized representative)
(Unit/Office Symbol)

cc:
96 ABW/XPX

7

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

AFDTC PLAN 32-6
GLOSSARY OF TERMS

1. **AFDTC/Eglin AFB**: For the purpose of this plan, the entire Eglin Military Reservation including remote sites.
2. **CERCLA Hazardous Substance**: Any substance listed in Table 302.4 of 40 CFR 302. See Tab D to Appendix 1 to Annex H.
3. **Class I Fuel Spill**: Spill is less than 2 feet in any plane direction (T.O. 00-25-172, p. 1-2).
4. **Class II Fuel Spill**: Spill is equal to or less than 10 feet in any plane direction or equal to or less than 50 square feet and not a continuing discharge (T.O. 00-25-172, p. 1-2).
5. **Class III Fuel Spill**: Spill is greater than 10 feet in any plane direction or greater than 50 square feet and continuing (T.O. 00-25-172, p. 1-2).
6. **Coastal Waters**: Generally, those U.S. marine areas navigable by deep draft vessels. In the Eglin AFB area, the Gulf of Mexico, Intracoastal Waterway, Choctawhatchee Bay, and the Bayous are considered coastal waters.
7. **Code of Federal Regulations (CFR)**: A codification of the general and permanent rules that the executive departments and agencies of the federal government publish in the Federal Register. There are 50 titles that represent broad areas subject to federal regulations. CFRs are revised and published once per year.
8. **Collecting Agent**: Those chemicals or other agents that can gel, sorb, congeal, herd, entrap, fix, or make the oil mass more rigid or viscous in order to facilitate surface removal of oil.
9. **Contamination Avoidance**: An element of contamination control. Actions taken before an act to prevent resources from contamination and actions after an attack to mark and avoid contamination. These measures reduce the amount and spread of contamination.
10. **Contamination Control**: Procedures to avoid, reduce, remove, or render harmless, temporarily or permanently, nuclear, biological, and chemical contamination for the purpose of maintaining or enhancing the efficient conduct of military operations.
11. **Contamination Control Area**: An area in which chemically contaminated individual protective equipment (IPE) is removed; people, equipment, and supplies are decontaminated to allow processing between a toxic environment and a toxic free area; and people exiting in a toxic free area can safely don IPE.
12. **Contamination Control Station**: An area at a nuclear weapons accident scene or hazardous material (HAZMAT) accident scene where contaminated clothing and equipment are removed, and personnel and equipment are monitored and decontaminated.

13. **Discharge**: Includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil or other hazardous substance, or any action that violates applicable water quality standards, causes a film or sheen or discoloration of the surface of the water or adjoining shoreline, causes a sludge or emulsions to be deposited beneath the surface of the water or upon the adjoining shoreline, or affects the quality of the ground water.

14. **Disaster Control Group (DCG)**: A team composed of local military and civilian personnel with the skills and equipment necessary to contain an emergency or disaster situation once they arrive at the scene (includes hazardous material spills).

15. **Emergency Planning and Community Right-to-Know Act (EPCRA)**: This law establishes a structure at the State and local levels to assist communities in planning for chemical emergencies and requires facilities to provide information on various chemicals present in the community.

16. **Extremely Hazardous Substance (EHS)**: Any substance listed in Appendix A or B of 40 CFR 355. See Tab D to Appendix 1 to Annex H.

17. **Facility**: A physical plant, such as real estate and improvements thereto, including buildings and equipment, which provides the means for assisting or making easier the performance of a function; any part or adjunct of a physical plant, or any item of equipment which is an operating entity and which contributes or can contribute to the execution of a function by providing some specific type of physical assistance.

18. **Hazardous Substance**: Any substance which is defined as a hazardous substance in 42 USC 9601(14) and which is designated as a hazardous substance in 40 CFR 302.4. This includes oil contaminated with hazardous substances.

19. **Initial Response Element**: The disaster response force element that deploys immediately to the disaster scene to provide initial command and control, to save lives, and to suppress and control hazards.

20. **Inland Waters**: Consists of ground water, rivers, creeks, ponds, etc.

21. **Installation HAZMAT Emergency Planning and Response Program Manager**: The person assigned as the base point of contact for the EPCRA program. The Program Manager takes part in local emergency planning and must ensure the base EPCRA requirements are implemented.

22. **Staff Judge Advocate (JA)**: Coordinates with AFDTC/EMC on reports involving legal issues or potential damage claims.

23. **Level of Concern**: The concentration of an Extremely Hazardous Substance (EHS) in the air above which there may be serious irreversible health effects or death as a result of a single exposure for a relatively short period of time.

24. **Local Emergency Planning Commission (LEPC)**: A committee established by the State commission for each emergency planning district to plan and coordinate local emergency response actions.

25. **National Response Center (NRC)**: National headquarters site for activities relative to pollution spill incidents.

26. National Response Team (NRT): Representatives of the primary agencies, and selected advisory agencies, designated to act in the event of a pollution incident involving oil or hazardous material which: (a) exceeds the response capability of the EPA region in which it occurs; (b) transects regional boundaries; (c) involves national security; or (d) impacts significant amounts of property.

27. On-Scene Commander (OSC): The person designated to coordinate the rescue efforts at the rescue site (JCS Publication 1-02). The senior member (normally the base or wing/group commander) of the disaster control group. All DRF members at an accident scene are under the command and control of the OSC.

28. On-Scene Control Point: A location established near the accident scene where the DCG functions.

29. Operational Decontamination: Decontamination carried out by individuals and/or units restricted to specific parts of operationally essential equipment, material, and/or working areas, to minimize contact and transfer hazards and to sustain operations. This may include further decontamination of the individual as well as decontamination of mission-essential spares and limited terrain decontamination.

30. Public Affairs (PA): Office that is notified of all reports to external regulatory authorities.

31. Petroleum Soil Treatment Facility: Facility for the on-site remediation of soils contaminated with IDM or POL chemicals.

32. POL: Oil of any kind or in any form, including but not limited to petroleum, fuel, oil, sludge, oil refuse, and oil mixed wastes other than dredged spoil. Oil mixed with a hazardous substance, should be treated as a hazardous substance.

33. Potential spill: Any accident or other circumstances which threatens to result in the discharge of oil or a hazardous polluting substance. A potential spill shall be categorized as to its severity based on the criteria of actual spills.

34. Primary agencies: Those departments or agencies that comprise the NRC and are designated to have primary responsibility and resources to promote effective operation of the National Plan (DOD, DOT, DOI, EPA, DOE).

35. Regional Response Center (RRC): Regional Headquarters site for activities relative to potential spill incidents. USCG Eighth District, New Orleans LA, is the RRC for Northwest Florida coastal water spills. EPA Region IV, Atlanta GA, is the RRC for inland spills.

36. Regional Response Team (RRT): Regional representatives of the primary agencies, and selected advisory agencies, designated to conduct planning and preparedness actions prior to, and to act as an emergency response team, in the event of a pollution incident.

37. Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles) of any hazardous chemical, extremely hazardous substance, or toxic chemical.

38. Reportable Quantity: That quantity, as set forth in Table 302.4 of 40 CFR 302.4, the release of which requires notification pursuant to Florida Administrative Code (FAC) 17-150.200.

39. **Spill Response Team:** Individuals tasked under this plan to respond, contain, and clean up oil and hazardous substance spills as directed by the On-Scene Commander. The SRT is composed of individuals from 96 CEG/CEZHH. The team roster is located in Annex H Appendix 1 Tab A Exhibit 1.

40. **Suspected Releases:** Include the following:

- A. The discovery by owners and operators of released regulated substances from an underground storage tank system at the facility or in the surrounding area (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface water) in excess of the quantities set forth in Subsection (b);
- B. Unusual operating conditions observed by owners and operators (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the underground storage tank system, or any unexplained presence of water in the tank), unless system equipment is found to be defective but not leaking, and is immediately repaired or replaced; or
- C. Monitoring results from a release detection method required under Rule 62-761-600 through 62-761-640 FAC, or from a closure assessment required under Rule 62-761.800 (3) FAC, that indicates a release may have occurred, including but not limited to the positive response of a leak detection device, a significant increase in contamination levels above background, a sheen, layer, or odor of regulated substances in a groundwater sample, a sheen or layer of regulated substances on surface water, an exceedance of ground or surface water standards, or vapor levels in excess of those allowed by Rule 62-761-640 (2)(e) FAC, unless:
 - (1) The monitoring device is found to be defective, and is immediately repaired and recalibrated, or is replaced and calibrated, and additional monitoring does not confirm the initial result; or
 - (2) In the case of inventory control, the investigation conducted pursuant to Rule 62-761.700 (3) FAC does not confirm the initial result; or
- D. Manual tank gauging results for tanks of 550 gallons or less conducted pursuant to Rule 62-761.640 (5) FAC, if the variation between beginning and ending measurements exceeds 10 gallons for any weekly test or 5 gallons for the average of four consecutive weekly tests.

41. **Tasked Agencies:** All organizations on Eglin AFB storing or handling oil or hazardous substances.

42. **Thorough Decontamination:** Decontamination carried out by units, with or without external support, to reduce contamination on personnel, equipment, material, and/or working areas to the lowest possible levels, to permit the partial or total removal of individual protective equipment and maintain operations with minimum degradation. This may include further terrain decontamination.

43. **Threshold Planning Quantity:** For any extremely hazardous substance, the quantity listed in the "Threshold Planning Quantity" column in appendix A or appendix B of 40 CFR 355.

44. **Vulnerable Zone:** An area over which the airborne concentration of a chemical involved in an accidental release could reach the Level of Concern.

AFDTC PLAN 32-6

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HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

AFDTC PLAN 32-6
BASIC PLAN

REFERENCES:

Air Force Instructions:

AFPD 32-3, Environmental Quality

AFI 22-7005, Environmental Protection Committees

AFI 22-7047, Compliance Tracking and Reporting

AFI 91-204, Investigating and Reporting US Air Force Mishaps

AFI 32-4001, Disaster Preparedness Planning and Operations

AFI 32-4002, Hazardous Material Emergency Planning and Response Compliance

All AFDTC Plans

Contingency Plans:

**Environmental Protection Agency, Region IV (Oil and Hazardous Substance Pollution Plan)
Sixth Coastal Region (USCG) Oil & Hazardous Substance Contingency Plan**

Florida Coastal Pollutant Spill Contingency Plan

State Emergency Response Commission - SARA Title III How to Comply Handbook

Florida Statutes:

Florida Hazardous Materials Response and Community Right to Know Act, F.S. 252.81, et seq.

Pollutant Spill Prevention and Control Act, F.S. 376.011, et seq.

**Resource Recovery and Management Act, F.S. 403.721 and
F.S. 316.302**

Florida Regulations:

Notification Requirements Florida Administrative Code (FAC) 62 -150.300, (FAC) 62-761, and (FAC) 62-762.

Federal Statutes:

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601, et seq.

Emergency Planning and Community Right-to-Know Act (SARA Title III or EPCRA), 42 USC 11001, et seq.

Resource Conservation and Recovery Act (RCRA), 42 USC 6901, et seq.

Hazardous Materials Transportation Act (HMTA), 49 USC 1801, et seq.

Federal Planning Documents:

Technical Guidance for Hazards Analysis, Dec 1987, (USEPA, FEMA, DOT)

Federal Regulations:

National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300

Designation Reportable Quantities, and Notification, 40 CFR Part 302

List of Extremely Hazardous Substances, 40 CFR 355, Appendix A

HMTA Hazardous Material Regulations, 49 CFR Part 171

Discharge of Oil, 40 CFR 110

TASKED ORGANIZATIONS: SEE ANNEX A

1. SITUATION:

a. **General:** Eglin AFB is subject to spill and release of various toxic, hazardous, polluting substances that will require control, neutralizing, and cleanup. This Plan provides the necessary guidance for personnel who work with the substances, report spills, leaks, or releases, and make notification to proper authorities when mishaps occur. In addition, this plan outlines those measures necessary for compliance with Federal anti-pollution regulations, and supports National, Regional, and State Contingency Plans by delineating local response procedures for those pollution incidents which do occur. The following assumptions are made:

b. **Assumptions:**

(1) Major spills or releases may temporarily disrupt normal operations.

(2) Acts of nature may cause accidental releases of materials that may directly affect Eglin and/or the surrounding communities.

(3) AFDTC will be required to institute cleanup actions for any spill that occurs from a facility it controls or maintains.

(4) Major or minor accidents on the Eglin complex could cause a release of material that may directly affect Eglin and/or the surrounding communities.

(5) Local communities or civil agencies may request support from this Base.

2. **MISSION:** This plan provides information and procedures for response personnel and supporting teams that must control, contain, neutralize, absorb, decontaminate, and/or suppress hazardous materials, leaks, spills of hazardous substances due to accidents, incidents or disasters.

a. This plan supports National and Regional Oil and Hazardous Substance Pollution Contingency Plans and includes the AFDTC Spill Prevention Control and Countermeasures (SPCC) Plan by providing for the discovery, notification, containment, and cleanup of spills occurring on Eglin AFB. This plan is intended to fulfill the requirements of the following:

(1) Spill Prevention Control and Countermeasures Plan

(2) Oil and Hazardous Substance Pollution Contingency Plan (OHSPC)

(3) Spill prevention and response requirements and responsibilities.

(4) Emergency Planning and Community Right-to-Know Act (EPCRA)

b. The policies, responsibilities and procedures in this plan are applicable to base operations, private contractors, and visitors on Eglin AFB, Florida. AFDTC PLAN 32-6 has been developed in accordance with established Federal, State, and Air Force Contingency Plan guidance.

3. **EXECUTION:**

a. **Concept of Operations**

(1) The spill response program is separated into six relatively distinct phases. For descriptive purposes the phases are: (a) Discovery and notification; (b) Containment and countermeasures; (c) Cleanup and disposal; (d) Restoration; (e) Recovery of damages and enforcement; and (e) Spill Prevention Control and Countermeasures. A detailed description of each phase and the action required is contained in Appendices 1, 2, 3, 4, 5, and 6 to Annex H.

b. **Tasks and Responsibilities**

(1) The Commander, Air Force Development Test Center (AFDTC/CC), will:

(a) Assign responsibility for Eglin AFB Spill Response Plan execution to the 96 ABW/CC.

(b) Ensure development and publication of AFDTC Plan 32-6.

(c) Activate the battle staff, as necessary, to support operations required by this plan and AFDTC Plan 32-1, during major spills or releases.

(2) The 96 ABW/CC will:

(a) Provide an OSC.

(b) Ensure safe containment actions are performed by specialized teams and DRF members.

(c) Be prepared to act as the DoD OSC for all on and off base mishaps involving hazardous materials.

(d) Be prepared to implement any portions of this plan and AFDTC Plan 32-1 if a major hazardous material incident occurs.

(3) Each individual assigned, attached to, or working at Eglin AFB is tasked to report any spill of oil or hazardous substances to the Eglin Fire Department via Eglin Security Forces by dialing 911, and to take every reasonable precaution to prevent the spillage of oil or hazardous substances.

(4) The Eglin Security Forces and/or Fire Department will:

(a) Receive incoming reports of pollution incidents.

(b) Make internal notification as directed by the OSC in accordance with Appendix 1 to Annex H of this plan and AFDTC Plan 32-1.

(c) Maintain communications with the Mobile Command Post.

(d) Maintain an incident log, detailing all the actions taken during the course of the pollution response. The log will include: a description of the pollutant, the actions taken to recover the pollutant and restore the environment, and any additional significant information.

(e) Notify off-base officials of downwind hazard if directed to do so by the AFDTC/CC or OSC.

(5) The OSC will determine the cause of the spill and direct forces to institute appropriate action to stop the source of the spill if it is still occurring. The OSC will direct the HAZMAT/SRT in containment, clean-up and restoration, and determine the party responsible for the spill.

(6) The Environmental Management Compliance Division (AFDTC/EMC) will:

a. Serve as on scene coordinator for spill remediation activities.

b. Make reports to Federal and State agencies as required by Appendix 1 to Annex H.

c. Notify and submit reports to 96 ABW/CC and HQ AFMC/CEV as detailed in AFI 32-4002, Para. 4.1.

d. Be the OPR for this plan.

(7) The 96th Civil Engineer Commander (96 CEG/CC) will:

(a) Provide a representative from 96 CEG Fire Protection Flight (96 CEG/CEF).

(b) Provide mutual aid Hazardous Material response for 11 off base cities: Fort Walton Beach, Crestview, North Bay, Ocean City-Wright, Valparaiso, Destin, Niceville, Okaloosa Island, Mary Esther, Freeport, and DeFuniak Springs.

(c) Provide the 96 CEG Spill Response Team (SRT) (Exhibit 1 to Tab A to Appendix 1 to Annex H) for the containment and clean-up of spills as requested by the OSC. The SRT members will respond to all spills when directed by the OSC. It will perform spill containment, recovery, clean-up, disposal, and restoration as directed by the OSC.

(d) Provide a representative from the Disaster Preparedness Flight (96 CEG/CEXD) who will:

1. Be prepared to implement any portions of this plan and AFDTC Plan 32-1.

2. Assist the OSC.

3. Provide a mobile command post for command and control communications.

4. Provide decontamination within capability.

(e) Provide a representative(s) from Liquid Fuels Maintenance (CEZOIL) to investigate reports of Underground Storage Tank (UST) leak detection alarms.

(f) Request a Jocas number/JON number order number for reporting reimbursable expenses.

(g) Request additional response forces, if necessary, to assist in the containment and clean up operations of large spills.

(h) Coordinate with 96 CEG/CEZ on any required changes to this plan.

(8) Bioenvironmental Engineering (96 AMDS/SGPB) will:

(a) Collect environmental samples. Assist in the identification and composition of spilled material to determine levels of contamination in all media (air, water, soil) where appropriate.

(b) Provide guidance for neutralization, decontamination, and clean up operations.

(c) Retain the data obtained from the analysis of the samples in accordance with AFI 37-13V2.

(d) Evaluate the magnitude and severity of the threat to public health, welfare, and the environment using material safety data sheets, toxicity reference material, or any other available reference manuals.

(e) Advise the OSC and recovery personnel on health precautions, including identification of any personal protective equipment required.

(f) Delineate the boundary of the spill. If necessary, advise the OSC to evacuate the spill area and make it OFF LIMITS TO UNAUTHORIZED PERSONNEL. Take appropriate safety precautions to protect response personnel located in close proximity to the probable spill route.

(g) Review training plans and inspection logs of all organizations that use Level A (vapor or gas tight) personnel protective suits.

(9) The 46th Test Wing Technical Director (46 TW/TS) will provide photographic support at the site of a pollution spill when requested.

(10) The Staff Judge Advocate (AFDTC/JA) will:

(a) Assess the potential liabilities of all the parties involved in the spill; Air Force, Air Force Contractor, and others as applicable.

(b) Advise AFDTC/CC and 96 ABW/CC on possible claims by and against the Air Force.

(c) Advise the OSC of Federal, State, and Local spill reporting requirements.

(d) Assist in accomplishing the enforcement procedures contained in Appendix 5 to Annex H.

(11) Deputy for Contracting (AFDTC/PK) will:

(a) Assist in contracting commercial resources as requested by the OSC.

(b) Purchase on an emergency basis, materials such as hay, straw, and polyurethane foam, if requested by the OSC.

(12) The Director of Financial Management and Comptroller (AFDTC/FM) will:

(a) Provide a JOCAS number/JON number for tracking costs associated with the spill response.

(b) Provide for the expenditure of funds as required for a spill response.

(c) Coordinate with the Coast Guard or Environmental Protection Agency (EPA) for the reimbursement of Air Force expenditures on non-Air Force spills.

(13) The 46th Test Wing Operations Group Commander (46 OG/CC) will provide helicopter support, as required, during a pollution response.

(14) Detachment 5, ASC, will within its capabilities, support efforts to analyze and identify unknown pollutants.

(15) The 96th Security Forces Squadron (96 SFS) will:

(a) Watch for and report any suspected tampering with or spillage from a storage facility during routine patrols.

(b) Provide escort for vehicles and heavy equipment responding to a spill incident when required.

(c) Coordinate with appropriate law enforcement agencies when off-base travel of heavy equipment (oversized load) is required.

(d) When directed by the OSC:

1. Establish a cordon, with an entry control point, around the spill control zone.

2. Order and ensure evacuation of personnel from the control zone.

(16) The Office of Public Affairs (AFDTC/PA) will:

(a) Release situation reports or factual information on post-spill activities as directed by the OSC.

(b) Assist other Federal agencies involved in a spill response in the preparation and/or release of information.

(17) The 96 LG/CC will:

(a) Provide the OSC a listing of available vehicles by type and capabilities.

(b) Provide transportation support as required by the DCG.

(c) Have a containment boom available for deployment in Weekly Bayou.

(d) On discovery or notification of a spill in the vicinity of the POL Dock, or at the request of the OSC, deploy the boom.

(e) Provide support for emergency purchases of materials.

(f) Report any Underground Storage Tank (UST) leak detection alarms to Liquid Fuels Maintenance Branch (CEOIL) at 2-4840 during working hours. After duty hours report leak detection alarms to the Eglin Fire Department at 882-5856.

(g) Ensure adequate methods and precautions to minimize spill incidents are being used during fueling operations.

(18) The Weather Flight (46 OSS/OSW) will:

(a) Monitor the weather during the course of a spill response operation and brief the Crisis Action Team or the OSC.

(b) Advise the Eglin Command Post (ECP) of forecast weather changes considered critical to the operation. Provide weather information to the OSC and keep the OSC apprised of any weather changes during the response.

(c) Calculate toxic corridors upon request in accordance with AFDTC Plan 32-1 and local procedures.

(19) Military Public Health (96 MDG) will conduct HAZCOM training in accordance with OSHA 1910.1200.

(20) All organizations storing or handling oil or hazardous substances will:

(a) Develop a site specific spill prevention control and countermeasures plan in accordance with Appendix 6 to Annex H.

(b) Maintain close surveillance for releases during operations of the facility or equipment.

(c) Develop and maintain the capacity to contain and clean up at least a 100-gallon release of POL (or 100% of all wastes stored, if combined amounts are less than 100 gallons) and small releases of other hazardous substances as is practical. Facilities in close proximity may maintain one central spill response kit as long as it is readily available to all of the organizations. This includes notification and disposal requirements.

(d) Ensure all workers are adequately trained in accordance with HAZCOM requirements (29 CFR 1910.120 and 1910.1200).

(e) Ensure all workers are adequately trained to report and respond to spills.

(f) Ensure environmental protection/pollution abatement precautions are implemented.

(g) Designate project officers and monitors as required. These persons will continually inspect the work areas under their control to ensure effective pollution abatement procedures are practiced. They will also ensure site specific contingency plans are developed and posted in prominent locations at potential spill sites.

4. LOGISTICS AND ADMINISTRATION:

a. Logistics: The service support required in the execution of this plan is detailed in Appendices 1, 2, 3, 4, 5, and 6 to Annex H. The nature and extent of support is variable and will depend on the severity and location of the spill.

(1) Support of this plan is accomplished by normal procedures.

(2) All emergency logistics support will be coordinated with the CAT or OSC for action.

b. Administration: Normal procedures.

c. Personnel: Personnel utilized in support of this plan will come from existing resources.

(1) Teams will be established in accordance with AFDTC Plan 32-1 and AFI 32-4002.

(2) Additional duties assigned in support of this plan become primary duties upon implementation of this plan.

5. COMMAND AND CONTROL:

a. Command:

(1) Prior to the arrival of the RRC designated OSC, the AFDTC designated OSC will direct the spill response and exercise control over all on-scene forces.

(2) When and if an RRC designated OSC assumes responsibility for directing the overall spill response, command and control of AFDTC resources will remain with the AFDTC OSC unless otherwise directed by competent authority.

b. Control: Refer to AFDTC Plan 32-1 for emergency communication and notification capability.

FOR THE COMMANDER



DONALD L. HOWARTH, GM-14
Chief, Plans
96th Air Base Wing

Annexes:

A-Tasked Organizations

H-Environmental Services


C-Marine Fuel Transfer Related Facility Site Specific Contingency Plan

Z-Distribution

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
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ANNEX A TO AFDTTC PLAN 32-6
TASKED ORGANIZATIONS

AIR FORCE DEVELOPMENT TEST CENTER (ASSIGNED AND ATTACHED UNITS), ASSOCIATE UNITS, AND ALL ON BASE CONTRACTORS AS REQUIRED BY CONTRACT. IN GENERAL, ALL ORGANIZATIONS ON EGLIN AFB STORING OR HANDLING OIL OR ANY HAZARDOUS SUBSTANCE.



DONALD L. HOWARTH, GM-14
Chief, Plans
96th Air Base Wing


HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

ANNEX H TO AFDTC PLAN 32-6
ENVIRONMENTAL SERVICES

REFERENCES: See Basic Plan

1. GENERAL: The purpose of this Annex is to assist all affected organizations to successfully resolve hazardous material/waste discharges/release/spills issues. This Annex establishes procedures and assigns specific responsibilities and reporting requirements for the accidental discharge/release/spill of any petroleum products or hazardous materials as contained in 40 CFR 112, 151, 300, 355, AFI 32-4001, and AFI 32-4002.

2. SITUATION: AFDTC may be required to respond to a wide range of pollution contingencies and must be prepared to manage such events in a timely and effective manner. Elements of AFDTC as well as elements of both Federal and State agencies may be called upon depending on the severity of the problem.


MICHAEL R. NEWBERRY
Lt Col, USAF, BSC
Director, Environmental Management

Appendices

- 1-Spill Response Phase I - Discovery and Notification
- 2 -Spill Response Phase II - Containment and Countermeasures
- 3 -Spill Response Phase III - Cleanup and Disposal
- 4 -Spill Response Phase IV - Restoration
- 5 -Spill Response Phase V - Recovery of Damages and Enforcement
- 6 -Spill Response Phase VI - Spill Prevention Control and Countermeasures
- 7 -Approved Waste Accumulation Point Locations

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APPENDIX I TO ANNEX H TO AFDTC PLAN 32-6
SPILL RESPONSE PHASE I - DISCOVERY AND NOTIFICATION

1. **GENERAL:** This phase covers those actions taken to:

- a. Discover a spill or potential discharge.
- b. Determine the location of a spill and the adjacent resources that may be affected.
- c. Determine the nature and quantity of the pollutant.
- d. Report the spill in accordance with existing directives.

2. **DISCOVERY:** As soon as a discharge or spill is discovered or suspected, it should be reported to the Eglin Fire Department via Eglin Security Forces by dialing 911.

a. The discovery of a spill may be made by the discharger, through inspection procedures such as Security Forces Patrols, or through random discovery by the incidental observation of individuals. Information reported should include the following:

- (1) Name, address, telephone number, of person making report.
- (2) Exact location of spill.
- (3) Time spill occurred.
- (4) Number of injured personnel and nature of injuries.
- (5) Name of material spilled or released.
- (6) Estimated quantity spilled or released.
- (7) Rate of discharge; if applicable.
- (8) Source of spilled material.
- (9) Cause of release.
- (10) Containment/clean-up actions.

b. After the spill has been reported, it is important to stop the spill at its source, only if it is safe to do so!

3. **NOTIFICATION:** Upon receipt of the initial report the ECP will initiate the notification phase.

a. **Internal Notification:** The most important action which can be taken to minimize the severity of a pollution incident is the rapid deployment of a response team. Once notified by dialing 911, the 96 SFS will immediately notify the Initial Response Force.

(1) First Response to major accidents/incidents are always made by the Initial Response Force (IRF). The IRF consists of:

(a) Fire Department.

(b) Hospital.

(c) Security Forces.

(2) The IRF will assume control of the situation; make objective evaluations; perform lifesaving, fire suppression, containment actions; and provide information services.

(3) The Senior Fire Officer (SFO) will assume duties as the initial OSC upon arrival (the SFO will be trained in hazardous materials emergency response). He will assess the situation and if deemed necessary, request dispatch of the OSC and activation of all or part of the DCG. Members of the DCG are listed in AFDTC Plan 32-1.

(a) The OSC will be responsible for directing and coordinating all spill response actions. The ECP and/or 96 CEG/CEF will maintain an Incident Log, detailing all the actions taken during the course of the pollution response. The log will include: a description of the pollutant, the actions taken to recover the pollutant and restore the environment, and any additional significant information.

(b) The magnitude of the spill/leak will determine the level of response required to safely identify, isolate, contain, or neutralize/decontaminate the effects of the hazardous material. The OSC will use proper judgment to decide the nature of the response needed. Tab A to Appendix 1 to Annex H is a list of specialized organizations the OSC has available for use. The OSC should mobilize these organizations as required.

(c) DCG members who are called upon for assistance will respond immediately upon notification to evaluate the emergency situation and take actions as necessary. With the exception of the "MULTI-PRODUCT EMERGENCY RESPONSE PLAN FOR INHALATION HAZARDS". The following guidance pertaining to response criteria apply.

Levels of HAZMAT response

<u>Response level</u>	<u>Description</u>	<u>Contact</u>
I	An incident which can be controlled, cleaned up and disposed of by the using organizations. The incident is confined to small area. Only evacuation of the immediate area is required.	Fire Dept/Env Management
II	An incident beyond the using organization's capabilities involving a greater hazard or larger area which could be a potential threat to life or property and which may require a limited evacuation of the area	Fire Department Emergency Med Service Security Forces HAZMAT team SRT Bioenvironmental Engineering Environmental Management Disaster Prep
III	An incident involving a severe hazard or large area which poses an extreme threat to life and property and will probably require a large scale evacuation; or an incident requiring the expertise or resources of county, state, Federal, or private agencies.	All level II Agencies plus the Disaster Control Group

(d) In the event a hazardous material is released on government property and could effect personnel in military base housing, trailer park or any personnel on Eglin property, the Elgin Fire Department OSC will notify Eglin Security Forces to provide warning or evacuation instructions or Eglin personnel immediately.

(4) External Notification and Evacuation Procedures: This section outlines the notifications procedures for the appropriate off base emergency response organization; alerting key local, state and federal emergency response personnel; and providing warning or evacuation instructions to the general public.

(a) Each County had designated a county warning point in the event of a hazardous materials emergency. The County warning points are staffed 24 hours a day and 7 days a week for emergency notifications. In the event a hazardous material is released on government property and could migrate off the facility, thereby effecting the general public, notification to the proper county will be made immediately.

The telephone numbers and designated county warning points are as follows:

County Warning Points

Bay - Communications Center of Division of Emergency Management (DEM)
(850) 784-4000 or (911 for off lines base only)

ESCAMBIA - Communications Center for DEM
(850) 436-9700 or (911 for off lines base only)

HOLMES - Sheriff's Office
(850) 547-3681

OKALOOSA - Emergency Services Dispatch Office
(850) 651-7460 or (911 for off lines base only)

SANTA ROSA - Consolidated Communication Center
(850) 623-0588 or (850) 939-0117

WALTON - Division of Emergency Management Sheriff's Office
(850) 892-8065 or (850) 892-8111

WASHINGTON - Sheriff's Office
(850) 638-6111

(a) Reporting: All spills and accidental discharges of petroleum, oils, lubricants, chemicals, hazardous waste, or hazardous materials, regardless of the quantity, must be reported by the responsible organization and must fill out a spill discharge report on page H.1.C.1. Responsible organizations must hand carry or Fax (882-3761) this spill report to AFDTC/EMC, Bldg. 696 within 4 duty hours of the spill occurrence. Spills 5 gallons or greater, or has a threat to life, health, or has the potential to cause a fire, will be reported to 96 CEG/CEF and 96 SFS by dialing 911. AFDTC/EMCW will complete all regulatory required environmental release reports for all environmental releases which are caused by an Air Force activity, which are caused on an Air Force installation, that could result in litigation or adverse publicity. Additional reporting to MAJCOM, federal, state, or local agencies pursuant to the Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), Toxic Substance Control Act (TSCA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), SARA TITLE III, Emergency Planning and Community Right to Know Act (EPCRA), Clean Air Act (CAA), and Hazardous Materials Transportation Act (HMTA) will be completed by the Eglin Environmental Management Compliance Division.

1. If the Air Force is not the responsible party, the responsible party should be informed of the spill and their response action evaluated by the OSC. If their response actions are inadequate in the judgment of the OSC, they should first be informed of their financial responsibility.

If the spill response actions remain inadequate, the OSC should seek the authority of the state DER to assume control of the spill response. The Base Staff Judge Advocate should be informed in all response actions (1) involving parties other than the Air Force; (2) where there exists a potential for claims against the Air Force because of damage or harm to individuals; or (3) for spills which are significant enough they must be reported to one of the regulatory agencies. If a contractor is involved in a spill, the contracting office should be notified at ext. 882-5435.

2. The requirements for formal notification and reporting of spillage depend upon the severity of the spill. Tab B to Appendix I to Annex H is a summary of Federal Reporting Requirements.

a. At the installation level, the Base Environmental Management Compliance Division (AFDTC/EMC) is the OPR for all pollution incident reporting, both to external environmental regulatory authorities as well as internal Air Force contacts. AFDTC/EMC coordinates with AFDTC/JA on reports involving legal issues or potential damage claims. AFDTC/EMC notifies AFDTC/JA and PA of all reports to external regulatory authorities.

b. AFDTC/EMC makes all decisions regarding either external or internal pollution incident reporting. All spills, large or small, serious or minor, must be reported to AFDTC/EMC within 4 normal work hours using the Spill Discharge Report in Tab C to Appendix I to Annex H.

c. Initial Pollution Incident Reports will be sent to HQ AFMC/CEVC via the WIMS-ES module as soon as possible or within 4 hours after the incident.

d. Most spills are of a minor nature and are not reported to agencies off Eglin AFB. There are a number of factors to take into account when initially determining the severity, including the reliability of the source, the location, the quantity and type of material, and the proximity and nature of adjoining water areas. Considering the severity, the spill should be classified as either a Class I, II, or III spill. These terms are defined on page B.1.3. The initial classification will be used to determine notification procedures until the degree of severity can be confirmed.

3. The AFDTC/EMC, 882-6282, will determine if a reportable spill has occurred.

a. Florida Administrative Code 17-150.300 requires any owner or operator who has knowledge of any release of a hazardous substance from a facility in a quantity equal to or exceeding the reportable quantity in any 24-hour period AFDTC/EMC shall notify the Department by calling the State Warning Point Number, (904) 488-1320/1321, within one working day of discovery of the release. The following is a uniformed classification system for categorizing hazardous material incidents, when calling the State Warning Point to report a spill or release.

Categories

Description

I

Severity of Incident: Minor - A spill, release or potential release of a known hazardous substance. No deaths, if injuries minor in nature.

Extent of Incident: Limited to initial area of involvement and unlikely that will spread. In example, a single structure or an area of 300 feet or less.

Type of Material Involved: Identified hazardous substance that is not radioactive, water reactive or hypergolic. Generally a flammable or combustible liquid could also include limited amounts of corrosives.

Amount of Material Involved: A limited amount of hazardous substance or small container. Would generally be less than 55 gallons.
Population Affected: Evacuation will be limited to the immediate area that can be evacuated in a short period of time for a limited duration (evacuation duration usually does not exceed 4 hours). A limited number of populace will be effected.
Resources: Local resources can handle, includes automatic mutual aid agreements.

Categories
II

Description

Severity of Incident: Moderate - A spill, release or potential release of a known or unknown hazardous substance. No deaths, injuries can be minor to severe.
Extent of Incident: Release may not be controllable without special resources. Limited to several blocks or buildings.
Type of Material Involved: Unknown hazardous substance or hazardous substance that is toxic, reactive, flammable, corrosive, or biological in nature
Amount of Material Involved: An amount limited by the size of the container and the release from it. For example a small leak from a tanker that is controlled level III or IV.
Population Affected: Evacuation will be confined to a designated area that local resources can achieve, extended sheltering is not required.
Resources: Local response agencies may need assistance from outside sources
Notification: Requires notification of the State Warning Point at (800) 320-0519 or (850) 413-9911.

Categories
III

Description

Severity of Incident: Severe - A spill, release or potential release of a hazardous substance with an associated fire, explosion, or toxic /corrosive cloud.
Extent of Incident: Large area may be impacted possibly disrupting essential community services. Extensive environmental contamination is possible.
Type of Material Involved: Unknown hazardous substance or hazardous substance that is capable of producing a toxic/corrosive, gas cloud, is highly reactive or unstable, is a flammable gas or produces significant flammable vapors, is radioactive or chemical/biological pathogen.
Amount of Material Involved: Large amount of hazardous material or limited amount of very dangerous substance.
Population Affected: Presents an immediate danger to the public and operating personnel. Evacuation will require movement of large numbers of populace and/or extending over areas that will have a significant impact on the community. It may require activation of shelters for evacuees.
Resources: Local response agencies may need assistance from outside sources.
Notification: Requires notification of the State Warning Point at (800) 320-0519 or (850) 413-9911.

Categories
IV

Description

Severity of Incident: Major - A spill, release of a hazardous substance that has resulted in a serious fire, explosion, or environmental contamination over an extended area.
Extent of Incident: Has an impact over a wide area with the probability that it will spread to a larger area. The area impacted can be smaller in a highly urbanized area with a large population impacted.

Type of Material Involved: Unknown hazardous substance or hazardous substance that is capable of producing a toxic/corrosive, gas cloud, is highly reactive or unstable, is a flammable gas or produces significant flammable vapors, is radioactive or chemical/biological pathogen.

Amount of Material Involved: Large amount of hazardous material or limited amount of very dangerous substance.

Population Affected: Presents an immediate danger to the public and operating personnel. Evacuation will require movement of large numbers of populace and/or extending over areas that will have a significant impact on the community. It may require activation of shelters for evacuees.

Resources: Local response agencies may need assistance from outside sources.

Notification: Requires notification of the State Warning Point at (800) 320-0519 or (850) 413-9911.

All categories I - IV may involve evacuation from very limited to large scale over considerable periods of time. The resources required at the different levels will depend on urbanized area and the size (resources) of response agencies.

b. A reportable spill occurs when the amount spilled exceeds the reportable quantity as defined in the glossary. If an amount equal to or exceeding the reportable quantity is released or spilled from a fixed facility, AFDTC/EMC shall notify the State Emergency Response Commission (SERC) and Local Emergency Response Committee (LERC) immediately by calling (904) 488-1320/1321 (this telephone is answered 24-hours a day and is an emergency number only). The Florida LERCs do not have response capabilities and only have information and planning responsibilities. Therefore, notification to the SERC fulfills the SARA Title III LERC notification requirement. In addition, CERCLA spills must be reported to the National Response Center (NRC) at (800) 424-8802.

c. Emergency Planning and Community Right-to-Know Act (EPCRA) utilizes the following three lists:

1. Extremely Hazardous Substances (EHSs),
2. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) hazardous substances, and
3. the Toxic Chemicals.

d. These three lists are found in Tab D to Appendix 1 to Annex H. The EHSs are the chemicals with an "X" under the column titled "302" and the CERCLA hazardous substances have an "X" under the column entitled "CERCLA". The list includes the following information on each chemical listed if available:

1. CAS Number - Chemical Abstract Service. Registry.
2. Chemical Name.
3. 302 - EHSs as designated by EPA.

4. CERCLA - hazardous substances as designated under the Comprehensive Environmental Response, Compensation, and Liability Act.

5. 313 - designated as reportable under 313, Toxic Release Inventory, Form R.

6. RCRA - designated as a hazardous waste under the Resource Conservation and Recovery Act.

7. RQ - Reportable Quantity as defined by CERCLA and Section 304 of EPCRA.

8. TPQ1/TPQ2 - Threshold planning quantities for EHSs; If there is both a TPQ1 and TPQ2 listed, the TPQ1 applies if:

9. the solid is a powder with a particle size less than 100 microns (1 micron = a millionth part of a meter,

10. it is handled in solution or molten form; or

11. it has a National Fire Protection Association rating of 2, 3, or 4 for reactivity, otherwise, TPQ2 applies. A blank in the TPQ or RQ means there is no reporting requirement established for that specific chemical at this time. The TPQ and RQ are measured in pounds for the hazardous material covered.

e. Tab E to Appendix I to Ex H is the Section 304 Reporting Form. It was developed by the SERC to familiarize a facility with the information that will be needed when reporting a release over the telephone.

f. There are two types of chemicals which require reporting under EPCRA:

1. Extremely Hazardous Substances (EHSs).

2. Comprehensive Environmental Response, compensation and Liability Act (CERCLA) hazardous substances.

g. As soon as practical after a release which requires notification, the owner or operator of the facility must provide written follow up notice. The Section 304 Form must not be used for the written follow-up notice. The written follow-up notice must include:

1. Information updating the original notification.

2. Actions taken to respond to and contain the release.

3. Any known or anticipated acute or chronic health risks associated with the release.

4. Advice regarding medical attention necessary for exposed individuals.

h. This follow-up notice must be sent to:

1. The SERC 2740, Centerview Drive, Tallahassee, Florida 32399-2149

2. District 1 LEPC, Post Office Box 486, Pensacola, FL 32593-0486.

i. In a 9 Dec 91 letter to the Okaloosa County Emergency Management Office, it was reported that Eglin uses only three extremely hazardous substances which may exceed the threshold planning quantity (TPQ). They are:

1. Hydrazine (CASE #302-021-2), TPQ = 1000 lbs.

2. Chlorine Gas (CASE #7782-50-5), TPQ = 100 lbs.

3. Ammonia Gas (CASE #7664-41-7), TPQ = 100 lbs.

j. In addition, the following EHSs are used on Eglin AFB but do not exceed the TPQ:

1. Formaldehyde (CASE #50-00-0), TPQ = 500 lbs.

2. Ethylene Oxide (CASE #75-21-8), TPQ = 100 lbs.

4. Listed below are additional off-base notifications which may be required under certain circumstances.

a. USCG National Response Center 1-800-424-8802.

b. Environmental Protection Agency (Region IV), Atlanta, GA (404) 526-5062 (24-hour number).

c. When there is a discharge of raw sewage, AFDTC/EMCE will notify the Domestic Wastewater Treatment Section of FDER at 436-8360 and the Okaloosa Co Health Dept (HRS) at 833-9248.

d. A computer report, submitted via the Wang, to HQ AFMC/EMC as required by AFR 19-8, Section A.9.

e. Spills which threaten or pose hazards to coastal waters including the bayous and bays adjacent to Eglin will be reported by AFDTC/EMC to the following agencies:

(1) Florida Marine Patrol

(a) Niceville - (850) 678-1545

(b) Regional Office Pensacola - (850) 438-4903

(c) Tallahassee Office - 1-800-342-1829.

(2) Destin - US Coast Guard - (850) 244-7146

(3) Florida Dept of Natural Resources (Shellfish Dept) - (850) 265-8852.

5. Any off-base notification should be reported to Eglin Public Affairs Office (AFDTC/PA) at (850) 882-3931

6. Petroleum, Oil, and Lubricant (POL) Spill Policy: Recent regulatory changes regarding emergency response operations, spill clean-up, and definitions of hazardous waste have affected Eglin's POL spill clean-up policy. Waste POL and material used to clean POL spills must often be disposed as a hazardous waste. Requirements for emergency response operations by persons outside the work area are very extensive and time consuming. To reduce the impacts on operations from minor spills, and to require organizations to pay for the spills they caused, the following policy was implemented on 5 Aug 91:

a. Each organization is responsible for responding to their POL spills and taking all appropriate containment and clean-up actions, including on-base reporting requirements and disposal. A spill response team is not required from each organization, but your workers must be able to handle the small spills which routinely occur in their work areas under the supervision of AFDTC/EM Oversight. POL products cannot be directed to sewer systems or impervious surfaces (such as grass). They will be absorbed for later disposal.

b. All spills and accidental discharges of petroleum, oils, lubricants, chemicals, hazardous waste, or hazardous materials, regardless of the quantity, must be reported by the responsible organization and must fill out a spill discharge report on page H.1C.1. Responsible organizations must hand carry or Fax (882-3761) this spill report to AFDTC/EMC, Bldg. 696 within 4 duty hours of the spill occurrence. Spills 5 gallons or greater, or has a threat to life, health, or has the potential to cause a fire, will be reported to 96 CEG/CEF via 96 SFS by dialing 911. If the Fire Dept declares an emergency condition, they can take control of the situation, including the tasking of the organization's clean-up detail.

c. For all spills greater than 10 gallons, the organizational commander responsible for the spill will submit a Spill Discharge Report (Tab C to Appendix 1 to Annex H) to the AFDTC/EMC within 4 duty hours of the spill occurrence. The ADTC/EMC will use this information to report to MAJCOM and the State of Florida as required. This policy requires acute management attention and planning to insure each organization is prepared to respond to all releases for which they are responsible for ONLY IF IT IS SAFE TO SO.

7. Finally, as a rule of thumb; when in doubt, REPORT.

Tabs:

- A-Specialized Organizations Available to the OSC
- B-Summary of Federal Reporting Requirements
- C-Spill Discharge Report
- D-Consolidated List of Chemicals
- E-Section 304 Reporting Form
- F-SARA Title III Spill Plans

TAB A TO APPENDIX I TO ANNEX H TO AFDTC PLAN 32-6
SPECIALIZED ORGANIZATIONS AVAILABLE TO THE OSC

REFERENCES: See Basic Plan

1. **GENERAL:** The following is a list of specialized organizations who are to respond as part of or in conjunction with the DCG, as listed in Annex A to AFDTC Plan 32-1, to any and all spill situations when notified by the ECP and/or the OSC.

<u>ORGANIZATION</u>	<u>TELEPHONE #</u> <u>(DUTY HOURS)</u>
On-Scene-Commander	3-4020 (ECP)
Medical Representative	3-8227
Fire Department	911
Environmental Management Compliance Division 24 hour Emergency Spill Response Manager	2-6282 ext. 502 pagers 885-1739 pagers 885-0910
Bioenvironmental Engineering 24 hour emergency	3-8607 ext.263 5-0890/0448
Security Forces Squadron	2-2502
Public Affairs	2-3931
Civil Engineer Fire Department Disaster Preparedness Flight Environmental Management Compliance Division Liquid Fuels Maintenance CE Spill Response Team	2-5856 (24 hrs)
Explosive Ordinance Disposal	3-4020 (ECP)
Safety	2-5204
Staff Judge Advocate	2-4611
Chaplain	2-2111

SVS/Mortuary Officer

3-4020 (ECP)

Airfield Management

2-5313

Photographer

2-2861

Transportation

2-4581

Tenant Unit Representatives

3-4020 (ECP)

For spills to the sanitary sewer system
contact Wastewater Treatment Operations

2-5260

For spills requiring soil remediation
contact Petroleum Soil Treatment Facility

2-7791 ext.207

2. The Eglin Command Post (883-4020) should be requested to contact any organization during off-duty hours unless otherwise listed.

Exhibits:

1-CE Spill Response Team

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EXHIBIT I TO TAB A TO APPENDIX I TO ANNEX H TO AFDTC PLAN 32-6
96 CEG SPILL RESPONSE TEAM

REFERENCES: See Basic Plan

1. **General:** The 96 CEG Spill Response Team may be required to respond to a wide range of pollution incidents and must be trained and properly equipped to manage such response actions. Listed below is the 96 CEG Spill Response Team Roster.

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida
February 1998
96th Civil Engineer Spill Response Team Roster

		DUTY PHONE	HOME PHONE
CHIEF PRIMARY ALTERNATE	SMSgt. Rray	882-3844	678-5039
	MSgt. Bray	882-3844	939-3884
ASST. CHIEF PRIMARY ALTERNATE	MSgt. Bridwell	882-3844	651-1281
	Mr. Lindsey	882-3844	892-4688
EGLIN EPCRA COORD.	Mrs. Judy Ramsey	882-6282	314-0797 or 885-1713

EQUIPMENT	OPERATOR	DUTY PHONE	HOME PHONE
Boat Crew #1	TSgt. Hindall	882-9260	609-0488
	Sra Durant	882-9260	897-0011
	Sra Martin	882-9260	651-5720
Boat Crew #2	Mr. Bush	882-9260	836-4674
	SSgt. Jateff	882-9260	651-4176
	SSgt. Scott	882-9260	651-3132
Boat Crew #3	SSgt. Miller	882-9260	729-3898
	Sra Brooks	882-9260	651-2091
	Sra Wood	882-9260	678-5720
Boat Crew #4	Mr. Thorne	882-9260	836-4685
	TSgt. Jordan	882-9260	609-1424
	Sra Bullock	882-9260	729-2317

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EQUIPMENT	OPERATOR	DUTY PHONE	HOME PHONE
Support Crew #1	Mr. Barrow	882-9260	537-7553
	SSgt. Lennemen	882-9260	651-2891
	Mr Taylor	882-9260	682-4909
Support Crew #2	TSgt. Chacon	882-9260	651-9846
	Mr. Dukes	882-9260	682-3665
	SSgt. Edwards	882-9260	864-3214
Environmental Management Emergency Responders	Mr. Bruce Stippich	882-6282 ext. 337	939-9709
	Mrs. Judy Ramsey	882-6282 ext. 502	Pager 885-1739 314-0797
	SMSgt Petrushak	882-6282 ext. 326	Pager 885-1713 682-6273
	Mr. Steve Williams	882-7791 ext. 210	Pager 885-0910 244-3963

Note: Additional manpower may be recalled for duty through Eglin Fire Department from squadron 24 - hour Standby Roster.

PERSONAL DATA PRIVACY ACT OF 1974

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

TAB B TO APPENDIX 1 TO ANNEX H TO AFDTIC PLAN 32-6
SUMMARY OF FEDERAL AND STATE REPORTING REQUIREMENTS

REFERENCES: See Basic Plan

GENERAL: Table 1. is a summary of Federal Reporting Requirements.

<u>STATUTE OR REGULATION</u>	<u>REPORTING REQUIREMENT</u>	<u>REPORTABLE QUANTITY/ NARRATIVE THRESHOLD</u>	<u>REC AUTH</u>	<u>REPT DEADLINE</u>	<u>STATUTORY/RI REFERENCE</u>
CAA	Excess emission rpt.	Excess over amount allowed in permit	EPA	Written rpt quarterly	40 CFR 60.7(c)
CAA	Physical or operational changes in facility that may increase emission rate	Change in facility which may increase emission of air pollutants to which the standard applies	EPA	Written rpt 60 days or ASAP before change takes place	40 CFR 60.7(a)
CAA	Vinyl chloride releases	Relief valve discharge of vinyl chloride	EPA	Written rpt within 10 days	40 CFR 61.65(a)
CERCLA	Haz sub. release above reportable quantity	Varies. Reporting is required when reportable quantity is released in a 24-hr period CERCLA listed haz sub, 40 CFR 302.5 (a) and Table 302.4, CERCLA unlisted haz sub, i.e., RCRA haz waste, see 40 CFR 302.5(b)	Natl Resp Centr	Immediately	42 USC 9603(a) 40 CFR 302
CWA	Oil releases to navigable waters	Release which either: a) causes a film/sheen/discoloration of surface or adjoining shorelines or emulsion deposits. b) violates applicable water quality standards	Natl Resp Centr	Immediately	33 USC 1321(b)(3) 40 CFR 110.10
CWA	Release of CWA Haz Substances to "Navigable Waters"	Varies: Reporting is required when "reportable quantity" released within a 24 hour period	Natl Resp Centr	Immediately	33 USC 1321(b)(5) 40 CFR 117.21 40 CFR Tbl 117.3

TABLE 1 (Continued)

<u>STATUTE OR REGULATION</u>	<u>REPORTING REQUIREMENT</u>	<u>REPORTABLE QUANTITY/ NARRATIVE THRESHOLD</u>	<u>REC AUTH</u>	<u>REPT DEADLINE</u>	<u>STATUTORY/REG REFERENCE</u>
CWA	Reporting requirement	Reporting required when within a 24-hour period	EPA	Written rpt	40 CFR 112.4(a)
CWA	Reporting requirement for facilities with SPCC Plan	Reporting required when within 12 mos: a) discharge of 1,000 gal or more of oil in nav waters or b) two spill events reportable under CWA 3119d) (5)	EPA	Written rpt within 60 days	40 CFR 112.4(a)
CWA	NPDES permit excursion	Any noncompliance with permit conditions which may endanger health of environment	EPA Reg Admin	24 hr w/written follow-up within 5 days of non compliance	40 CFR 122.41(1)(6)
HMTA	Haz Materials Incidents	See list of reportable incidents, 49CFR171.15-16, AFR 75-1	Natl Resp Centr	Immediately/ written follow up within 30 days	40 CFR 171.15 and 171.6
RCRA	Emergency release at SD facility	40CFR264.56(a-c) and 265.56(a-c) for details authorities if help is needed	State local	Immediately	40 CFR 264.56 and 265.56 (a-c)
RCRA	Possible release due to Haz waste shipped and lost/unaccounted for	If generator does not receive signed manifest within 35 days, he must contact transporter. If within 45 days signed manifest is not received, reporting is required	EPA Reg Admin	Within 45 days of date waste was accepted by original transporter written exception rpt must be filed	40 CFR 262.42
RCRA	Releases from solid waste mgt units to upper most aquifer	"Statistically Significant" increase in constituents specified in permits	EPA	7 days Reg Admin	40 CFR 264.99
RCRA	Releases from surface impoundments at permitted TSD facilities specified at 40CFR264.227(a)	When surface impoundments must be removed from service as specified	EPA Reg Admin	7 days	40 CFR 264.227(b)
RCRA	Release from tank sys or secondary confinement those under 1 lb. Which are immediately cleaned up (see also UST below)	Releases other than those under 1 lb. Which are immediately cleaned up must be reported	EPA Reg Admin	24 hrs follow up within 30 days	40 CFR 264.196 (d)(1)(3)
RCRA	Releases from TSD facil-	Significant increase in	EPA	7 days/	40 CFR 265.93

ities w/interim status

constituents or signifi
cant increase or decrease in phReg
Admin15 days for
written follow-up

(d)(1)(2)

TABLE 1 (Continued)

<u>STATUTE OR REGULATION</u>	<u>REPORTING REQUIREMENT</u>	<u>REPORTABLE QUANTITY/ NARRATIVE THRESHOLD</u>	<u>REC AUTH</u>	<u>REPT DEADLINE</u>	<u>STATUTORY/REG REFERENCE</u>
RCRA <u>USTs:</u>					
	a) Overfills/spills	25 gal of petroleum or CERCLA reportable quantity of haz sub	Imple- menting agency EPA or state	24 hrs	40 CFR 280.53
	b) Release (suspected)	See list of reportable conditions 40 CFR 280.50 and (FAC) 62-761 to 762	Imple menting agency EPA or state	24 hrs	40 CFR 280.50 FAC 62-761 FAC 62-762
	c) Release (confirmed)	See list of reportable conditions 40 CFR 280.61 and (FAC) 62-761 to 762	Imple agency EPA or state	24 hrs/ written follow-up within 20 days 2 nd written follow-up 45 days of release	40 CFR 280.61 FAC 62-761 FAC 62-762
SARA Title	Extremely Haz Sub Release (EHS) above reportable quantity	Varies. Reporting is required when report- able quantity is re- leased in a 24-hr period EHS, 40CFR355, Appendix A or B	LEPC SERC	Immediately if potent is leavi base	42 USC 110 40 CFR 355.40
TSCA	Emergency incidents of environmental contamination	Substance or mixture: Seriously threatens humans w/cancer, birth defects, mutation, death or serious or prolonged incapacitation -Seriously threatens non-human organism population	EPA Reg	Immediately/ 15 days for written follow-up	15 USC 2607(a) 43 F.R.11110, 16 Mar 78

TABLE 1 (Continued)

<u>STATUTE OR REGULATION</u>	<u>REPORTING REQUIREMENT</u>	<u>REPORTABLE QUANTITY/ NARRATIVE THRESHOLD</u>	<u>REC AUT</u>	<u>REPT DEADLINE</u>	<u>STATUTORY/REG REFERENCE</u>
TSCA 15 USC 2607	Substantial risk information	Information which must be reported: Any instance of cancer, birth defects, mutageni- city, or death or seri- ous or prolonged incapa- citation if one or a few chemicals strongly implicated, or Any pattern of effects or evidence which reason- ably supports conclusion that substance or mixture causes cancer, mutation, birth defects, death or serious or prolonged incapacitation	EPA Doc processing Center	5 days	43 F.R.11110 16 Mar 78
TSCA	PCBs	Spills, 10-lbs or more of PCB material in excess of 50 PPM	Natl Resp center Reg Office	Immediately NLT 24 hrs after discovery	40 CFR 761.125 (a)(1) or other

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5
February 1998

TAB C TO APPENDIX 1 TO ANNEX H TO AFDTC PLAN 32-6
SPILL DISCHARGE REPORT

REFERENCES: See Basic Plan

Eglin Air Force Base Spill Discharge Report

NOTE: This form is for reporting all spills and accidental discharges of petroleum, oils, lubricants, chemicals, and hazardous waste regardless of the quantity. Please complete this form and hand carry or Fax (882-3761) to AFDTC/EMC, Bldg. 696 within 4 duty hours of the spill occurrence.

Responsible Organization: _____

Point of Contact: _____ Telephone: _____

Date of Spill: _____ Time of Spill: _____ hrs

Type of Pollutant: _____

Estimated Amount (lbs): _____

Location of Spill: _____

Latitude: _____ Longitude: _____

Cause of Spill: _____

Containment/Cleanup Actions: _____

Actions taken to prevent future occurrence: _____

Name and Grade of Commander

Signature

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

TAB D TO APPENDIX I TO ANNEX H TO AFDTC PLAN 32-6
CONSOLIDATED LIST OF CHEMICALS

REFERENCES: See Basic Plan

GENERAL: Attached is a consolidated list of chemicals. This list is alphabetical by chemical name.

EXHIBIT:

1 - Consolidated List of Chemicals (Alphabetized by Chemical Name)

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
(1,2-Phenylenebis(iminocarbonothioyl)) biacarbamic acid diethyl ester	PHENYLENEBISIMINOCARBONOTHIOYLBISCARBAMIC ACID DIET	23564069			X		
(2-(4-Phenoxy-phenoxy)-ethyl)carbamic acid ethyl ester	PHENOXYPHENOXYETHYLCARBAMICACIDETHYLESTER	72490018			X		
(4-Chloro-2-methylphenoxy) acetate sodium salt	CHLOROMETHYLPHENOXYACETATESODIUMSALT	3653483			X		
(4-Chloro-2-methylphenoxy) acetic acid	CHLOROMETHYLPHENOXYACETICACID	94746			X		
-Except Barium Sulfate (under 313)	BARIUM COMPOUNDS EXCEPTION	0					
-Except C.I. Pigment Blue 15 (under 313)	COPPER COMPOUNDS EXCEPTION2	0					
-Except C.I. Pigment Green 36 (under 313)	COPPER COMPOUNDS EXCEPTION4	0					
-Except C.I. Pigment Green 7 (under 313)	COPPER COMPOUNDS EXCEPTION3	0					
-Except copper phthalocyanine compounds (under 313)##	COPPER COMPOUNDS EXCEPTION1	0					
alpha-(2-Chlorophenyl)-alpha-4-chlorophenyl-5-pyrimidinemethanol	CHLOROPHENYLCHLOROPHENYLPYRIMIDIN	60168889			X		
alpha-Butyl-alpha-(4-chlorophenyl)-1H-1,2,4-triazole-1-propanenitrile	BUTYLCHLOROPHENYLTIAZOLE-1-P	88671890			X		
1-(2-(2,4-Dichlorophenyl)-2-(2-propenylloxy)ethyl)-1H-imidazole	DICHLOROPHENYLPROPENYLOXYETHYLMIDAZO	35554440			X		
1-(2-(2,4-Dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl)-methyl-1H-1,2,4-triazole	DICHLOROPHENYLPROPYLDIOXOLANYLMETHYL	60207901			X		
1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride	CHLOROALLYLTIAZA-1-AZONIAADAMANTANE CHLOR	4080313			313		
1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone	CHLOROPHENOXYDIMETHYLTIAZOLYL	43121433			X		
1,1,1,2-Tetrachloro-2-fluoroethane	TETRACHLOROFLUOROETHANE (HCFC-121A)	354110			313		
1,1,1,2-Tetrachloroethane	TETRACHLOROETHANE	630206		100	313	U208	
1,1,1-Trichloroethane	TRICHLOROETHANE	71556		1,000	313	U226	
1,1,2,2-Tetrachloro-1-fluoroethane	TETRACHLOROFLUOROETHANE (HCFC-121)	354143			313		
1,1,2,2-Tetrachloroethane	TETRACHLOROETHANE	79345		100	313	U209	
1,1,2-Trichloroethane	TRICHLOROETHANE	79005		100	313	U227	
1,1-Dichloro-1,2,2,3-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225CC)	13474889			313		
1,1-Dichloro-1,2,2-trifluoroethane	DICHLOROTRIFLUOROETHANE11	812044			313		
1,1-Dichloro-1,2,3,3,3-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225EB)	111512562			313		
1,1-Dichloro-1-fluoroethane	DICHLOROFLUOROETHANE	1717006			313		
1,1-Dichloroethane	DICHLOROETHANE	75343		1,000	X	U076	
1,1-Dichloroethylene	DICHLOROETHYLENE	75354		100	X	U078	10,000
1,1-Dichloropropane	DICHLOROPROPANE11	78999			1,000		
1,1-Dimethyl hydrazine	DIMETHYLHYDRAZINE	57147	1,000	10	313	U098	15,000
1,1'-Methylene bis(4-isocyanatocyclohexane)	METHYLENEBISISOCYANATOCYCLOHEXANE)	5124301			313#		
1,2,3-Trichloropropane	TRICHLOROPROPANE	96184			313		
1,2,4,5-Tetrachlorobenzene	TETRACHLOROBENZENE	95943		5,000		U207	
1,2,4-Trichlorobenzene	TRICHLOROBENZE	120821		100	313		
1,2,4-Trimethylbenzene	TRIMETHYLBENZ	95636			313		
1,2-Butylene oxide	BUTYLENEOXIDE	106887		1*	313		
1,2-Dibromo-3-chloropropane	DIBROMOCHLORO	96128		1	313	U066	
1,2-Dibromoethane	DIBROMOETHANE	106934		1	313	U067	
1,2-Dichloro-1,1,2,3,3-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225BB)	422446			313		
1,2-Dichloro-1,1,2-trifluoroethane	DICHLOROTRI-FLUOROETHANE12	354234			313		
1,2-Dichloro-1,1,3,3,3-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225DA)	431867			313		
1,2-Dichloro-1,1-difluoroethane	DICHLORODIFLUOROETHANE (HCFC-132B)	1649087			313		
1,2-Dichlorobenzene	DICHLOROBENZENE	95501		100	313	U070	
1,2-Dichloroethane	DICHLOROETHANE	107062		100	313	U077	
1,2-Dichloroethylene	DICHLOROETHYLENE	156605		1,000		U079	
1,2-Dichloroethylene	DICHLOROETHYLENE	540590			313		
1,2-Dichloropropane	DICHLOROPROPANE12	78875		1,000	313	U083	

Consolidated Index of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
1,2-Diphenylhydrazine	DIPHENYLHYDRAZI	122667		10	313	U109	
1,2-Ethanediamine	ETHANEDIAMINE	107153	10,000	5,000			20,000
1,2-Phenylenediamine	PHENYLENEDIAMINE	95545			313		
1,2-Phenylenediamine dihydrochloride	PHENYLENEDIAMINEDIHYDROCHLORIDE	615281			313		
1,2-Propadiene	PROPADIENE	463490					10,000
1,3,5-Trinitrobenzene	TRINITROBENZENE	99354		10		U234	
1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	BENZENEDICARBONITRILETETRACHLORO-	1897456			X		
1,3-Bis(methylisocyanate)cyclohexane	BISMETHYLISOCYANATECYCLOHEXANE	38661722			313#		
1,3-Butadiene	BUTADIENE	106990		1*	313		10,000
1,3-Butadiene, 2-methyl-	BUTADIENEMETHYL	78795		100			10,000
1,3-Dichloro-1,1,2,2,3-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225CB)	507551			313		
1,3-Dichloro-1,1,2,3,3-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225EA)	136013791			313		
1,3-Dichlorobenzene	DICHLOROBENZENE	541731		100	313	U071	
1,3-Dichloropropane	DICHLOROPROPANE13	142289		5,000			
1,3-Dichloropropene	DICHLOROPROPENE13	542756		100	X	U084	
1,3-Dichloropropylene	DICHLOROPROPYLEN	542756		100	313	U084	
1,3-Pentadiene	PENTADIENE	504609		100		U186	10,000
1,3-Phenylene diisocyanate	PHENYLENEDIISOCYANATE	123615			313#		
1,3-Phenylenediamine	PHENYLENEDIAMINE	108452			313		
1,3-Propane sultone	PROPANE SULTONE	1120714		10	X	U193	
1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene	HEPTACHLOROTETRAHYDRO-4,7-METHANO-1	76448		1	X	P059	
1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1.alpha.,4.alpha.,4a.beta.,5.alpha.,8.alpha.,8a.beta.)-	DIMETHANONAPHTHALENEHEXACHLORO-1,4,4	309002	500/10,000	1	X	P004	
1,4-Bis(methylisocyanate)cyclohexane	BISMETHYLISOCYANATECYCLOHEXANE	10347543			313#		
1,4-Cyclohexane diisocyanate	CYCLOHEXANEDIISOCYANATE	2556367			313#		
1,4-Dichloro-2-butene	DICHLORO2BUTENE	764410		1	313	U074	
1,4-Dichlorobenzene	DICHLOROBENZENE	106467		100	313	U072	
1,4-Dioxane	DIOXANE	123911		100	313	U108	
1,4-Naphthoquinone	NAPHTHOQUINONE	130154		5,000		U166	
1,4-Phenylene diisocyanate	PHENYLENEDIISOCYANATE	104494			313#		
1,4-Phenylenediamine dihydrochloride	PHENYLENEDIAMINEDIHYDROCHLORIDE	624180			313		
1,5-Naphthalene diisocyanate	NAPHTHALENEDIISOCYANATE	3173726			313#		
1-Acetyl-2-thiourea	ACETYLTHIOUREA	591082		1,000		P002	
1-Amino-2-methylanthraquinone	AMINOMETHYLANTH	82280			313		
1-Bromo-1-(bromomethyl)-1,3-propanedicarbonitrile	BROMOBROMOMETHYL-1,3-PROPANEDICARBONITRILE	35691657			313		
1-Buten-3-yne	BUTENYNE	689974					10,000
1-Butene	BUTENE1	106989					10,000
1-Butyne	BUTYNE	107006					10,000
1-Chloro-1,1,2,2-tetrafluoroethane	CHLOROTETRAFLUOROETHANE1	354256			313		
1-Chloro-1,1-difluoroethane	CHLORODIFLUOROETHANE	75683			313		
1-Chloropropylene	CHLOROPROPYLENE	590216					10,000
1-Naphthalenol, methylcarbamate	NAPHTHALENOLMETHYLCARBAMATE	63252		100	X		
1-Nitropyrene	NITROPYRENE	5522430			313+		
1-Pentene	PENTENE	109671					10,000
1-Propene	PROPENE1	115071			X		10,000
1-Propene, 1-chloro-	PROPENECHLORO-1	590216					10,000

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
1-Propene, 2-chloro-	PROPENECHLORO-2	557982					10,000
1-Propene, 2-methyl-	PROPENEMETHYL-	115117					10,000
1-Propyne	PROPYNE	74997					10,000
1H-Azepine-1-carboxylic acid, hexahydro-5-ethyl ester	AZEPINECARBOETHOICACIDHEXAHYDRO-5-ETHYL ESTER	2212671			X		
1H-Isindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-	ISOINDOLEDIONETETRAHYDROTRICHLOROMETHYLTHIO	133062		10	X		
2-[(Ethoxymethyl-1-methylethyl)amino]phosphinothioyl]oxy] benzoic acid 1-methylethyl ester	ETHOXYLMETHYLETHYLAMINOPHOSPHINOTHIOYLOXYBENZOIC ACID 1-METHYLETHYL ESTER	25311711			X		
2-(1-Ethoxymino) butyl-5-(2-ethylthio)propyl-3-hydroxy-2-cyclohexen-1-one	ETHOXYMINOBUTYLETHYLTHIOPROPYLHYDROXYL	74051802			X		
2-(3,4-Dichlorophenyl)-4-methyl-1,2,4-oxadiazolidine-3,5-dione	DICHLOROPHENYLMETHYLOXADIAZOLIDINEDIO	20354261			X		
2-(4-[(6-Chloro-2-benzoxazolyl)oxy]phenoxy)propanoic acid, ethyl ester	CHLOROBENZOXAZOXYLENOXYPHENOXYPROPANOICACID, ETHYL ESTER	66441234			X		
2-(4-[(6-Chloro-2-quinazolinyl)oxy]phenoxy)propanoic acid ethyl ester	CHLOROQUINOXALINYOXYPHENOXYPROPANOIC ACID ETHYL ESTER	76578148			X		
2-(4-(2,4-Dichlorophenoxy)phenoxy)propanoic acid, methyl ester	DICHLOROPHENYLOXYPHENOXYPROPANOICACIDMETHYL ESTER	51338273			X		
2-(4-(5-(Trifluoromethyl)-2-pyridinyl)oxy]phenoxy)propanoic acid, butyl ester	TRIFLUOROPHENYLOXYPHENOXYPROPANOICACIDBUTYL ESTER	69806504			X		
2-(4-Methoxy-6-methyl-1,3,5-triazin-2-yl)-methylamino)carbonyl(amino)sulfonyl)-, methyl ester	METHOXYMETHYL-1,3,5-TRIAZIN-2-YLMETHYLAMINOCARBONYLAMINO-SULFONYLMETHYL ESTER	101200480			X		
2-(4-Thiazolyl)-1H-benzimidazole	THIAZOLYL-1H-BENZIMIDAZOLE	148798			X		
2,2,3,3-Tetramethylcyclopropane carboxylic acid cyanol(3-phenoxyphenyl)methyl ester	TETRAMETHYLCYCLOPROPANECARBOXYLICACIDCYANOPHENOL(3-PHENOXYPHENYL)METHYL ESTER	39515418			X		
2,2,4-Trimethylhexamethylene diisocyanate	TRIMETHYLHEXAMETHYLENEDIISOCYANATE	16938220			313#		
2,2,4-Trimethylpentane	TRIMETHYLPENTANE	540841		1*			
2,2'-Bioxirane	BIOXIRANE	1464535	500	10	X	U085	
2,2-Dibromo-3-nitropropionamide	DIBROMONITROPROPIONAMIDE	10222012			313		
2,2-Dichloro-1,1,1,3,3-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225AA)	128903219			313		
2,2-Dichloro-1,1,1-trifluoroethane	DICHLOROTRIFLUOROETHANE22	306832			313		
2,2-Dichloropropionic acid	DICHLOROPROPIONIC ACID	75990		5,000			
2,2-Dimethyl-1,3-benzodioxol-4-yl methylcarbamate	DIMETHYLBENZODIOXOL-4-YLMETHYL CARBAMATE	22781233			X		
2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylic acid (1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isindol-2-yl)methyl ester	DIMETHYLMETHYLPROPENYLCYCLOPROPANECARBOXYLIC ACID (1,3,4,5,6,7-HEXAHYDRO-1,3-DIOXO-2H-ISINDOL-2-YL)METHYL ESTER	7696120			X		
2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylic acid (3-phenoxyphenyl)methyl ester	DIMETHYLMETHYLPROPENYLCYCLOPROPANECARBOXYLIC ACID (3-PHENOXYPHENYL)METHYL ESTER	26002802			X		
2,2-Dimethylpropane	DIMETHYLPROPANE	463821					10,000
2,2'-Methylenebis(4-chlorophenol)	METHYLENEBISCHLOROPHENOL	97234			X		
2,3-Dihydro-5,6-dimethyl-1,4-dithia 1,1,4,4-tetraoxide	DIHYDRODIMETHYLDITHIANTETRAOXIDE	55290647			X		
2,3,4,6-Tetrachlorophenol	TETRACHLOROPHENOL	58902		10			
2,3,4-Trichlorophenol	TRICHLOROPHENOL-A	15950660		10			
2,3,5-Trichlorophenol	TRICHLOROPHENOL-B	933788		10			
2,3,5-Trimethylphenyl methylcarbamate	TRIMETHYLPHENYLMETHYL CARBAMATE	2655154			313		
2,3,6-Trichlorophenol	TRICHLOROPHENOL-C	933755		10			
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	TETRACHLORODIBENZO-P-DIOXIN (TCDD)	1746016		1			
2,3-Dichloro-1,1,1,2,3-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225BA)	422480			313		
2,3-Dichloropropene	DICHLOROPROPENE23	78886		100	313		
2,4-(1H,3H)-Pyrimidin-6-one, 5-bromo-6-methyl-3-(1-methylpropyl), lithium salt	PYRIMIDINEDIONE5-BROMO-6-METHYL-3-(1-METHYLPROPYL) LITHIUM SALT	53404196			X		
2,4,4-Trimethylhexamethylene diisocyanate	TRIMETHYLHEXAMETHYLENEDIISOCYANATE	15646965			313#		
2,4,5-T acid	T ACID	93765		1,000		U232	
2,4,5-T amines	T AMINES	1319728		5,000			
2,4,5-T amines	T AMINES	2008460		5,000			
2,4,5-T amines	T AMINES	3813147		5,000			
2,4,5-T amines	T AMINES	6369966		5,000			

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
2,4,5-T amines	T AMINES	6369977		5,000			
2,4,5-T esters	T ESTERS	93798		1,000			
2,4,5-T esters	T ESTERS	1928478		1,000			
2,4,5-T esters	T ESTERS	2545597		1,000			
2,4,5-T esters	T ESTERS	25168154		1,000			
2,4,5-T esters	T ESTERS	61792072		1,000			
2,4,5-T salts	T SALTS	13560991		1,000			
2,4,5-TP esters	TP ESTERS	32534955		100			
2,4,5-Trichlorophenol	TRICHLOROPHENOL-D	95954		10	313		
2,4,6-Trichlorophenol	TRICHLOROPHENOL-E	88062		10	313		
2,4-D	D	94757		100	313	U240	
2,4-D 2-ethyl-4-methylpentyl ester	DETHYLMETHYLPENTYL ESTER	53404378			313		
2,4-D 2-ethylhexyl ester	DETHYLHEXYL ESTER	1928434			313		
2,4-D Acid	D ACID	94757		100	X	U240	
2,4-D butoxyethyl ester	BUTOXYETHYL ESTER-2,4-D	1929733		100	313		
2,4-D butyl ester	D BUTYL ESTER	94804		100	313		
2,4-D chlorocrotyl ester	CHLOROCROTYL ESTER	2971382		100	313		
2,4-D Esters	D ESTERS	94111		100	X		
2,4-D Esters	D ESTERS	94791		100			
2,4-D Esters	D ESTERS	94804		100	X		
2,4-D Esters	D ESTERS	1320189		100	X		
2,4-D Esters	D ESTERS	1928387		100			
2,4-D Esters	D ESTERS	1928616		100			
2,4-D Esters	D ESTERS	1929733		100	X		
2,4-D Esters	D ESTERS	2971382		100	X		
2,4-D Esters	D ESTERS	25168267		100			
2,4-D Esters	D ESTERS	53467111		100			
2,4-D isopropyl ester	D ISOPROPYL E	94111		100	313		
2,4-D propylene glycol butyl ether ester	D PROPYLENE GLYCOL BUTYL ETHER ESTER	1320189		100	313		
2,4-D sodium salt	DSODIUM SALT	2702729			313		
2,4-D, salts and esters	D SALTS	94757		100		U240	
2,4-DB	DB	94826			313		
2,4-Diaminoanisole	DIAMINOANISOLE	615054			313		
2,4-Diaminoanisole sulfate	DIAMINOANISOLE Sulf	39156417			313		
2,4-Diaminotoluene	DIAMINOTOLUENE	95807		10	313		
2,4-Dichlorophenol	DICHLOROPHENOL	120832		100	313	U081	
2,4'-Disocyanatodiphenyl sulfide	DIISOCYANATODIPHENYLSULFIDE	75790873			313#		
2,4-Dimethylphenol	DIMETHYLPHENOL	105679		100	313	U101	
2,4-Dinitrophenol	DINITROPHENOLB	51285		10	313	P048	
2,4-Dinitrotoluene	DINITROTOLUENEB	121142		10	313	U105	
2,4-Dithioburet	DITHIOBIURET-2,4	541537	100/10,000	100	313	P049	
2,4-DP	DP	120365			313		
2,5-Cyclohexadiene-1,4-dione, 2,3,5-tris(1-aziridinyl)-	CYCLOHEXADIENEDIONETRIS(1-AZIRIDINYL)-	68768			X		
2,5-Dinitrophenol	DINITROPHENOLC	329715		10			
2,6-Dichloro-4-nitroaniline	DICHLORONITROANILINE	99309			X		
2,6-Dichlorophenol	DICHLOROPHENOL	87650		100		U082	

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
2,6-Dimethylphenol	DIMETHYLPHENOL	576261			313		
2,6-Dinitrophenol	DINITROPHENOLD	573568		10			
2,6-Dinitrotoluene	DINITROTOLUENEC	606202		100	313	U106	
2,6-Xyldine	XYLIDINE	87627			313		
2-Acetylaminofluorene	ACETYLAMINOFLUOREN	53963		1	313	U005	
2-Aminoanthraquinone	AMINOANTHRAQUINONE	117793			313		
2-Bromo-2-nitropropane-1,3-diol	BROMONITROPROPANE-1,3-DIOL	52517			313		
2-Butenal	BUTENAL	4170303	1,000	100	X	U053	20,000
2-Butenal, (e)-	BUTENAL, (E)-	123739	1,000	100		U053	20,000
2-Butene	BUTENE2	107017					10,000
2-Butene, (E)	BUTENE-E	624646					10,000
2-Butene, 1,4-dichloro-	BUTENEDICHLORO-	764410		1	X	U074	
2-Butene-cis	BUTENE-CIS	590181					10,000
2-Butene-trans	BUTENE-TRANS	624646					10,000
2-Chloro-1,1,1,2-tetrafluoroethane	CHLOROTETRAFLUOROETHANE2	2837890			313		
2-Chloro-1,1,1-trifluoroethane	CHLOROTRIFLUOROETHANE (HCFC-133A)	75887			313		
2-Chloro-6-(trichloromethyl)pyridine	CHLOROTRICHLOROMETHYLPYRIDINE	1929824			X		
2-Chloro-N-(((4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino)carbonyl)benzenesulfonamide	CHLOROMETHOXYMETHYLTIAZINYLAMINO)CA	64902723			X		
2-Chloro-N-(1-methylethyl)-N-phenylacetamide	CHLOROMETHYLETHYLPHENYLACETAMIDE	1918167			X		
2-Chloro-N-(2-chloroethyl)-N-methylethanamine	CHLOROCHLOROETHYL)-N-METHYLETHANAMINE	51752	10		X		
2-Chloroacetophenone	CHLOROACETOPHENONE	532274		1*	313		
2-Chloroethyl vinyl ether	CHLOROETHYL VINYL ETHER	110758		1,000		U042	
2-Chloronaphthalene	CHLORONAPHTHALENE	91587		5,000		U047	
2-Chlorophenol	CHLOROPHENOL	95578		100		U048	
2-Chloropropylene	CHLOROPROPYLENE	557982					10,000
2-Cyclohexyl-4,6-dinitrophenol	CYCLOHEXYLDINITROPHENOL	131895		100		P034	
2-Ethoxyethanol	ETHOXYETHANOL	110805		1,000	313	U359	
2-Mercaptobenzothiazole	MERCAPTOBENZOTHAZOLE (MBT)	149304			313		
2-Methoxyethanol	METHOXYETHANOL	109864			313		
2-Methyl-1-butene	METHYLBUTENE2	563462					10,000
2-Methylacetonitrile	METHYLLACTONITRILE	75865	1,000	10	313	P069	
2-Methylpropene	METHYLPROPENE	115117					10,000
2-Methylpyridine	METHYLPYRIDINE	109068		5,000	313	U191	
2-Nitrophenol	NITROPHENOLA	88755		100	313		
2-Nitropropane	NITROPROPANE	79469		10	313	U171	
2-Pentene, (E)-	PENTENE2	646048					10,000
2-Pentene, (Z)-	PENTENEZ	627203					10,000
2-Phenylphenol	PHENYLPHENOL	90437			313		
2-Picoline	PICOLINE	109068		5,000	X	U191	
2-Propanamine	PROPANAM	75310					10,000
2-Propen-1-amine	PROPENAM	107119	500		X		10,000
2-Propen-1-ol	PROPENOL	107186	1,000	100	X	P005	15,000
2-Propenal	PROPENAL	107028	500	1	X	P003	5,000
2-Propenenitrile	PROPENENITRILE	107131	10,000	100	X	U009	20,000
2-Propenenitrile, 2-methyl-	PROPENENITRILEMETHYL-	126987	500	1,000	X	U152	10,000
2-Propenoyl chloride	PROPENOYLCHLORIDE	814686	100				5,000

Consolidated Lists of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
3-((Ethylamino)methoxyphosphinothioyl)oxy)-2-butenic acid, 1-methylethyl ester	ETHYLAMINOX E OXYPHOSPHINOTHIOYLOXYBUTENOIC ACID	31218834			X		
3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropane carboxylic acid, (3-phenoxy-phenyl)methyl ester	DICHLOROETHENYLDIMETHYLCYCLOPROPANECARBOXYLI	52645531			X		
3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropanecarboxylic acid, cyano(4-fluoro-3-phenoxyphenyl)methyl ester	DICHLOROETHENYLDIMETHYLCYCLOPROPANECARBOXYLIC A	68359375			X		
3-(2,4-Dichloro-5-(1-methylethoxy)phenyl)-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3H)-one	DICHLOROMETHYLETHOXYPHENYLDIMETHYLETH	19666309			X		
3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-Dimethylcyclopropanecarboxylic acid cyano(3-phenoxyphenyl)methyl ester	CHLOROTRIFLUOROPROPENYLDIMETHYLCYCLOPRO	68085858			X		
3-(3,5-Dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione	DICHLOROPHENYLETHENYLMETHYLOXAZOLIDINEDIO	50471448			X		
3,3-Dichloro-1,1,1,2,2-pentafluoropropane	DICHLOROPENTAFLUOROPROPANE (HCFC-225CA)	422560			313		
3,3'-Dichlorobenzidine	DICHLOROBENZIDINE	91941			313	U073	
3,3'-Dichlorobenzidine dihydrochloride	DICHLOROBENZIDINEDIHYDROCHLORIDE	612839			313		
3,3'-Dichlorobenzidine sulfate	DICHLOROBENZIDINESULFATE	64969342			313		
3,3'-Dimethoxybenzidine	DIMETHOXYBENZID	119904		100	313	U091	
3,3'-Dimethoxybenzidine-4,4'-diisocyanate	DIMETHOXYBENZIDINEDIISOCYANATE	91930			313#		
3,3'-Dimethoxybenzidine dihydrochloride	DIMETHOXYBENZIDINEDIHYDROCHLORIDE	20325400			313		
3,3'-Dimethoxybenzidine hydrochloride	DIMETHOXYBENZIDINEHYDROCHLORIDE	111984099			313		
3,3'-Dimethyl-4,4'-diphenylene diisocyanate	DIMETHYLDIPHENYLENEDIISOCYANATE	91974			313#		
3,3'-Dimethylbenzidine	DIMETHYLBENZIDI	119937		10	313	U095	
3,3'-Dimethylbenzidine dihydrochloride	DIMETHYLBENZIDINEDIHYDROCHLORIDE	612828			313		
3,3'-Dimethylbenzidine dihydrofluoride	DIMETHYLBENZIDINEDIHYDROFLUORIDE	41766750			313		
3,3'-Dimethyldiphenylmethane-4,4'-diisocyanate	DIMETHYLDIPHENYLMETHANEDIISOCYANATE	139253			313#		
3,4,5-Trichlorophenol	TRICHLOROPHENOL-F	609198		10			
3,4-Dinitrotoluene	DINITROTOLUENED	610399		10			
3,5-Dibromo-4-hydroxybenzonitrile	DIBROMOHYDROXYBENZONITRILE	1689845			X		
3,6-Dichloro-2-methoxybenzoic acid	DICHLOROMETHOXYBENZOICACID	1918009		1,000	X		
3,6-Dichloro-2-methoxybenzoic acid, sodium salt	DICHLOROMETHOXYBENZOICACIDSODIUM SALT	1982690			X		
3-Chloro-1,1,1-trifluoropropane	CHLOROTRIFLUOROPROPANE (HCFC-253FB)	460355			313		
3-Chloro-2-methyl-1-propene	CHLOROMETHYL-1-PROPENE	563473			313		
3-Chloropropionitrile	CHLOROPROPIONITRILE	542767	1,000	1,000	313	P027	
3-Iodo-2-propynyl butylcarbamate	IODOPROPYNYL BUTYLCARBAMATE	55406536			313		
3-Methyl-1-butene	METHYLBUTENE3	563451					10,000
3-Methylcholanthrene	METHYLCHOLANTHRENE	56495		10		U157	
4-(Diethylamino)-3,5-dinitrobenzenesulfonamide	DIPROPYLAMINODINITROBENZENESULFONAMIDE	19044883			X		
4,4'-Diaminodiphenyl ether	DIAMINODIPHENYL	101804			313		
4,4'-Diisocyanatodiphenyl ether	DIISOCYANATODIPHENYLETHER	4128738			313#		
4,4'-Isopropylidenediphenol	ISOPROPYLDENED	80057			313		
4,4'-Methylenebis(2-chloroaniline)	METHYLENEBISCHLORO	101144		10	313	U158	
4,4'-Methylenebis(N,N-dimethyl)benzenamine	METHYLENEBISDIMETH	101611			313		
4,4'-Methylenedianiline	METHYLENEDIANI	101779		1*	313		
4,4'-Thiodianiline	THIODIANILINE	139651			313		
4,6-Dichloro-N-(2-chlorophenyl)-1,3,5-triazin-2-amine	DICHLOROCHLOROPHENYLTIAZIN-2-AMINE	101053			X		
4,6-Dinitro-o-cresol	DINITROCRESOL	534521	10/10,000	10	313	P047	
4,6-Dinitro-o-cresol and salts	DINITROOCRESOL AND SALTS	534521		10		P047	
4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	METHANOINDANOCTACHLORO-2,3,3A,4,7,7A	57749	1,000	1	X	U036	
4-Aminoazobenzene	AMINOAZOBENZENE	60093			313		

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRA CODE	CAA 112R
4-Aminobiphenyl	AMINOBIIPHENYL	92671		1*	313		
4-Aminopyridine	AMINOPYRIDINE	504245	500/10,000	1,000		P008	
4-Bromophenyl phenyl ether	BROMOPHENYL PHENYL ETHER	101553		100		U030	
4-Chloro-5-(methylamino)-2-[3-(trifluoromethyl)phenyl]-3(2H)-pyridazinone	CHLOROMETHYLAMINOTRIFLUOROMETHYLPHENYL-3(2H)	27314132			X		
4-Chloro-alpha-(1-methylethyl)benzeneacetic acid cyano(3-phenoxyphenyl)methyl ester	CHLOROMETHYLETHYLBENZENEACETICACIDCYANOPHE	51630581			X		
4-Chloro-o-toluidine, hydrochloride	CHLOROTOLUIDINE, HYDROCHLORIDE	3165933		100		U049	
4-Chlorophenyl phenyl ether	CHLOROPHENYLPHENYL ETHER	7005723		5,000			
4-Dimethylaminoazobenzene	DIMETHYLAMINOAZO	60117		10	313	U093	
4-Methyldiphenylmethane-3,4-diisocyanate	METHYLDIPHENYLMETHANEDIISOCYANATE	75790840			313#		
4-Nitrobiphenyl	NITROBIIPHENYL	92933		1*	313		
4-Nitrophenol	NITROPHENOL	100027		100	313	U170	
5-(2-Chloro-4-(trifluoromethyl)phenoxy)-2-nitro-2-ethoxy-1-methyl-2-oxoethyl ester	CHLOROTOMETHYLPHENOXYNITROETHOXYM	77501634			X		
5-(2-Chloro-4-(trifluoromethyl)phenoxy)-2-nitrobenzoic acid, sodium salt	CHLOROTROMETHYLPHENOXY-2-NITROBENZOIC ACID,	62476599			X		
5-(2-Chloro-4-(trifluoromethyl)phenoxy)-N-methylsulfonyl-2-nitrobenzamide	CHLOROTRITROMETHYLPHENOXYMETHYLSULFONYL-2-	72178020			X		
5-(Aminomethyl)-3-isoxazolol	AMINOMETHYLSISOXAZOLOL	2763964	500/10,000	1,000		P007	
5-(Phenylmethyl)-3-furanyl)methyl-2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate	PHENYLMETHYLFURANYLMETHYLDIMETHYLMETHYL	10453868			X		
5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-carboxamide	DIHYDROMETHYLPHENYLOXATHIINCARBOXAMIDE	5234684			X		
5-Bromo-6-methyl-3-(1-methylpropyl)-2,4-(1H,3H)-pyrimidinedione	BROMOMETHYLMETHYLPROPYLPYRIMIDINEDI	314409			X		
5-Chloro-3-(1,1-dimethylethyl)-6-methyl-2,4-(1H,3H)-pyrimidinedione	CHLORODIMETHYLETHYLMETHYLPYRIMIDIN	5902512			X		
5-Fluorouracil	FLUOROURACIL,5-	51218	500/10,000		X		
5-Methylchrysene	METHYLCHRYSENE	3697243			313+		
5-Nitro-o-anisidine	NITROANISIDINE	99592			313		
5-Nitro-o-toluidine	NITROTOLUIDINE	99558		100	313	U181	
6-Chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4-diamine	CHLOROETHYLMETHYLETHYL-1,3,5-TRIAZINE-2,4-DIAMI	1912249			X		
6-Methyl-1,3-dithiol[4,5-b]quinoxalin-2-one	METHYLDITHIOLOQUINOXALIN-2-ONE	2439012			X		
7,12-Dimethylbenz[a]anthracene	DIMETHYLBENZAANTHRACENE	57976		1	313+	U094	
7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid, dipotassium salt	OXABICYCLOHEPTANEDICARBOXYLICACIDDIPOTASSIU	2164070			X		
7H-Dibenz(c,g)carbazole	DIBENZOCARBAZOLECG	194592			313+		
Abamectin	ABAMECTIN AVERMECTIN B1	71751412			313		
Acenaphthene	ACENAPHTHENE	83329		100			
Acenaphthylene	ACENAPHTHYLENE	208968		5,000			
Acephate	ACEPHATE	30560191			313		
Acetaldehyde	ACETALDEHYDE	75070		1,000	313	U001	10,000
Acetaldehyde, trichloro-	ACETALDEHYDE, TRICHLORO-	75876		5,000		U034	
Acetamide	ACETAMIDE	60355		1*	313		
Acetic acid	ACETICACID	64197		5,000			
Acetic acid ethenyl ester	ACETICACIDETHENYLESTER	108054	1,000	5,000	X		15,000
Acetic acid, (2,4-dichlorophenoxy)-	ACETICACIDDICHLOROPHENOXY-	94757		100	X	U240	
Acetic anhydride	ACETICANHYDRIDE	108247		5,000			
Acetone	ACETONE	67641		5,000	313	U002	
Acetone cyanohydrin	ACETONE CYANOHYDRIN	75865	1,000	10	X	P069	
Acetone thiosemicarbazide	ACETONE THIOSEMICARBAZIDE	1752303	1,000/10,000				
Acetonitrile	ACETONITRILE	75058		5,000	313	U003	
Acetophenone	ACETOPHENONE	98862		5,000	313	U004	
Acetyl bromide	ACETYLBROMIDE	506967		5,000			

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Acetyl chloride	ACETYLCHLORIDE	75365		5,000		U006	
Acetylene	ACETYLENE	74862					10,000
Acetylphosphoramidothioic acid O,S-dimethyl ester	ACETYLPHOSPHORAMIDOTHIOICACIDDIMETHYL ESTER	30560191			X		
Acifluorfen, sodium salt	ACIFLUORFEN, SODIUM SALT	62476599			313		
Acrolein	ACROLEIN	107028	500	1	313	P003	5,000
Acrylamide	ACRYLAMIDE	79061	1,000/10,000	5,000	313	U007	
Acrylic acid	ACRYLICACID	79107		5,000	313	U008	
Acrylonitrile	ACRYLONITRILE	107131	10,000	100	313	U009	20,000
Acrylyl chloride	ACRYLYL CHLORIDE	814686	100				5,000
Adipic acid	ADIPIC ACID	124049		5,000			
Adiponitrile	ADIPONITRILE	111693	1,000				
Alachlor	ALACHLOR	15972608			313		
Aldicarb	ALDICARB	116063	100/10,000	1	313	P070	
Aldrin	ALDRIN	309002	500/10,000	1	313	P004	
Allyl alcohol	ALLYLALCOHOL	107186	1,000	100	313	P005	15,000
Allyl chloride	ALLYLCHLORIDE	107051		1,000	313		
Allylamine	ALLYLAMINE	107119	500		313		10,000
alpha-BHC	BHC	319846		10	X		
alpha-Hexachlorocyclohexane	HEXACHLOROCYCLOHEXANEALPHA	319846		10	313		
alpha-Naphthylamine	NAPHTHYLAMINEA	134327		100	313	U167	
alpha-Endosulfan	ENDOSULFAN	959988		1			
Aluminum (fume or dust)	ALUMINUM	7429905			313		
Aluminum oxide (fibrous forms)	ALUMINUMOXIDE	1344281			313		
Aluminum phosphide	ALUMINUMPHOSPHIDE	20859738	500	100	313	P006	
Aluminum sulfate	ALUMINUMSULFATE	10043013		5,000			
Ametryn	AMETRYN	834128			313		
Aminopterin	AMINOPTERIN	54626	500/10,000				
Amiton	AMITON	78535	500				
Amiton oxalate	AMITON OXAL	3734972	100/10,000				
Amitraz	AMITRAZ	33089611			313		
Amitrole	AMITROLE	61825		10	313	U011	
Ammonia	AMMONIA	7664417	500	100	313		
Ammonia (anhydrous)	AMMONIA	7664417	500	100	X		10,000
Ammonia (conc 20% or greater)	AMMONIAS	7664417	500	100	X		20,000
Ammonium acetate	AMMONIUMACETATE	631618		5,000			
Ammonium benzoate	AMMONIUMBENZOATE	1863634		5,000			
Ammonium bicarbonate	AMMONIUMBICARBONATE	1066337		5,000			
Ammonium bichromate	AMMONIUMBICHROMATE	7789095		10			
Ammonium bifluoride	AMMONIUMBIFLUORIDE	1341497		100			
Ammonium bisulfite	AMMONIUMBISULFITE	10192300		5,000			
Ammonium carbamate	AMMONIUMCARBAMATE	1111780		5,000			
Ammonium carbonate	AMMONIUMCARBONATE	506876		5,000			
Ammonium chloride	AMMONIUMCHLORIDE	12125029		5,000			
Ammonium chromate	AMMONIUMCHROMATE	7788989		10			
Ammonium citrate, dibasic	AMMONIUMCITRATE, DIBASIC	3012655		5,000			
Ammonium fluoroborate	AMMONIUMFLUOBORATE	13826830		5,000			

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Ammonium fluoride	AMMONIUMFLUORIDE	12125018		100			
Ammonium hydroxide	AMMONIUMHYDROXIDE	1336216		1,000			
Ammonium nitrate (solution)	AMMONIUMNITRATE	6484522			313		
Ammonium oxalate	AMMONIUMOXALATE	5972736		5,000			
Ammonium oxalate	AMMONIUMOXALATE	6009707		5,000			
Ammonium oxalate	AMMONIUMOXALATE	14258492		5,000			
Ammonium picrate	AMMONIUMPICRATE	131748		10		P009	
Ammonium silicofluoride	AMMONIUMSILICOFLUORIDE	16919190		1,000			
Ammonium sulfamate	AMMONIUMSULFAMATE	7773060		5,000			
Ammonium sulfate (solution)	AMMONIUMSULFATE	7783202			313		
Ammonium sulfide	AMMONIUMSULFIDE	12135761		100			
Ammonium sulfite	AMMONIUMSULFITE	10196040		5,000			
Ammonium tartrate	AMMONIUMTARTRATE	3164292		5,000			
Ammonium tartrate	AMMONIUMTARTRATE	14307438		5,000			
Ammonium thiocyanate	AMMONIUMTHIOCYANATE	1762954		5,000			
Ammonium vanadate	AMMONIUMVANADATE	7803556		1,000		P119	
Amphetamine	AMPHETAMINE	300629	1,000				
Amyl acetate	AMYLACETATE	628637		5,000			
Anilazine	ANILAZINE	101053			313		
Aniline	ANILINE	62533	1,000	5,000	313	U012	
Aniline, 2,4,6-trimethyl-	ANILINE, 2,4,6-TRIMETHYL-	88051	500				
Anthracene	ANTHRACENE	120127		5,000	313		
Antimony	ANTIMONY	7440360		5,000	313		
Antimony Compounds	ANTIMONYCOMPOUNDS	0		**	N010		
Antimony pentachloride	ANTIMONYPENTACHLORIDE	7647189		1,000			
Antimony pentafluoride	ANTIMONYPENTAFLUORIDE	7783702	500				
Antimony potassium tartrate	ANTIMONYPOTASSIUM TARTRATE	28300745		100			
Antimony tribromide	ANTIMONYTRIBROMIDE	7789619		1,000			
Antimony trichloride	ANTIMONYTRICHLORIDE	10025919		1,000			
Antimony trifluoride	ANTIMONYTRIFLUORIDE	7783564		1,000			
Antimony trioxide	ANTIMONYTRIOXIDE	1309644		1,000			
Antimycin A	ANTIMYCIN A	1397940	1,000/10,000				
Antu	ANTU	86884	500/10,000	100		P072	
Aroclor 1016	AROCLOR 1016	12674112		1			
Aroclor 1221	AROCLOR 1221	11104282		1			
Aroclor 1232	AROCLOR 1232	11141165		1			
Aroclor 1242	AROCLOR 1242	53469219		1			
Aroclor 1248	AROCLOR 1248	12672296		1			
Aroclor 1254	AROCLOR 1254	11097691		1			
Aroclor 1260	AROCLOR 1260	11096825		1			
Arsenic	ARSENIC	7440382		1	313		
Arsenic acid	ARSENIC AC	1327522		1			
Arsenic acid	ARSENIC ACID	7778394		1		P010	
Arsenic Compounds	ARSENIC COMPOUNDS	0		**	N020		
Arsenic disulfide	ARSENIC DISULFIDE	1303328		1			
Arsenic pentoxide	ARSENIC PENTOXIDE	1303282	100/10,000	1		P011	

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Arsenic trioxide	ARSENIC TRIOXIDE	1327533	100/10,000	1		P012	
Arsenic trisulfide	ARSENIC TRISULFIDE	1303339		1			
Arsenous oxide	ARSENOUS OXIDE	1327533	100/10,000	1		P012	
Arsenous trichloride	ARSENOUS TRICHLORIDE	7784341	500	1			15,000
Arsine	ARSINE	7784421	100				1,000
Asbestos (friable)	ASBESTOS	1332214		1	313		
Atrazine	ATRAZINE	1912249			313		
Auramine	AURAMINE	492808		100	X	U014	
Avermectin B1	AVERMECTIN B1	71751412			X		
Azaserine	AZASERINE	115026		1		U015	
Azinphos-ethyl	AZINPHOS-ETHYL	2642719	100/10,000				
Azinphos-methyl	AZINPHOS-METHYL	86500	10/10,000	1			
Aziridine	AZIRIDINE	151564	500	1	X	P054	10,000
Aziridine, 2-methyl	AZIRIDINE, 2-METHYL	75558	10,000	1	X	P067	10,000
Barium	BARIUM	7440393			313		
Barium Compounds	BARIUM COMPOUNDS	0			N040		
Barium cyanide	BARIUM CYANIDE	542621		10		P013	
Bendiocarb	BENDIOCARB	22781233			313		
Benzeneamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)-	BENZENEAMINEDINITRODIPROPYL-4-(TRIFLUOROMETHYL)-	1582098		1*	X		
Benfluralin	BENFLURALIN	1861401			313		
Benomyl	BENOMYL	17804352			313		
Benz(a)anthracene	BENZANTHRACENE	56553		10	313+	U018	
Benz(c)acridine	BENZACRIDINE	225514		100		U016	
Benzal chloride	BENZALCHLORIDE	98873	500	5,000	313	U017	
Benzamide	BENZAMIDE	55210			313		
Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)	BENZAMIDE,3,5-DICHLORO-N-(1,1-DIMETHYL-2-PROPYNYL	23950585		5,000	X	U192	
Benzenamine, 3-(trifluoromethyl)-	BENZENAMINE, 3-(TRIFLUOROMETHYL)-	98168	500				
Benzene	BENZENE	71432		10	313	U019	
Benzene, 1-(chloromethyl)-4-nitro-	BENZENECHLOROMETHYL-4-NITRO-	100141	500/10,000				
Benzene, 1,1'-(2,2,2-trichloroethylidene)bis [4-methoxy-	BENZENETRICHOROETHYLIDENE)BIS [4-METHOXY-	72435		1	X	U247	
Benzene, 1,3-diisocyanato-2-methyl-	BENZENEDIISOCYANATOMETHYL B	91087	100	100	X		10,000
Benzene, 1,3-diisocyanatomethyl-	BENZENEDIISOCYANATOMETHYL C	26471625		100	X	U223	10,000
Benzene, 2,4-dichloro-1-(4-nitrophenoxy)-	BENZENEDICHLORONITROPHENOXY)-	1836755			X		
Benzene, 2,4-diisocyanato-1-methyl-	BENZENEDIISOCYANATOMETHYL A	584849	500	100	X		10,000
Benzene, m-dimethyl-	BENZENEDIMETHYL-M	108383		1,000	X	U239	
Benzene, o-dimethyl-	BENZENEDIMETHYL-O	95476		1,000	X	U239	
Benzene, p-dimethyl-	BENZENEDIMETHYL-P	106423		1,000	X	U239	
Benzenoacetic acid, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-hydroxy-. ethyl ester	BENZENOACETICACIDCHLORO-.ALPHA.-(4-CHLOROPHENYL)-.ALPH	510156		10	X	U038	
Benzenamine, N-hydroxy-N-nitroso, ammonium salt	BENZENAMINEHYDROXYNITROSO, AMMONIUM SALT	135206			X		
Benzenearsonic acid	BENZENEARSONIC ACID	98055	10/10,000				
Benzenoethanamine, alpha, alpha-dimethyl-	BENZENOETHANAMINE, ALPAH,ALPHA-DIMETHYL- +	122098		5,000		P046	
Benzenemethanol, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-(trichloromethyl)-	BENZENEMETHANOLCHLORO-.ALPHA.-(4-CHLOROPHENYL)-.ALPHA	115322		10	X		
Benzenesulfonyl chloride	BENZENESULFONYL CHLORIDE	98099		100		U020	
Benzenethiol	BENZENETHIOL	108985	500	100		P014	
Benzidine	BENZIDINE	92875		1	313	U021	
Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-	BENZIMIDAZOLE,4,5-DICHLORO-2-(TRIFLUOROMETHYL)-	3615212	500/10,000				

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Benzo(a)phenanthrene	BENZO(A)PHENANTHRENE	218019		100	313+	U050	
Benzo(j)fluoranthene	BENZOFLUORANTHENEJ	205823			313+		
Benzo(k)fluoranthene	BENZOFLUORANTHENEK	207089		5,000	313+		
Benzo(rst)pentaphene	BENZO(RST)PENTAPHENE	189559		10	313+	U064	
Benzo(a)pyrene	BENZOPYRENE	50328		1	313+	U022	
Benzo(b)fluoranthene	BENZOFLUORANTHENE	205992		1	313+		
Benzo(g,h,i)perylene	BENZOPERYLENE	191242		5,000			
Benzoic acid	BENZOICACID	65850		5,000			
Benzoic acid, 3-amino-2,5-dichloro-	BENZOICACIDAMINODICHLORO-	133904		1*	X		
Benzoic trichloride	BENZOICTRICHORIDE	98077	100	10	313	U023	
Benzonitrile	BENZONITRILE	100470		5,000			
Benzotrichloride	BENZOTRICHORIDE	98077	100	10	X	U023	
Benzoyl chloride	BENZOYLCLORIDE	98884		1,000	313		
Benzoyl peroxide	BENZOYLPEROXIDE	94360			313		
Benzyl chloride	BENZYLCHLORIDE	100447	500	100	313	P028	
Benzyl cyanide	BENZYL CYANIDE	140294	500				
Beryllium	BERYLLIUM	7440417		10	313	P015	
Beryllium chloride	BERYLLIUM CHLORIDE	7787475		1			
Beryllium Compounds	BERYLLIUM COMPOUNDS	0		**	N050		
Beryllium fluoride	BERYLLIUM FLUORIDE	7787497		1			
Beryllium nitrate	BERYLLIUM NITRATE	7787555		1			
Beryllium nitrate	BERYLLIUM NITRATE	13597994		1			
Beta-BHC	BHC	319857		1			
Beta-Naphthylamine	NAPHTHYLAMINEB	91598		10	313	U168	
Beta-Propiolactone	PROPIOLACTONE	57578	500	1*	313		
Beta-Endosulfan	ENDOSULFAN	33213659		1			
Bicyclo[2.2.1]heptane-2-carbonitrile, 5-chloro-6-(((methylamino)carbonyl)oxy)imino)-(1-alpha,2-beta,4-alpha,5-alpha,6E))-	BICYCLO[2.2.1]HEPTANE-2-CARBONITRILE, 5-CHLORO-6-	15271417	500/10,000				
Bifenthrin	BIFENTHRIN	82657043			313		
Biphenyl	BIPHENYL	92524		1*	313		
Bis(2-chloro-1-methylethyl) ether	BISCHLOROMETHYLETHYL	108601		1,000	313	U027	
Bis(2-chloroethoxy) methane	BISCHLOROETHOXYMETHANE	111911		1,000	313	U024	
Bis(2-chloroethyl) ether	BISCHLOROETHYLEETHER	111444	10,000	10	313	U025	
Bis(2-ethylhexyl) adipate	BISETHYLHEXYL	103231			313		
Bis(2-ethylhexyl) phthalate	BISETHYLHEXYLPHTHALATE	117817		100	X	U028	
Bis(chloromethyl) ether	BISCHLOROMETHYLEETHER	542881	100	10	313	P016	1,000
Bis(chloromethyl) ketone	BISCHLOROMETHYLKETONE	534076	10/10,000				
Bis(tributyltin) oxide	BISTRIBUTYL(TIN) OXIDE	56359			313		
Bitoscanate	BITOSCANATE	4044659	500/10,000				
Borane, trichloro-	BORANETRICHLORO-	10294345	500		X		5,000
Borane, trifluoro-	BORANETRIFLUORO-	7637072	500		X		5,000
Boron trichloride	BORON TRICHLORIDE	10294345	500		313		5,000
Boron trifluoride	BORON TRIFLUORIDE	7637072	500		313		5,000
Boron trifluoride compound with methyl ether (1:1)	BORON TRIFLUORIDE COMPOUND WITH METHYL ETHER (1:1)	353424	1,000				15,000
Boron, trifluoro(oxybis(methane))-, (T-4)-	BORONTRIFLUORO(OXYBIS(METHANE))-, (T-4)-	353424	1,000				15,000
Bromacil	BROMACIL	314409			313		

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Bromacil, lithium salt	BROMACIL, LITHIUM SALT	53404196			313		
Bromadiolone	BROMADIOLONE	28772567	100/10,000				
Bromine	BROMINE	7726956	500		313		10,000
Bromoacetone	BROMOACETONE	598312		1,000		P017	
Bromochlorodifluoromethane	BROMOCHLORODIFLUOROMETHANE	353593			313		
Bromoform	BROMOFORM	75252		100	313	U225	
Bromomethane	BROMOMETHANE	74839	1,000	1,000	313	U029	
Bromotrifluoroethylene	BROMOTRIFLUORETHYLEN	598732					10,000
Bromotrifluoromethane	BROMOTRIFLUOROMETHANE	75638			313		
Bromoxynil	BROMOXYNIL	1689845			313		
Bromoxynil octanoate	BROMOXYNIL OCTANOATE	1689992			313		
Bronopol	BRONOPOL	52517			X		
Brucine	BRUCINE	357573		100	313	P018	
Butane	BUTANE	106978					10,000
Butane, 2-methyl-	BUTANEMETHYL-	78784					10,000
Butene	BUTENE	25167673					10,000
Butyl acetate	BUTYLACETATE	123864		5,000			
Butyl acrylate	BUTYLACRYLATE	141322			313		
Butyl benzyl phthalate	BUTYLBENZYLPHTHALA	85687		100			
Butylamine	BUTYLAMINE	109739		1,000			
Butylethylcarbamothioic acid S-propyl ester	BUTYLETHYLCARBAMOTHIOICACIDPROPYLESTER	1114712			X		
Butyraldehyde	BUTYRALDEHYDE	123728			313		
Butyric acid	BUTYRIC ACID	107926		5,000			
C.I. Acid Green 3	CIACIDGREEN3	4680788			313		
C.I. Acid Red 114	C.I. ACID RED 114	6459945			313		
C.I. Basic Green 4	CIBASICGREEN4	569642			313		
C.I. Basic Red 1	CIBASICRED1	989388			313		
C.I. Direct Black 38	CIDIRECTBLAC3	1937377			313		
C.I. Direct Blue 218	C.I. DIRECT BLU	28407376			313		
C.I. Direct Blue 6	CIDIRECTBLUE	2602462			313		
C.I. Direct Brown 95	CIDIRECTBROW.	16071866			313		
C.I. Disperse Yellow 3	CIDISPERSEYELLOW	2832408			313		
C.I. Food Red 15	CIFOODRED15	81889			313		
C.I. Food Red 5	CIFOODRED05	3761533			313		
C.I. Solvent Orange 7	CISOLVENTORANGE	3118976			313		
C.I. Solvent Yellow 14	CISOLVENTYELLOWB	842079			313		
C.I. Solvent Yellow 3	CISOLVENTYELLOWA	97563			313		
C.I. Solvent Yellow 34	CISOLVENTYELLOWC	492808		100	313	U014	
C.I. Vat Yellow 4	CIVATYELLOW4	128665			313		
Cacodylic acid	CACODYLIC ACID	75605		1		U136	
Cadmium	CADMIUM	7440439		10	313		
Cadmium acetate	CADMIUM ACETATE	543908		10			
Cadmium bromide	CADMIUM BROMIDE	7789426		10			
Cadmium chloride	CADMIUM CHLORIDE	10108642		10			
Cadmium Compounds	CADMIUM COMPOUNDS	0		**	N078		
Cadmium oxide	CADMIUM OXIDE	1306190	100/10,000				

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Cadmium stearate	CADMIUM STEARATE	2223930	1,000/10,000				
Calcium arsenate	CALCIUM ARSENATE	7778441	500/10,000	1			
Calcium arsenite	CALCIUM ARSENITE	52740166		1			
Calcium carbide	CALCIUM CARBIDE	75207		10			
Calcium chromate	CALCIUM CHROMATE	13765190		10		U032	
Calcium cyanamide	CALCIUM CYANAMIDE	156627		1*	313		
Calcium cyanide	CALCIUM CYANIDE	592018		10		P021	
Calcium dodecylbenzenesulfonate	CALCIUM DODECYLBENZENESULFONATE	26264062		1,000			
Calcium hypochlorite	CALCIUM HYPOCHLORITE	7778543		10			
Camphchlor	CAMPHECHLOR	8001352	500/10,000	1	X	P123	
Camphene, octachloro-	CAMPHENE, OCTACHLORO-	8001352	500/10,000	1	X	P123	
Cantharidin	CANTHARIDIN	56257	100/10,000				
Caprolactam	CAPROLACTAM	105602		1*			
Captan	CAPTAN	133062		10	313		
Carbachol chloride	CARBACHOL CHLORIDE	51832	500/10,000				
Carbamic acid, diethylthio-, S-(p-chlorobenzyl)	CARBAMIC ACIDDIETHYLTHIOCHLOROBENZYL)	28249776			X		
Carbamic acid, ethyl ester	CARBAMIC ACIDETHYL ESTER	51796		100	X	U238	
Carbamic acid, methyl-, O-(((2,4-dimethyl-1,3-dithiolan-2-yl)methylene)amino)-	CARBAMIC ACIDMETHYL-, O-(((2,4-DIMETHYL-1, 3-DIT	26419738	100/10,000				
Carbamodithioic acid, 1,2-ethanedithylbis-, manganese complex	CARBAMODITHIOICACIDETHANEDITHYLBIS-, MANGANESE COMPLEX	12427382			X		
Carbamodithioic acid, 1,2-ethanedithylbis-, zinc complex	CARBAMODITHIOICACIDETHANEDITHYLBIS-, ZINC COMPLEX	12122677			X		
Carbamothioic acid, bis(1-methylethyl)-S-(2,3-dichloro-2-propenyl)ester	CARBAMOTHIOIC ACID, BIS(1-METHYLETHYL)-S-(2,3-DICHLORO-	2303164		100	X	U062	
Carbaryl	CARBARYL	63252		100	313		
Carbofuran	CARBOFURAN	1563662	10/10,000	10	313		
Carbon disulfide	CARBONDISULFIDE	75150	10,000	100	313	P022	20,000
Carbon oxide sulfide (COS)	CARBONOXIDESULFIDE	463581		1*	X		10,000
Carbon tetrachloride	CARBONTETRACHLORIDE	56235		10	313	U211	
Carbonic dichloride	CARBONICDICHLORIDE	75445	10	10	X	P095	500
Carbonic difluoride	CARBONIC DIFLUORIDE	353504		1,000		U033	
Carbonochloridic acid, 1-methylethyl ester	CARBONOCHLORIDICACIDMETHYLETHYL ESTER	108236	1,000				15,000
Carbonochloridic acid, methylester	CARBONOCHLORIDICACIDMETHYLESTER	79221	500	1,000	X	U156	5,000
Carbonochloridic acid, propylester	CARBONOCHLORIDICACIDPROPYLESTER	109615	500				15,000
Carbonyl sulfide	CARBONYLSULFIDE	463581		1*	313		10,000
Carbophenothion	CARBOPHENOTHION	786196	500				
Carboxin	CARBOXIN	5234684			313		
Catechol	CATECHOL	120809		1*	313		
CFC-11	CFC-11	75694		5,000	X	U121	
CFC-114	CFC-114	76142			X		
CFC-115	CFC-115	76153			X		
CFC-12	CFC-112	75718		5,000	X	U075	
CFC-13	CFC-13	75729			X		
Chinomethionat	CHINOMETHIONAT	2439012			313		
Chloramben	CHLORAMBEN	133904		1*	313		
Chlorambacil	CHLORAMBT	305033		10		U035	
Chlordane	CHLORDANT	57749	1,000	1	313	U036	
Chlordane (Technical Mixture and Metabolites)	CHLORDANE (TECHNICAL MIXTURE AND METABOLITES)	0		**			
Chlorendic acid	CHLORENDIC ACID	115286			313		

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Chlorfenvinfos	CHLORFENVINF S	470906	500				
Chlorimuron ethyl	CHLORIMURON 1 .L	90982324			313		
Chlorinated Benzenes	CHLORINATED BENZENES	0		**			
Chlorinated Ethanes	CHLORINATED ETHANES	0		**			
Chlorinated Naphthalene	CHLORINATED NAPHTHALENE	0		**			
Chlorinated Phenols	CHLORINATED PHENOLS	0		**	N084		
Chlorine	CHLORINE	7782505	100	10	313		2,500
Chlorine dioxide	CHLORINEDIOXIDE	10049044			313		1,000
Chlorine monoxide	CHLORINEMONOXIDE	7791211					10,000
Chlorine oxide	CHLORINEOXIDE	7791211					10,000
Chlorine oxide (ClO2)	CHLORINEOXIDE (ClO2)	10049044			X		1,000
Chlormephos	CHLORMEPHOS	24934916	500				
Chlormequat chloride	CHLORMEQUAT CHLORIDE	999815	100/10,000				
Chlornaphazine	CHLORNAPHAZINE	494031		100		U026	
Chloroacetaldehyde	CHLOROACETALDEHYDE	107200		1,000		P023	
Chloroacetic acid	CHLOROACETICACID	79118	100/10,000	1*	313		
Chloroalkyl Ethers	CHLOROALKYL ETHERS	0		**			
Chlorobenzene	CHLOROBENZENE	108907		100	313	U037	
Chlorobenzilate	CHLOROBENZILATE	510156		10	313	U038	
Chlorodibromomethane	CHLORODIBROMOMETHANE	124481		100			
Chlorodifluoromethane	CHLORODIFLUOROMETHANE	75456			313		
Chloroethane	CHLOROETHANE	75003		100	313		10,000
Chloroethanol	CHLOROETHANOL	107073	500				
Chloroethyl chloroformate	CHLOROETHYLCHLOROFORMATE	627112	1,000				
Chloroform	CHLOROPFORM	67663	10,000	10	313	U044	20,000
Chloromethane	CHLOROMETHANE	74873		100	313	U045	10,000
Chloromethyl ether	CHLOROMETHYL ETHER	542881	100	10	X	P016	1,000
Chloromethyl methyl ether	CHLOROMETHYL	107302	100	10	313	U046	5,000
Chlorophacinone	CHLOROPHACINONE	3691358	100/10,000				
Chlorophenols	CHLOROPHENOLS	0		**	N084		
Chloropicrin	CHLOROPICRIN	76062			313		
Chloroprene	CHLOROPRENE	126998		1*	313		
Chlorosulfonic acid	CHLOROSULFONIC ACID	7790945		1,000			
Chlorotetrafluoroethane	CHLOROTETRAFLUOROETHANE	63938103			313		
Chlorothalonil	CHLOROTHALONIL	1897456			313		
Chlorotrifluoromethane	CHLOROTRIFLUOROMETHANE	75729			313		
Chloroxuron	CHLOROXRON	1982474	500/10,000				
Chlorpyrifos	CHLORPYRIFOS	2921882		1			
Chlorpyrifos methyl	CHLORPYRIFOSMETHYL	5598130			313		
Chlorsulfuron	CHLORSULFURON	64902723			313		
Chlorthiophos	CHLORTHIOPHOS	21923239	500				
Chromic acetate	CHROMIC ACETATE	1066304		1,000			
Chromic acid	CHROMIC ACID	7738945		10			
Chromic acid	CHROMIC ACID	11115745		10			
Chromic chloride	CHROMIC CHLORIDE	10025737	1/10,000				
Chromic sulfate	CHROMIC SULFATE	10101538		1,000			

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Chromium	CHROMIUM	7440473		5,000	313		
Chromium Compounds	CHROMIUM AND COMPOUNDS	0		**	N090		
Chromous chloride	CHROMOUS CHLORIDE	10049055		1,000			
Chrysene	CHRYSENE	218019		100	X	U050	
Cobalt	COBALT	7440484			313		
Cobalt carbonyl	COBALT CARBONYL	10210681	10/10,000				
Cobalt Compounds	COBALT COMPOUNDS	0		1*	N096		
Cobalt, ((2,2'-(1,2-ethanediy)bis(nitrilomethyldiyn))bis(6-fluorophenylato))(2-)-N,N',O,O')-	COBALT, ((2,2'-(1,2-ETHANEDIYLBIS (NITRILOMETHYLID	62207765	100/10,000				
Cobaltous bromide	COBALTOUS BROMIDE	7789437		1,000			
Cobaltous formate	COBALTOUS FORMATE	544183		1,000			
Cobaltous sulfamate	COBALTOUS SULFAMATE	14017415		1,000			
Coke Oven Emissions	COKE OVEN EMISSIONS	0		1			
Colchicine	COLCHICINL	64868	10/10,000				
Copper	COPPER	7440508		5,000	313		
Copper Compounds	COPPER COMPOUNDS	0		**	N100		
Copper cyanide	COPPER CY.	544923		10		P029	
Coumaphos	COUMAPHOS	56724	100/10,000	10			
Coumatetralyl	COUMATETRALYL	5836293	500/10,000				
Creosote	CREOSOTE	8001589		1	313	U051	
Cresol (mixed isomers)	CRESOL MIXED ISOMER	1319773		1,000	313	U052	
Crimidine	CRIMIDINE	535897	100/10,000				
Crotonaldehyde	CROTONALDEHYDE	4170303	1,000	100	313	U053	20,000
Crotonaldehyde, (E)-	CROTONALDEHYDE, (E)-	123739	1,000	100		U053	20,000
Cumene	CUMENE	98828		5,000	313	U055	
Cumene hydroperoxide	CUMENEHYDROPEROXIDE	80159		10	313	U096	
Cupferron	CUPFERRON	135206			313		
Cupric acetate	CUPRIC ACETATE	142712		100			
Cupric acetoarsenite	CUPRIC ACETOARSENITE	12002038	500/10,000	1			
Cupric chloride	CUPRIC CHLORIDE	7447394		10			
Cupric nitrate	CUPRIC NITRATE	3251238		100			
Cupric oxalate	CUPRIC OXALATE	5893663		100			
Cupric sulfate	CUPRIC SULFATE	7758987		10			
Cupric sulfate, ammoniated	CUPRIC SULFATE, AMMONIATED	10380297		100			
Cupric tartrate	CUPRIC TARTRATE	815827		100			
Cyanazine	CYANAZINE	21725462			313		
Cyanide Compounds	CYANIDE COMPOUNDS	0		**	N106		
Cyanides (soluble salts and complexes)	CYANIDES (SOLUBLE SALTS AND COMPLEXES) NOT OTHER WI	57125		10		P030	
Cyanogen	CYANOGEN	460195		100		P031	10,000
Cyanogen bromide	CYANOGEN BROMIDE	506683	500/10,000	1,000		U246	
Cyanogen chloride	CYANOGEN CHLORIDE	506774		10		P033	10,000
Cyanogen chloride ((CN)Cl)	CYANOGENCHLORIDE ((CN)CL)	506774		10		P033	10,000
Cyanogen iodide	CYANOGEN IODIDE	506785	1,000/10,000				
Cyanophos	CYANOPHOS	2636262	1,000				
Cyanuric fluoride	CYANURIC FLUORIDE	675149	100				
Cycloate	CYCLOATE	1134232			313		
Cyclohexanamine	CYCLOHEXANAMINE	108918	10,000				15,000

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Cyclohexane	CYCLOHEXANE	110827		1,000	313	U056	
Cyclohexane, 1,2,3,4,5,6-hexachloro-(1.alpha.,2.alpha.,3.beta.,4.alpha.,5.alpha.,6.beta.)-	CYCLOHEXANEHEXACHLORO-(1.ALPHA.,2.ALPHA.,3.BE	58899	1,000/10,000	1	X	U129	
Cyclohexanol	CYCLOHEXANOL	108930			313		
Cyclohexanone	CYCLOHEXANONE	108941		5,000		U057	
Cycloheximide	CYCLOHEXIMIDE	66819	100/10,000				
Cyclohexylamine	CYCLOHEXYLAMINE	108918	10,000				15,000
Cyclophosphamide	CYCLOPHOSPHAMIDE	50180		10		U058	
Cyclopropane	CYCLOPROPANE	75194					10,000
Cyfluthrin	CYFLUTHRIN	68359375			313		
Cyhalothrin	CYHALOTHRIN	68085858			313		
D-Glucose, 2-deoxy-2-[(methylnitrosoamino)-carbo	GLUCOSE, 2-DEOXY-2-[(METHYLNITROSOAMINO)-CARBO	18883664		1		U206	
d-trans-Allethrin	ALLETHRIN	28057489			313		
d-trans-Chrysanthemic acid of d-allethrine	CHRYSANTHEMICACID OF D-ALLETHRONE	28057489			X		
Daunomycin	DAUNOMYCIN	20830813		10		U059	
Dazomet	DAZOMET	533744			313		
Dazomet, sodium salt	DAZOMETSODIUM SALT	53404607			313		
DBCP	DBCP	96128		1	X	U066	
DDD	DDD	72548		1		U060	
DDE	DDE	72559		1			
DDE	DDE	3547044		1*			
DDT	DDT	50293		1		U061	
DDT and Metabolites	DDT AND METABOLITES	0		**			
Decaborane(14)	DECABORANE(14)	17702419	500/10,000				
Decabromodiphenyl oxide	DECABROMODIPHENYLOX	1163195			313		
DEF	DEF	78488			X		
DEHP	DEHP	117817		100	X	U028	
delta-BHC	BHC	319868		1			
Demeton	DEMETON	8065483	500				
Demeton-S-methyl	DEMETON-S-METHYL	919868	500				
Desmedipham	DESMEDIPHAN	13684565			313		
Di(2-ethylhexyl) phthalate	DIETHYLHEXYL	117817		100	313	U028	
Di-n-octyl phthalate	DIOCTYLPHTHALATE	117840		5,000		U107	
Di-n-propylnitrosamine	DIPROPYLNITROSAMINE	621647		10	X	U111	
Dialifor	DIALIFOR	10311849	100/10,000				
Diallate	DIALLATE	2303164		100	313	U062	
Diaminotoluene	DIAMINOTOLUENE	496720		10		U221	
Diaminotoluene	DIAMINOTOLUENE	823405		10		U221	
Diaminotoluene (mixed isomers)	DIAMINOTOLUENEMIXE	25376458		10	313	U221	
Diazinon	DIAZINON	333415		1	313		
Diazomethane	DIAZOMETHANE	334883		1*	313		
Dibenz(a,h)acridine	DIBENZACRIDINEAH	226368			313+		
Dibenz(a,h)acridine	DIBENZACRIDINEAJ	224420			313+		
Dibenz(a,h)anthracene	DIBENZANTHRACENE	53703		1	313+	U063	
Dibenz(a,h)pyrene	DIBENZPYRENE	189559		10	X	U064	
Dibenzo(a,e)fluoranthene	DIBENZOFUORANTHENEAE	5385751			313+		
Dibenzo(a,e)pyrene	DIBENZOPYRENEAE	192654			313+		

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Dibenzo(a,h)pyrene	DIBENZOPYRENEAH	189640			313+		
Dibenzo(a,j)pyrene	DIBENZOPYRENEAL	191300			313+		
Dibenzofuran	DIBENZOFURAN	132649		1*	313		
Diborane	DIBORANE	19287457	100				2,500
Diborane(6)	DIBORANE(6)	19287457	100				2,500
Dibromotetrafluoroethane	DIBROMOTETRAFLUOROETHANE	124732			313		
Dibutyl phthalate	DIBUTYLPHTHALATE	84742		10	313	U069	
Dicamba	DICAMBA	1918009		1,000	313		
Dichlobenil	DICHLOBENIL	1194656		100			
Dichlone	DICHLONE	117806		1			
Dichloran	DICHLORAN	99309			313		
Dichloro-1,1,2-trifluoroethane	DICHLOROTRIFLUOROETHANE	90454185			313		
Dichlorobenzene	DICHLOROBENZENE	25321226		100	X		
Dichlorobenzene (mixed isomers)	DICHLOROBENZENEMIX	25321226		100	313		
Dichlorobenzidine	DICHLOROBENZIDINE	0		**			
Dichlorobromomethane	DICHLOROBROMOMETHANE	75274		5,000	313		
Dichlorodifluoromethane	DICHLORODIFLUOROMETHANE	75718		5,000	313	U075	
Dichloroethyl ether	DICHLOROETHYLETHER	111444	10,000	10	X	U025	
Dichlorofluoromethane	DICHLOROFLUOROMETHANE	75434			313		
Dichloroisopropyl ether	DICHLOROISOPROPYL ETHER	108601		1,000	X	U027	
Dichloromethane	DICHLOROMETHANE	75092		1,000	313	U080	
Dichloromethyl ether	DICHLOROMETHYL ETHER	542881	100	10	X	P016	1,000
Dichloromethylphenylsilane	DICHLOROMETHYLPHENYLSILANE	149746	1,000				
Dichloropentafluoropropane	DICHLOROPENTAFLUOROPROPANE	127564925			313		
Dichlorophene	DICHLOROPHENE	97234			313		
Dichlorophenylarsine	DICHLOROPHENYLARSINE	696286	500	1		P036	
Dichloropropane	DICHLOROPROPANE	26638197		1,000			
Dichloropropane - Dichloropropene (mixture)	DICHLOROPROPANE - DICHLOROPROPENE (MIXTURE)	8003198		100			
Dichloropropene	DICHLOROPROPENE	26952238		100			
Dichlorosilane	DICHLOROSILANE	4109960					10,000
Dichlorotetrafluoroethane	DICHLOROTETRAFLUOROETHANE	76142			313		
Dichlorotrifluoroethane	DICHLOROTRIFLUOROETHANE	34077877			313		
Dichlorvos	DICHLORVOS	62737	1,000	10	313		
Diclofop methyl	DICLOFOPMETHYL	51338273			313		
Dicofol	DICOFOL	115322		10	313		
Dicrotophos	DICROTOPHOS	141662	100				
Dicyclopentadiene	DICYCLOPENTADIENE	77736			313		
Dieldrin	DELDRLIN	60571		1		P037	
Diepoxybutane	DIEPOXYBUTANE	1464535	500	10	313	U085	
Diethanolamine	DIETHANOLAMINE	111422		1*	313		
Diethyl ethyl	DIETHYLETHYL	38727558			313		
Diethyl p-nitrophenyl phosphate	DIETHYLPN ENYL PHOSPHATE	311455		100		P041	
Diethyl chlorophosphate	DIETHYLCHL PHOSPHATE	814493	500				
Diethyl phthalate	DIETHYLPH . ATE	84662		1,000	313	U088	
Diethyl sulfate	DIETHYLSULFATE	64675		1*	313		
Diethylamine	DIETHYLAMINE	109897		1,000			

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Diethylarsine	DIETHYLARS	692422		1		P038	
Diethylcarbamazine citrate	DIETHYLCAR ZINE CITRATE	1642542	100/10,000				
Diethylidithiocyanatobenzene	DIETHYLDIISOC ANATOBENZENE	134190377			313#		
Diethylstilbestrol	DIETHYLSTILBESTROL	56531		1		U089	
Diflubenuron	DIFLUBENZURON	35367385			313		
Difluoroethane	DIFLUOROETHANE	75376					10,000
Digitoxin	DIGITOXIN	71636	100/10,000				
Diglycidyl ether	DIGLYCIDYL ETHER	2238075	1,000				
Diglycidyl resorcinol ether	DIGLYCIDYLRESORCINOL ETHER	101906			313		
Digoxin	DIGOXIN	20830755	10/10,000				
Dihydrosafrole	DIHYDROSAFROLE	94586		10	313	U090	
Diisocyanates (includes only 20 chemicals)	DIISOCYANATES	0			NI 20		
Diisopropylfluorophosphate	DIISOPROPYLFLUOROPHOSPHATE	55914	100	100		P043	
Dimefox	DIMEFOX	115264	500				
Dimethipin	DIMETHIPIN	55290647			313		
Dimethoate	DIMETHOATE	60515	500/10,000	10	313	P044	
Dimethyl-p-phenylenediamine	DIMETHYLPHENYLENEDIAMINE	99989	10/10,000				
Dimethyl chlorothiophosphate	DIMETHYLCHLOROTHIOPHOSPHATE	2524030	500		313		
Dimethyl phosphorochloridothioate	DIMETHYLPHOSPHOROCHLORIDOTHIOATE	2524030	500		X		
Dimethyl phthalate	DIMETHYLPHALATE	131113		5,000	313	U102	
Dimethyl sulfate	DIMETHYLSULFATE	77781	500	100	313	U103	
Dimethylamine	DIMETHYLAMINE	124403		1,000	313	U092	10,000
Dimethylamine dicamba	DIMETHYLAMINEDICAMBA	2300665			313		
Dimethylaminoazobenzene	DIMETHYLAMINOAZOBENZENE	60117		10	X	U093	
Dimethylcarbamyl chloride	DIMETHYLCARBAMYL	79447		1	313	U097	
Dimethyldichlorosilane	DIMETHYLDICHLOROSILANE	75785	500		313		5,000
Dimethylformamide	DIMETHYLFORMAMIDE	68122		1*	X		
Dimethylhydrazine	DIMETHYLHYDRAZINE	57147	1,000	10	X	U098	15,000
Dimetilan	DIMETILAN	644644	500/10,000				
Dinitrobenzene (mixed isomers)	DINITROBENZENE (MIXED)	25154545		100			
Dinitrobutyl phenol	DINITROBUTYL PHENOL	88857	100/10,000	1,000	313	P020	
Dinitrocresol	DINITROCRESOL	534521	10/10,000	10	X	P047	
Dinitrophenol	DINITROPHENOLA	25550587		10			
Dinitrotoluene (mixed isomers)	DINITROTOLUENEA	25321146		10	313		
Dinocap	DINOCAP	39300453			313		
Dinoseb	DINOSEB	88857	100/10,000	1,000	X	P020	
Dinoterb	DINOTERB	1420071	500/10,000				
Dioxathion	DIOXATHION	78342	500				
Diphacinone	DIPHACINONE	82666	10/10,000				
Diphenamid	DIPHENAMID	957517			313		
Diphenylamine	DIPHENYLAMINE	122394			313		
Diphenylhydrazine	DIPHENYLHYDRAZINE	0		**			
Diphosphoramidate, octamethyl-	DIPHOSPHORAMIDE, OCTAMETHYL-	152169	100	100		P085	
Dipotassium endothall	DIPOTASSIUMENDOTHALL	2164070			313		
Dipropyl isocinchomerate	DIPROPYLISOCINCHOMERONATE	136458			313		
Dipropylamine	DIPROPYLAMINE	142847		5,000		U110	

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Diquat	DIQUAT	85007		1,000			
Diquat	DIQUAT	2764729		1,000			
Disodium cyanodithioimidocarbonate	DISODIUMCYANODITHIOMIDOCARBONATE	138932			313		
Disulfoton	DISULFOTON	298044	500	1		P039	
Dithiazanine iodide	DITHIAZANINE IODIDE	514738	500/10,000				
Dithiobiuret	DITHIOBIURET	541537	100/10,000	100	X	P049	
Diuron	DIURON	330541		100	313		
Dodecylbenzenesulfonic acid	DODECYLBENZENESULFONIC ACID	27176870		1,000			
Dodecylguanidine monoacetate	DODECYLGUANIDINEMONOACETATE	2439103			X		
Dodine	DODINE	2439103			313		
Emetine, dihydrochloride	EMETINE, DIHYDROCHLORIDE	316427	1/10,000				
Endosulfan	ENDOSULFAN	115297	10/10,000	1		P050	
Endosulfan and Metabolites	ENDOSULFAN AND METABOLITES	0		**			
Endosulfan sulfate	ENDOSULFAN SULFATE	1031078		1			
Endothal	ENDOTHA	145733		1,000		P088	
Endothion	ENDOTHION	2778043	500/10,000				
Endrin	ENDRIN	72208	500/10,000	1		P051	
Endrin aldehyde	ENDRIN ALDEHYDE	7421934		1			
Endrin and Metabolites	ENDRIN AND METABOLITES	0		**			
Epichlorohydrin	EPICHLOROHYDRIN	106898	1,000	100	313	U041	20,000
Epinephrine	EPINEPHRINE	51434		1,000		P042	
EPN	EPN	2104645	100/10,000				
EPTC	EPTC	759944			X		
Ergocalciferol	ERGOCALCIFEROL	50146	1,000/10,000				
Ergotamine tartrate	ERGOTAMINE TARTRATE	379793	500/10,000				
Ethanamine	ETHANAMINE	75047		100			10,000
Ethane	ETHANE	74840					10,000
Ethane, 1,1,1,2-tetrachloro-	ETHANETETRACHLORO-	630206		100	X	U208	
Ethane, 1,1,2-trichloro-1,2,2-trifluoro-	ETHANETRICHLOROTRIFLUORO-	76131			X		
Ethane, 1,1-difluoro-	ETHANEDIFLUORO	75376					10,000
Ethane, 1,1'-oxybis-	ETHANEOXYBIS-	60297		100		U117	10,000
Ethane, 1,1'-thiobis[2-chloro-	ETHANETHIOBISCHLORO-	505602	500		X		
Ethane, chloro-	ETHANECHLORO-	75003		100	X		10,000
Ethanedinitrile	ETHANEDINITRILE	460195		100		P031	10,000
Ethanesulfonyl chloride, 2-chloro-	ETHANESULFONYL CHLORIDE, 2-CHLORO-	79210	500		X		10,000
Ethane, chloro-	ETHANETHIOL	1622328	500				
Ethanimidothioic acid, N-[[methylamino]carbonyl]	ETHANIMIDOTHIOIC ACID, N-[[METHYLAMINO]CARBONYL]	75081					10,000
Ethanol, 1,2-dichloro-, acetate	ETHANOL, 1,2-DICHLORO-, ACETATE	16752775	500/10,000	100		P066	
Ethanol, 2-ethoxy-	ETHANOL, 2-ETHOXY-	10140871	1,000				
Ethene	ETHENE	110805		1,000	X	U359	
Ethene, 1,1-dichloro-	ETHENEDICHLORO	74851			X		10,000
Ethene, 1,1-difluoro-	ETHENEDIFLUORO	75354		100	X	U078	10,000
Ethene, bromotrifluoro-	ETHENEBROMOTRIFLUORO	75387					10,000
Ethene, chloro-	ETHENECHLORO-	598732					10,000
Ethene, chlorotrifluoro-	ETHENECHLOROTRIFLUORO	75014			X		10,000
		79389					10,000

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Ethene, ethoxy-	ETHENEETHOXY-	109922					10,000
Ethene, fluoro-	ETHENEFLUORO-	75025					10,000
Ethene, methoxy-	ETHENEMETHOXY-	107255					10,000
Ethene, tetrafluoro-	ETHENETETRAFLUORO-	116143					10,000
Ethion	ETHION	563122	1,000	10			
Ethoprop	ETHOPROP	13194484	1,000		313		
Ethoprophos	ETHOPROPHOS	13194484	1,000		X		
Ethyl-2-(((4-chloro-6-methoxyprimidin-2-yl)-carbonyl)-amino)sulfonyl)benzoate	ETHYLCHLOROMETHOXYPRIMIDINYLCARBONYLAMINO	90982324			X		
Ethyl acetate	ETHYLACETATE	141786		5,000		U112	
Ethyl acetylene	ETHYLACETYLENE	107006					10,000
Ethyl acrylate	ETHYLACRYLATE	140885		1,000	313	U113	
Ethyl carbamate	ETHYLCARBAMATE	51796		100	X	U238	
Ethyl chloride	ETHYLCHLORIDE	75003		100	X		10,000
Ethyl chloroformate	ETHYLCHLOROFORMATE	541413			313		
Ethyl cyanide	ETHYLCYANIDE	107120	500	10		P101	10,000
Ethyl dipropylthiocarbamate	ETHYLDIPROPYLTHIOCARBAMATE EPTC	759944			313		
Ethyl ether	ETHYLETHER	60297		100		U117	10,000
Ethyl mercaptan	ETHYLMERCAPTAN	75081					10,000
Ethyl methacrylate	ETHYLMETHACRYLATE	97632		1,000		U118	
Ethyl methanesulfonate	ETHYLMETHANESULFONATE	62500		1		U119	
Ethyl nitrite	ETHYLNITRITE	109955					10,000
Ethylbenzene	ETHYLBENZENE	100414		1,000	313		
Ethylbis(2-chloroethyl)amine	ETHYLBIS(2-CHLOROETHYL)AMINE	538078	500				
Ethylene	ETHYLENE	74851			313		10,000
Ethylene dibromide	ETHYLENEDIBROMIDE	106934		1	X	U067	
Ethylene dichloride	ETHYLENEDICHLORIDE	107062		100	X	U077	
Ethylene fluorohydrin	ETHYLENEFLUOROHYDRIN	371620	10				
Ethylene glycol	ETHYLENEGLYCOL	107211		1*	313		
Ethylene oxide	ETHYLENEOXIDE	75218	1,000	10	313	U115	10,000
Ethylene thiourea	ETHYLENETHIOUREA	96457		10	313	U116	
Ethylenebis(dithiocarbamic acid, salts & esters)	ETHYLENEBIS(DITHIOCARBAMIC ACID, SALTS & ESTERS)	111546		5,000	X	U114	
Ethylenebis(dithiocarbamic acid, salts and esters)	ETHYLENEBIS(DITHIOCARBAMIC ACID SALTS AND ESTERS)	0			N171		
Ethylenediamine	ETHYLENEDIAMINE	107153	10,000	5,000			20,000
Ethylenediamine-tetraacetic acid (EDTA)	ETHYLENEDIAMINE-TETRAACETIC ACID (EDTA)	60004		5,000			
Ethyleneimine	ETHYLENEIMINE	151564	500	1	313	P054	10,000
Ethylidene Dichloride	ETHYLIDENEDICHLORIDE	75343		1,000	313	U076	
Ethylthiocyanate	ETHYLTHIOCYANATE	542905	10,000				
Ethyne	ETHYNE	74862					10,000
Explosives listed by DOT as Division 1.1	EXPLOSIVES	0					5,000
Famphur	FAMPHUR	52857		1,000	313	P097	
Fenamiphos	FENAMIPHOS	22224926	10/10,000				
Fenarimol	FENARIMOL	60168889			313		
Fenbutatin oxide	FENBUTATINOXIDE	13356086			313		
Fenitrothion	FENITROTHION	122145	500				
Fenoxaprop ethyl	FENOXAPROPETHYL	66441234			313		
Fenoxycarb	FENOXYCARB	72490018			313		

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Fenprothrin	FENPROPATHRIN	39515418			313		
Fensulfthion	FENSULFOTHION	115902	500				
Fenthion	FENTHION	55389			313		
Fenvalerate	FENVALERATE	51630581			313		
Ferbam	FERBAM	14484641			313		
Ferric ammonium citrate	FERRICAMMONIUMCITRATE	1185575		1,000			
Ferric ammonium oxalate	FERRICAMMONIUMOXALATE	2944674		1,000			
Ferric ammonium oxalate	FERRICAMMONIUMOXALATE	55488874		1,000			
Ferric chloride	FERRICCHLORIDE	7705080		1,000			
Ferric fluoride	FERRICFLUORIDE	7783508		100			
Ferric nitrate	FERRICNITRATE	10421484		1,000			
Ferric sulfate	FERRICSULFATE	10028225		1,000			
Ferrous ammonium sulfate	FERROUSAMMONIUM SULFATE	10045893		1,000			
Ferrous chloride	FERROUSCHLORIDE	7758943		100			
Ferrous sulfate	FERROUSSULFATE	7720787		1,000			
Ferrous sulfate	FERROUSSULFATE	7782630		1,000			
Fine mineral fibers	FINEMINERALFIBERS	0		1*			
Fluazifop butyl	FLUAZIFOPBUTYL	69806504			313		
Fluometil	FLUOMETIL	4301502	100/10,000				
Fluometuron	FLUOMETURON	2164172			313		
Fluoranthene	FLUORANTHENE	206440		100		U120	
Fluorene	FLUORENE	86737		5,000			
Fluorine	FLUORINE	7782414	500	10	313	P056	1,000
Fluoroacetamide	FLUOROACETAMIDE	640197	100/10,000	100		P057	
Fluoroacetic acid	FLUOROACETIC ACID	144490	10/10,000				
Fluoroacetic acid, sodium salt	FLUOROACETIC ACID, SODIUM SALT	62748	10/10,000	10	X	P058	
Fluoroacetyl chloride	FLUOROACETYL CHLORIDE	359068	10				
Fluorouracil	FLUOROURACIL	51218	500/10,000		313		
Fluvalinate	FLUVALINATE	69409945			313		
Folpet	FOLPET	133073			313		
Fomesafen	FOMESAFEN	72178020			313		
Fonofos	FONOFOS	944229	500				
Formaldehyde	FORMALDEHYDE	50000	500	100	313	U122	15,000
Formaldehyde (solution)	FORMALDEHYDE (SOLUTION)	50000	500	100	X	U122	15,000
Formaldehyde cyanohydrin	FORMALDEHYDE CYANOHYDRIN	107164	1,000				
Formetanate hydrochloride	FORMETANATE HYDROCHLORIDE	23422539	500/10,000				
Formic acid	FORMIC ACID	64186		5,000	313	U123	
Formic acid, methyl ester	FORMICACIDMETHYL	107313					10,000
Formothion	FORMOTHION	2540821	100				
Formparanate	FORMPARANATE	17702577	100/10,000				
Fosfietan	FOSHIETAN	21548323	500				
Freon 113	FREON113	76131			313		
Fuberidazole	FUBERIDAZ	3878191	100/10,000				
Fumaric acid	FUMARIC	110178		5,000			
Furan	FURAN	110009	500	100		U124	5,000
Furan, tetrahydro-	FURAN, TETRAHYDRO-	109999		1,000		U213	

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Furfural	FURFURAL	98011		5,000		U125	
Gallium trichloride	GALLIUM TRICHLORIDE	13450903	500/10,000				
Glycidylaldehyde	GLYCIDYLALDEHYDE	765344		10		U126	
Glycol Ethers	GLYCOL ETHERS	0		1*	N230		
Guanidine, N-methyl-N'-nitro-N-nitroso-	GUANIDINE, N-METHYL-N'-NITRO-N-NITROSO-	70257		10		U163	
Guthion	GUTHION	86500	10/10,000	1			
Halocethers	HALOETHERS	0		**			
Halomethanes	HALOMETHANES	0		**			
Halon 1211	HALON1211	353593			X		
Halon 1301	HALON1301	75638			X		
Halon 2402	HALON2402	124732			X		
HCFC-121	HCFC-121	354143			X		
HCFC-121a	HCFC-121A	354110			X		
HCFC-123	HCFC-123	306832			X		
HCFC-123a	HCFC-123A	354234			X		
HCFC-123b	HCFC-123B	812044			X		
HCFC-124	HCFC-124	2837890			X		
HCFC-124a	HCFC-124A	354256			X		
HCFC-132b	HCFC-132B	1649087			X		
HCFC-133a	HCFC-133A	75887			X		
HCFC-141b	HCFC-141B	1717006			X		
HCFC-142b	HCFC-142B	75683			X		
HCFC-21	HCFC-21	75434			X		
HCFC-22	HCFC-22	75456			X		
HCFC-225aa	HCFC-225AA	128903219			X		
HCFC-225ba	HCFC-225BA	422480			X		
HCFC-225bb	HCFC-225BB	422446			X		
HCFC-225ca	HCFC-225CA	422560			X		
HCFC-225cb	HCFC-225CB	507551			X		
HCFC-225cc	HCFC-225CC	13474889			X		
HCFC-225da	HCFC-225DA	431867			X		
HCFC-225ea	HCFC-225EA	136013791			X		
HCFC-225eb	HCFC-225EB	111512562			X		
HCFC-253fb	HCFC-253FB	460355			X		
Heptachlor	HEPTACHLOR	76448		1	313	P059	
Heptachlor and Metabolites	HEPTACHLOR AND METABOLITES	0		**			
Heptachlor epoxide	HEPTACHLOR EPOXIDE	1024573		1			
Hexachloro-1,3-butadiene	HEXACHLOROBUTAD	87683		1	313	U128	
Hexachlorobenzene	HEXACHLOROBENZENE	118741		10	313	U127	
Hexachlorobutadiene	HEXACHLOROBUTADIENE	87683		1	X	U128	
Hexachlorocyclohexane (all isomers) CAS 608-73-1	HEXACHLOROCYCLOHEXANEALL	0		**			
Hexachlorocyclohexane (gamma isomer)	HEXACHLOROCYCLOHEXANEGAMMA ISOMER)	58899	1,000/10,000	1	X	U129	
Hexachlorocyclopentadiene	HEXACHLOROCYCLOPENTADIENE	77474	100	10	313	U130	
Hexachloroethane	HEXACHLOROETHANE	67721		100	313	U131	
Hexachloronaphthalene	HEXACHLORONAPHTHA	1335871			313		
Hexachlorophene	HEXACHLOROPHENE	70304		100	313	U132	

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Hexachloropropene	HEXACHLOROPROPENE	1888717		1,000		U243	
Hexaethyl tetraphosphate	HEXAETHYL TETRAPHOSPHATE	757584		100		P062	
Hexakis(2-methyl-2-phenylpropyl)distannoxane	HEXAKISMETHYLPHENYLPROPYLDISTANNOXANE	13356086			X		
Hexamethylene-1,6-diisocyanate	HEXAMETHYLENEDI	822060		1*	313#		
Hexamethylenediamine, N,N'-dibutyl-	HEXAMETHYLENEDIAMINE, N,N'-DIBUTYL-	4835114	500				
Hexamethylphosphoramide	HEXAMETHYLPHOSPHO	680319		1*	313		
Hexane	HEXANE	110543		1*	X		
Hexazinone	HEXAZINONE	51235042			313		
Hydramethylnon	HYDRAMETHYLNON	67485294			313		
Hydrazine	HYDRAZINE	302012	1,000	1	313	U133	15,000
Hydrazine sulfate	HYDRAZINESULFATE	10034932			313		
Hydrazine, 1,1-dimethyl-	HYDRAZINEDIMETHYL-	57147	1,000	10	X	U098	15,000
Hydrazine, 1,2-diethyl-	HYDRAZINEDIETHYL-	1615801		10		U086	
Hydrazine, 1,2-dimethyl-	HYDRAZINE, 1,2-DIMETHYL-	540738		1		U099	
Hydrazine, 1,2-diphenyl-	HYDRAZINE, 1,2-DIPHENYL-	122667		10	X	U109	
Hydrazine, methyl-	HYDRAZINE, METHYL-	60344	500	10	X	P068	15,000
Hydrazobenzene	HYDRAZOBENZENE	122667		10	X	U109	
Hydrochloric acid	HYDROCHLORICACID	7647010		5,000	313		
Hydrochloric acid (conc. 30% or greater)	HYDROCHLORICACID	7647010		5,000	X		15,000
Hydrocyanic acid	HYDROCYANICACID	74908	100	10	X	P063	2,500
Hydrofluoric acid	HYDROFLUORICACID	7664393	100	100	X	U134	
Hydrofluoric acid (conc. 50% or greater)	HYDROFLUORICACID (CONC>)	7664393	100	100	X	U134	1,000
Hydrogen	HYDROGEN	1333740					10,000
Hydrogen chloride (anhydrous)	HYDROGENCHLORIDE	7647010	500	5,000	X		5,000
Hydrogen chloride (gas only)	HYDROGENCHLORIDE (Gas Only)	7647010	500	5,000	X		5,000
Hydrogen cyanide	HYDROGENCYANIDE	74908	100	10	313	P063	2,500
Hydrogen fluoride	HYDROGENFLUORIDE	7664393	100	100	313	U134	
Hydrogen fluoride (anhydrous)	HYDROGENFLUORIDE (ANHYDROUS)	7664393	100	100	X	U134	1,000
Hydrogen peroxide (Conc. > 52%)	HYDROGENPEROXIDE (Conc. > 52%)	7722841	1,000				
Hydrogen selenide	HYDROGENSELENIDE	7783075	10				500
Hydrogen sulfide	HYDROGENSULFIDE	7783064	500	100	313	U135	10,000
Hydroperoxide, 1-methyl-1-phenylethyl-	HYDROPEROXIDE, 1-METHYL-1-PHENYLETHYL-	80159		10	X	U096	
Hydroquinone	HYDROQUINONE	123319	500/10,000	1*	313		
Imazalil	IMAZALIL	35554440			313		
Indeno(1,2,3-cd)pyrene	INDENO(1,2,3-CD)PYRENE	193395		100	313+	U137	
Iron carbonyl (Fe(CO)5), (TB-5-11)-	IRONCARBONYL (Fe(CO)5), (TB-5-11)-	13463406	100		X		2,500
Iron, pentacarbonyl-	IRONPENTACARBONYL-	13463406	100		313		2,500
iso-Amyl acetate	AMYLACETATE-I	123922		5,000			
iso-Butyl acetate	BUTYLACETATE-I	110190		5,000			
iso-Butylamine	BUTYLAMINE-I	78819		1,000			
iso-Butyric acid	BUTYRIC ACIDISO	79312		5,000			
Isobenzan	ISOENZAN	297789	100/10,000				
Isobutane	ISOBUTANE	75285					10,000
Isobutyl alcohol	ISOBUTYL ALCOHOL	78831		5,000		U140	
Isobutyraldehyde	ISOBUTYRALDEHYDE	78842			313		
Isobutyronitrile	ISOBUTYRONITRILE	78820	1,000				20,000

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Isocyanic acid, 3,4-dichlorophenyl ester	ISOCYANIC ACID, 3,4-DICHLOROPHENYL ESTER	102363	500/10,000				
Isodrin	ISODRIN	465736	100/10,000	1	313	P060	
Isafenphos	ISOFENPHOS	2531171			313		
Isofluorphate	ISOFLUORPHATE	55914	100	100		P043	
Isopentane	ISOPENTANE	78784					10,000
Isophorone	ISOPHORONE	78591		5,000			
Isophorone diisocyanate	ISOPHORONE DIISOCYANATE	4098719	100		313#		
Isoprene	ISOPRENE	78795		100			10,000
Isopropanolamine dodecylbenzene sulfonate	ISOPROPANOLAMINE DODECYLBENZENE SULFONATE	42504461		1,000			
Isopropyl alcohol (mfg. strong acid process)	ISOPROPYLALCOHOL	67630			313		
Isopropyl chloride	ISOPROPYLCHLORIDE	75296					10,000
Isopropyl chloroformate	ISOPROPYLCHLOROFORMATE	108236	1,000				15,000
Isopropylamine	ISOPROPYLAMINE	75310					10,000
Isopropylmethylpyrazolyl dimethylcarbamate	ISOPROPYLMETHYLPYRAZOLYL DIMETHYLCARBAMATE	119380	500				
Isosafrole	ISOSAFROLE	120581		100	313	U141	
Isothiocyanatomethane	ISOTHIOCYANATOMETHANE	556616	500		X		
Kepone	KEPONE	143500		1		U142	
Lactofen	LACTOFEN	77501634			313		
Lactonitrile	LACTONITRILE	78977	1,000				
Lasiocarpine	LASIOCARPINE	303344		10		U143	
Lead	LEAD	7439921		10	313		
Lead acetate	LEADACETATE	301042		10		U144	
Lead arsenate	LEADARSENATE	7645252		1			
Lead arsenate	LEADARSENATE	7784409		1			
Lead arsenate	LEADARSENATE	10102484		1			
Lead chloride	LEADCHLORIDE	7758954		10			
Lead Compounds	LEADCOMPOUNDS	0		**	N420		
Lead fluoroborate	LEADFLUOBORATE	13814965		10			
Lead fluoride	LEADFLUORIDE	7783462		10			
Lead iodide	LEADIODIDE	10101630		10			
Lead nitrate	LEADNITRATE	10099748		10			
Lead phosphate	LEADPHOSPHATE	7446277		10		U145	
Lead stearate	LEADSTEARATE	7072351		10			
Lead stearate	LEADSTEARATE	7428480		10			
Lead stearate	LEADSTEARATE	52652592		10			
Lead stearate	LEADSTEARATE	56189094		10			
Lead subacetate	LEADSUBACETATE	1335326		10		U146	
Lead sulfate	LEADSULFATE	7446142		10			
Lead sulfate	LEADSULFATE	15739807		10			
Lead sulfide	LEADSULFIDE	1314870		10			
Lead thiocyanate	LEADTHIOCYANATE	592870		10			
Leptophos	LEPTOPHOS	21609905	500/10,000				
Lewisite	LEWISITE	541253	10				
Lindane	LINDANE	58899	1,000/10,000	1	313	U129	
Linuron	LINURON	330552			313		
Lithium carbonate	LITHIUMCARBONATE	554132			313		

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Lithium chromate	LITHIUMCHROMATE	14307358		10			
Lithium hydride	LITHIUMHYDRIDE	7580678	100				
m-Cresol	CRESOLA	108394		1,000	313	U052	
m-Dinitrobenzene	DINITROBENZENEM	99650		100	313		
m-Nitrophenol	NITROPHENOL-M	554847		100			
m-Nitrotoluene	NITROTOLUENE-M	99081		1,000			
m-Xylene	XYLENEA	108383		1,000	313	U239	
Malathion	MALATHION	121755		100	313		
Maleic acid	MALEICACID	110167		5,000			
Maleic anhydride	MALEICANHYDRIDE	108316		5,000	313	U147	
Maleic hydrazide	MALEICHYDRAZIDE	123331		5,000		U148	
Malononitrile	MALONONITRILE	109773	500/10,000	1,000	313	U149	
Maneb	MANEB	12427382			313		
Manganese	MANGANESE	7439965			313		
Manganese Compounds	MANGANESE COMPOUNDS	0		1*	N450		
Manganese, tricarbonyl methylcyclopentadienyl	MANGANESE, TRICARBONYL METHYLCYCLOPENTADIENYL	12108133	100				
MBOCA	MBOCA	101144		10	X	U158	
MBT	MBT	149304			X		
MCPA	MCPA	94746			X		
MDI	MDI	101688		1*	X		
Mechlorethamine	MECHLORETHAMINE	51752	10		X		
Mecoprop	MECOPROP	93652			313		
Melphalan	MELPHALAN	148823		1		U150	
Mephosfolan	MEPHOSFOLAN	950107	500				
Mercaptodimethur	MERCAPTODIMETHUR	2032657	500/10,000	10	X		
Mercuric acetate	MERCURICACETATE	1600277	500/10,000				
Mercuric chloride	MERCURICCHLORIDE	7487947	500/10,000				
Mercuric cyanide	MERCURICCYANIDE	592041		1			
Mercuric nitrate	MERCURICNITRATE	10045940		10			
Mercuric oxide	MERCURICOXIDE	21908532	500/10,000				
Mercuric sulfate	MERCURICSULFATE	7783359		10			
Mercuric thiocyanate	MERCURICTHIOCYANATE	592858		10			
Mercurous nitrate	MERCUROUSNITRATE	7782867		10			
Mercurous nitrate	MERCUROUSNITRATE	10415755		10			
Mercury	MERCURY	7439976		1	313	U151	
Mercury Compounds	MERCURY COMPOUNDS	0		**	N458		
Mercury fulminate	MERCURY FULMINATE	628864		10		P065	
Merphos	MERPHOS	150505			313		
Methacrolein diacetate	METHACROLEIN DIACETATE	10476956	1,000				
Methacrylic anhydride	METHACRYLIC ANHYDRIDE	760930	500				
Methacrylonitrile	METHACRYLONITRILE	126987	500	1,000	313	U152	10,000
Methacryloyl chloride	METHACRYLOYL CHLORIDE	920467	100				
Methacryloyloxymethyl isocyanate	METHACRYLOYLOXYETHYL ISOCYANATE	30674807	100				
Metham sodium	METHAMSO	137428			313		
Methamidophos	METHAMIC	10265926	100/10,000				
Methanamine	METHANAMIN	74895		100			10,000

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Methanamine, N,N-dimethyl-	METHANAMINEDIMETHYL	75503		100			10,000
Methanamine, N-methyl-	METHANAMINETHYL	124403		1,000	X	U092	10,000
Methanamine, N-methyl-N-nitroso-	METHANAMINETHYLNITROS-	62759	1,000	10	X	P082	
Methane	METHANE	74828					10,000
Methane, chloro-	METHANECHLORO-	74873		100	X	U045	10,000
Methane, chloromethoxy-	METHANECHLOROMETHOXY-	107302	100	10	X	U046	5,000
Methane, isocyanato-	METHANEISOCYANATO-	624839	500	1	X	P064	10,000
Methane, oxybis-	METHANEOXYBIS-	115106					10,000
Methane, oxybis(chloro-	METHANEOXYBISCHLORO-	542881	100	10	X	P016	1,000
Methane, tetranitro-	METHANETETRANITRO-	509148	500	10		P112	10,000
Methane, trichloro-	METHANETRICHORO-	67663	10,000	10	X	U044	20,000
Methanesulfonyl chloride, trichloro-	METHANESULFENYLCHLORIDETRICHORO-	594423	500	100			10,000
Methanesulfonyl fluoride	METHANESULFONYL FLUORIDE	558258	1,000				
Methanethiol	METHANETHIOL	74931	500	100	X	U153	10,000
Methanol	METHANOL	67561		5,000	313	U154	
Methapyriline	METHAPYRILENE	91805		5,000		U155	
Methazole	METHAZOLE	20354261			313		
Methidathion	METHIDATHION	950378	500/10,000				
Methiocarb	METHIOCARB	2032657	500/10,000	10	313		
Methomyl	METHOMYL	16752775	500/10,000	100		P066	
Methoxone	METHOXONE	94746			313		
Methoxone sodium salt	METHOXONESODIUM SALT	3653483			313		
Methoxychlor	METHOXYCHLOR	72435		1	313	U247	
Methoxyethylmercuric acetate	METHOXYETHYLMERCURIC ACETATE	151382	500/10,000				
Methyl 2-chloroacrylate	METHYLCHLOROACRYLATE	80637	500				
Methyl acrylate	METHYLACRYLATE	96333			313		
Methyl bromide	METHYLBROMIDE	74839	1,000	1,000	X	U029	
Methyl chloride	METHYLCHLORIDE	74873		100	X	U045	10,000
Methyl chlorocarbonate	METHYLCHLOROCARBONATE	79221	500	1,000	313	U156	5,000
Methyl chloroform	METHYLCHLOROFORM	71556		1,000	X	U226	
Methyl chloroformate	METHYLCHLOROFORMATE	79221	500	1,000	X	U156	5,000
Methyl ether	METHYLETHER	115106					10,000
Methyl ethyl ketone	METHYLETHYLKETONE	78933		5,000	313	U159	
Methyl ethyl ketone (MEK)	METHYLETHYLKETONE (MEK)	78933		5,000	X	U159	
Methyl ethyl ketone peroxide	METHYLETHYLKETONEPEROXIDE	1338234		10		U160	
Methyl formate	METHYLFORMATE	107313					10,000
Methyl hydrazine	METHYLHYDRAZINE	60344	500	10	313	P068	15,000
Methyl iodide	METHYLIODIDE	74884		100	313	U138	
Methyl isobutyl ketone	METHYLISOBUTYLKETO	108101		5,000	313	U161	
Methyl isocyanate	METHYLISOCYANATE	624839	500	10	313	P064	10,000
Methyl isothiocyanate	METHYLISOTHIOCYANATE	556616	500		313		
Methyl mercaptan	METHYLMERCAPTAN	74931	500	100	313	U153	10,000
Methyl methacrylate	METHYLMETHACRYLATE	80626		1,000	313	U162	
Methyl parathion	METHYLPARATHION	298000	100/10,000	100	313	P071	
Methyl phenkapton	METHYLPHENKAPTON	3735237	500				
Methyl phosphonic dichloride	METHYLPHOSPHONIC DICHLORIDE	676971	100				

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Methyl tert-butyl ether	METHYLTBTYLET	1634044		1*	313		
Methyl thiocyanate	METHYLTHIOCYANATE	556649	10,000				20,000
Methyl vinyl ketone	METHYL VINYL KETONE	78944	10				
Methylene bromide	METHYLENEBROMIDE	74953		1,000	313	U068	
Methylene chloride	METHYLENECHLORIDE	75092		1,000	X	U080	
Methylenebis(phenylisocyanate)	METHYLENEBISPHENYL	101688		1*	313#		
Methylmercuric dicyanamide	METHYLMERCURIC DICYANAMIDE	502396	500/10,000				
Methylthiouracil	METHYLTHIOURACIL	56042		10		U164	
Methyltrichlorosilane	METHYLTRICHLOROSILANE	75796	500		313		5,000
Metiram	METIRAM	9006422			313		
Metolcarb	METOLCARB	1129415	100/10,000				
Metribuzin	METRIBUZIN	21087649			313		
Mevinphos	MEVINPHOS	7786347	500	10	313		
Mexacarbate	MEXACARBATE	315184	500/10,000	1,000			
Michler's ketone	MICHLERSKE E	90948			313		
Mitomycin C	MITOMYC	50077	500/10,000	10		U010	
Molinate	MOLINATE	2212671			313		
Molybdenum trioxide	MOLYBDENI JOXIDE	1313275			313		
Monochloropentafluoroethane	MONOCHLORO; ENTAF LUOROETHANE	76153			313		
Monocrotophos	MONOCROTOPHOS	6923224	10/10,000				
Monoethylamine	MONOETHYLAMINE	75047		100			10,000
Monomethylamine	MONOMETHYLAMINE	74895		100			10,000
Monuron	MONURON	150685			313		
Muscimol	MUSCIMOL	2763964	500/10,000	1,000		P007	
Mustard gas	MUSTARDGAS	505602	500		313		
Myclbutanil	MYCLOBUTANIL	88671890			313		
N-(1-Ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine	ETHYLPROPYLDIMETHYLDINITROBENZENAMINE	40487421			X		
N-(2-Chloro-4-(trifluoromethyl)phenyl)-DL-valine(+)-cyano(3-phenoxyphenyl)methyl ester	CHLOROTRIFLUOROMETHYLPHENYLVALINE(+)-CYANO(3-	69409945			X		
N-(3,4-Dichlorophenyl)propanamide	DICHLOROPHENYLPROPANAMIDE	709988			X		
N-(5-(1,1-Dimethylethyl)-1,3,4-thiadiazol-2-yl)-N,N'-dimethylurea	DIMETHYLETHYLTHIADIAZOLYLDIMETHY	34014181			X		
N,N'-(1,4-Piperazinediylbis(2,2,2-trichloroethylidene)) bisformamide	PIPERAZINEDIYLBISTRICHLOROETHYLIDENEBSF	26644462			X		
N,N'-Bis(1-methylethyl)-6-methylthio-1,3,5-triazine-2,4-diamine	BISMETHYLETHYLMETHYLTHIOTRIAZINEDIA	7287196			X		
N,N-Diethylaniline	DIETHYLANILINE	91667		1*			
N,N-Dimethylaniline	DIMETHYLANILINE	121697		1*	313		
N,N-Dimethylformamide	DIMETHYLFORMAMIDE,N,N-	68122		1*	313		
n-Butyl-N-ethyl-2,6-dinitro-4-(trifluoromethyl)benzenamine	BUTYLETHYLDINITROTRIFLUOROMETHYLBENZENAMINE	1861401			X		
n-Butyl alcohol	BUTYLALCOHOLA	71363		5,000	313	U031	
n-Butyl phthalate	BUTYLPHTHALATE	84742		10	X	U069	
n-Dioctylphthalate	DIOCTYLPHTHALATE	117840		5,000		U107	
N-Ethyl-N'-(1-methylethyl)-6-(methylthio)-1,3,5-triazine-2,4-diamine	ETHYLMETHYLETHYLMETHYLTHIO)-1,3,5- TRIAZINE-2,	834128			X		
n-Hexane	HEXANE-N	110543		1*	313		
N-Methyl-2-pyrrolidone	METHYLPYRROLIDONE	872504			313		
N-Methylolacrylamide	METHYLOLACRYLAMIDE	924425			313		
N-Nitroso-N-ethylurea	NITROSOETHYLURE	759739		1	313	U176	
N-Nitroso-N-methylurea	NITROSOMETHYLUR	684935		1	313	U177	
N-Nitroso-N-methylurethane	NITROSOMETHYLURETHANE	615532		1		U178	

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
N-Nitrosodi-n-butylamine	NITROSODIBUTYL	924163		10	313	U172	
N-Nitrosodi-n-propylamine	NITROSODIPROPYL	621647		10	313	U111	
N-Nitrosodiethanolamine	NITROSODIETHANOLAMINE	1116547		1	313	U173	
N-Nitrosodiethylamine	NITROSODIETHYLAMINE	55185		1	313	U174	
N-Nitrosodimethylamine	NITROSODIMETHYLAMI	62759	1,000	10	313	P082	
N-Nitrosodiphenylamine	NITROSODIPHENYL	86306		100	313		
N-Nitrosomethylvinylamine	NITROSOMETHYL VINYL	4549400		10	313	P084	
N-Nitrosomorpholine	NITROSOMORPHOLINE	59892		1*	313		
N-Nitrosornicotine	NITROSONORNICOTINE	16543558			313		
N-Nitrosopiperidine	NITROSOPIPERIDINE	100754		10	313	U179	
N-Nitrosopyrrolidine	NITROSOPIRROLIDINE	930552		1		U180	
n-Propylamine	PROPYLAMINE	107108		5,000		U194	
Nabam	NABAM	142596			313		
Naled	NALED	300765		10	313		
Naphthalene	NAPHTHALENE	91203		100	313	U165	
Naphthenic acid	NAPHTHENIC ACID	1338245		100			
Nickel	NICKEL	7440020		100	313		
Nickel ammonium sulfate	NICKELAMMONIUM SULFATE	15699180		100			
Nickel carbonyl	NICKELCARBONYL	13463393	1	10		P073	1,000
Nickel chloride	NICKELCHLORIDE	7718549		100			
Nickel chloride	NICKELCHLORIDE	37211055		100			
Nickel Compounds	NICKELCOMPOUNDS	0		**	N495		
Nickel cyanide	NICKELCYANIDE	557197		10		P074	
Nickel hydroxide	NICKELHYDROXIDE	12054487		10			
Nickel nitrate	NICKELNITRATE	14216752		100			
Nickel sulfate	NICKELSULFATE	7786814		100			
Nicotine	NICOTINE	54115	100	100		P075	
Nicotine and salts	NICOTINE AND SALTS	54115		100		P075	
Nicotine and salts	NICOTINE AND SALTS	0			N503		
Nicotine sulfate	NICOTINE SULFATE	65305	100/10,000				
Nitrapyrin	NITRAPYRIN	1929824			313		
Nitrate compounds (water dissociable)	NITRATECOMPOUNDS	0			N511		
Nitric acid	NITRICACID	7697372	1,000	1,000	313		
Nitric acid (conc 80% or greater)	NITRICACID	7697372	1,000	1,000	X		15,000
Nitric oxide	NITRICOXIDE	10102439	100	10		P076	10,000
Nitrioltriacetic acid	NITRILOTRIACETICACI	139139			313		
Nitrobenzene	NITROBENZENE	98953	10,000	1,000	313	U169	
Nitrocyclohexane	NITROCYCLOHEXANE	1122607	500				
Nitrofen	NITROFEN	1836755			313		
Nitrogen dioxide	NITROGEN DIOXIDE	10102440	100	10		P078	
Nitrogen dioxide	NITROGEN DIOXIDE	10544726		10			
Nitrogen mustard	NITROGENMUSTARD	51752	10		313		
Nitrogen oxide (NO)	NITROGENOXIDE (NO)	10102439	100	10		P076	10,000
Nitroglycerin	NITROGLYCERINE	55630		10	313	P081	
Nitrophenol (mixed isomers)	NITROPHENOL (MIXED)	25154556		100			
Nitrophenols	NITROPHENOLS	0		**			

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Nitrosamines	NITROSAMINES	0		**			
Nitrosodimethylamine	NITROSODIMETHYLAMINE	62759	1,000	10	X	P082	
Nitrotoluene	NITROTOLUENE	1321126		1,000			
Nitrous acid, ethyl ester	NITROUSACIDETHYL	109955					10,000
Norbormide	NORBORMIDE	991424	100/10,000				
Norflurazon	NORFLURAZON	27314132			313		
O-(2-(Diethylamino)-6-methyl-4-pyrimidinyl)-O,O-dimethyl phosphorothioate	DIETHYLAMINOMETHYLPYRIMIDINYLDIMETHYLPHO	29232937			X		
O-(4-Bromo-2-chlorophenyl)-O-ethyl-S-propylphosphorothioate	BROMOCHLOROPHENYLETHYLPROPYLPHOSPHOROTHIOATE	41198087			X		
O,O-Diethyl O-pyrazinyl phosphorothioate	DIETHYLPYRAZINYL PHOSPHOROTHIOATE	297972	500	100		P040	
O,O-Diethyl S-methyl dithiophosphate	DIETHYLMETHYLDITHIOPHOSPHATE	3288582		5,000		U087	
O,O-Dimethyl O-(3,5,6-trichloro-2-pyridyl)phosphorothioate	DIMETHYLTRICHLOROPYRIDYLPHOSPHOROTHIOATE	5598130			X		
O,O-Dimethyl O-(3-methyl-4-(methylthio)phenyl) ester, phosphorothioic acid	DIMETHYLMETHYLMETHYLTHIOPHENYLESTERPHOSP	55389			X		
o-Anisidine	ANISIDINEA	90040		1*	313		
o-Anisidine hydrochloride	ANISIDINEHYDROCHL	134292			313		
o-Cresol	CRESOLB	95487	1,000/10,000	1,000	313	U052	
o-Dianisidine dihydrochloride	DIANISIDINEDIHYDROCHLORIDE	20325400			X		
o-Dianisidine hydrochloride	DIANISIDINEHYDROCHLORIDE	111984099			X		
o-Dichlorobenzene	DICHLOROENZENE	95501		100	X	U070	
o-Dinitrobenzene	DINITROBENZENE	528290		100	313		
O-Ethyl O-(4-(methylthio)phenyl)phosphorodithioic acid S-propyl ester	ETHYLMETHYLTHIOPHENYLPHOSPHORODITHIOIC ACID S-PRO	35400432			X		
o-Nitrotoluene	NITROTOLUENE-O	88722		1,000			
o-Tolidine	TOLIDINE	119937		10	X	U095	
o-Tolidine dihydrochloride	TOLIDINEDIHYDROCHLORIDE	612828			X		
o-Tolidine dihydrofluoride	TOLIDINEDIHYDROFLUORIDE	41766750			X		
o-Toluidine	TOLUIDINE	95534		100	313	U328	
o-Toluidine hydrochloride	TOLUIDINEHYDROCHL	636215		100	313	U222	
o-Xylene	XYLENEB	95476		1,000	313	U239	
Octachloronaphthalene	OCTACHLORONAPHTHALEN	2234131			313		
Octanoic acid, 2,6-dibromo-4-cyanophenyl ester	OCTANOIC ACIDDIBROMOCYANOPHENYL ESTER	1689992			X		
Oleum (fuming sulfuric acid)	OLEUM	8014957		1,000			10,000
Organorhodium Complex (PMN-82-147)	ORGANORHODIUM COMPLEX (PMN-82-147)	0	10/10,000				
Oryzalin	ORYZALIN	19044883			313		
Osmium oxide OsO4 (T-4)-	OSMIUM OXIDE OSO4 (T-4)-	20816120		1,000	X	P087	
Osmium tetroxide	OSMIUMTETROXIDE	20816120		1,000	313	P087	
Oxabain	OUABAIN	630604	100/10,000				
Oxamyl	OXAMYL	23135220	100/10,000				
Oxetane, 3,3-bis(chloromethyl)-	OXETANE, 3,3-BISCHLOROMETHYL-	78717	500				
Oxirane	OXIRANE	75218	1,000	10	X	U115	10,000
Oxirane, (chloromethyl)-	OXIRANECHLOROMETHYL-	106898	1,000	100	X	U041	20,000
Oxirane, methyl-	OXIRANEMETHYL-	75569	10,000	100	X		10,000
Oxydemeton methyl	OXYDEMETONMETHYL	301122			313		
Oxydiazon	OXYDIAZON	19666309			313		
Oxydisulfoton	OXYDISULFOT N	2497076	500				
Oxyfluorfen	OXYFLUOF	42874033			313		
Ozone	OZONE	10028156	100		313		
p-Anisidine	ANISIDINEB	104949			313		

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
p-Benzoquinone	BENZOQUINONE	106514		10	X	U197	
p-Chloro-m-cresol	CHLOROCRESOL	59507		5,000		U039	
p-Chloro-o-toluidine	CHLOROTOLUIDINE	95692			313		
p-Chloroaniline	CHLOROANILINE	106478		1,000	313	P024	
p-Chlorophenyl isocyanate	CHLOROPHENYLISOCYANATE	104121			313		
p-Cresidine	CRESIDINE	120718			313		
p-Cresol	CRESOLC	106445		1,000	313	U052	
p-Dinitrobenzene	DINITROBENZENE	100254		100	313		
p-Nitroaniline	NITROANILINE	100016		5,000	313	P077	
p-Nitrophenol	NITROPHENOL-P	100027		100	X	U170	
p-Nitrosodiphenylamine	NITROSODIPHENYL	156105			313		
p-Nitrotoluene	NITROTOLUENE-P	99990		1,000			
p-Phenylenediamine	PHENYLENEDIAMINE	106503		1*	313		
p-Toluidine	TOLUIDINE	106490		100		U353	
p-Xylene	XYLENE	106423		1,000	313	U239	
Paraformaldehyde	PARAFORMALDEHYDE	30525894		1,000			
Paraldehyde	PARALDEHYDE	123637		1,000	313	U182	
Paraquat dichloride	PARAQUATDICHLORIDE	1910425	10/10,000		313		
Paraquat methosulfate	PARAQUAT METHOSULFATE	2074502	10/10,000				
Parathion	PARATHION	56382	100	10	313	P089	
Parathion-methyl	PARATHION-METHYL	298000	100/10,000	100	X	P071	
Paris green	PARIS GREEN	12002038	500/10,000	1			
PCBs	PCBS	1336363		1	X		
PCNB	PCNB	82688		100	X	U185	
PCP	PCP	87865		10	X		
Pebulate	PEBULATE	1114712			313		
Pendimethalin	PENDIMETHALIN	40487421			313		
Pentaborane	PENTABORANE	19624227	500				
Pentachlorobenzene	PENTACHLOROBENZENE	608935		10		U183	
Pentachloroethane	PENTACHLOROETHANE	76017		10	313	U184	
Pentachloronitrobenzene	PENTACHLORONITROBENZENE (PCNB)	82688		100	X	U185	
Pentachlorophenol	PENTACHLOROPHENOLP	87865		10	313		
Pentadecylamine	PENTADECYLAMINE	2570265	100/10,000				
Pentane	PENTANE	109660					10,000
Pentobarbital sodium	PENTOBARBITALSODIUM	57330			313		
Peracetic acid	PERACETICACID	79210	500		313		10,000
Perchloroethylene	PERCHLOROETHYLENE	127184		100	X	U210	
Perchloromethyl mercaptan	PERCHLOROMETHYLMERCAPTAN	594423	500	100	313		10,000
Permethrin	PERMETHRIN	52645531			313		
Phenacetin	PHENACETIN	62442		100		U187	
Phenanthrene	PHENANTHRENE	85018		5,000	313		
Phenol	PHENOL	108952	500/10,000	1,000	313	U188	
Phenol, 2-(1-methylethoxy)-, methylcarbamate	PHENOLMETHYLETHOXYMETHYLCARBAMATE	114261		1*	X		
Phenol, 2,2'-thiobis[4-chloro-6-methyl-	PHENOLTHIOBIS[4-CHLORO-6-METHYL-	4418660	100/10,000				
Phenol, 3-(1-methylethyl)-, methylcarbamate	PHENOL, 3-(1-METHYLETHYL)-, METHYLCARBAMATE	64006	500/10,000				
Phenothrin	PHENOTHRIN	26002802			313		

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Phenoxarsine, 10,10'-oxydi-	PHENOXARSINE, 10,10'-OXYDI-	58366	500/10,000				
Phenyl dichloroarsine	PHENYLDICHLOROARSINE	696286	500	1		P036	
Phenylhydrazine hydrochloride	PHENYLHYDRAZINE HYDROCHLORIDE	59881	1,000/10,000				
Phenylmercuric acetate	PHENYLMERCURIC ACETATE	62384	500/10,000	100		P092	
Phenylmercury acetate	PHENYLMERCURY ACETATE	62384	500/10,000	100		P092	
Phenylsilatrane	PHENYLSILATRANE	2097190	100/10,000				
Phenylthiourea	PHENYLTHIOUREA	103855	100/10,000	100		P093	
Phenytol	PHENYTOIN	57410			313		
Phorate	PHORATE	298022	10	10		P094	
Phosacetim	PHOSACETIM	4104147	100/10,000				
Phosolan	PHOSPOLAN	947024	100/10,000				
Phosgene	PHOSGENE	75445	10	10	313	P095	500
Phosmet	PHOSMET	732116	10/10,000				
Phosphamidon	PHOSPHAMIDON	13171216	100				
Phosphine	PHOSPHINE	7803512	500	100	313	P096	5,000
Phosphonic acid, (2,2,2-trichloro-1-hydroxyethyl)-, dimethyl ester	PHOSPHONIC ACID, (2,2,2-TRICHLORO-1-HYDROXYETHYL)-, DIMETHYL	52686		100	X		
Phosphonothioic acid, methyl-, O-(4-nitrophenyl) O-phenyl ester	PHOSPHONOTHIOIC ACID, METHYL-, O-(4-NITROPHENYL) O-	2665307	500				
Phosphonothioic acid, methyl-, O-ethyl O-(4-(methylthio)phenyl) ester	PHOSPHONOTHIOIC ACID, METHYL-, O-ETHYL O-(4-(METHY	2703131	500				
Phosphonothioic acid, methyl-, S-(2-(bis(1-methylethyl)amino)ethyl) O-ethyl ester	PHOSPHONOTHIOIC ACID, METHYL-, S-(2-(BIS(1-METHYLE	50782699	100				
Phosphoric acid	PHOSPHORICACID	7664382			5,000	313	
Phosphoric acid, 2-chloro-1-(2,3,5-trichlorophenyl) ethenyl dimethyl ester	PHOSPHORICACIDCHLOROTRICHLOROPHENYL) ETHENYL	961115			X		
Phosphoric acid, 2-dichloroethenyl dimethyl ester	PHOSPHORICACIDDICHLOROETHENYL DIMETHYL ESTER	62737	1,000	10	X		
Phosphoric acid, dimethyl 4-(methylthio) phenyl ester	PHOSPHORICACIDDIMETHYL 4-(METHYLTHIO) PHENYL ES	3254635	500				
Phosphorodithioic acid O-ethyl S,S-dipropyl ester	PHOSPHORODITHIOICACIDETHYLDIPROPYL ESTER	13194484	1,000		X		
Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	PHOSPHOROTHIOICACIDDIETHYLNITROPHENYL) ESTER	56382	100	10	X	P089	
Phosphorothioic acid, O,O-dimethyl-S-(2-(methylthio)ethyl)ester	PHOSPHOROTHIOICACIDDIMETHYLMETHYLTHIO	2587908	500				
Phosphorous trichloride	PHOSPHOROUSTRICHLORIDE	7719122	1,000	1,000			15,000
Phosphorus	PHOSPHORUS	7723140	100	1			
Phosphorus (yellow or white)	PHOSPHORUS	7723140	100	1	313		
Phosphorus oxychloride	PHOSPHORUS OXYCHLORIDE	10025873	500	1,000			5,000
Phosphorus pentachloride	PHOSPHORUS PENTACHLORIDE	10026138	500				
Phosphorus pentoxide	PHOSPHORUS PENTOXIDE	1314563	10				
Phosphorus trichloride	PHOSPHORUS TRICHLORIDE	7719122	1,000	1,000			15,000
Phosphoryl chloride	PHOSPHORYLCHLORIDE	10025873	500	1,000			5,000
Phthalate Esters	PHTHALATE ESTERS	0		**			
Phthalic anhydride	PHTHALICANHYDRIDE	85449			5,000	313	U190
Physostigmine	PHYSOSTIGMINE	57476	100/10,000				
Physostigmine, salicylate (1:1)	PHYSOSTIGMINE, SALICYLATE (1:1)	57647	100/10,000				
Picloram	PICLORAM	1918021			313		
Picric acid	PICRICACID	88891			313		
Picrotoxin	PICROTOXIN	124878	500/10,000				
Piperidine	PIPERIDINE	110894	1,000				15,000
Piperonyl butoxide	PIPERONYLBUTOXIDE	51036			313		
Pirimifos-ethyl	PIRIMIPOS-ETHYL	23505411	1,000				
Pirimiphos methyl	PIRIMIPHOSMETHYL	29232937			313		
Plumbane, tetramethyl-	PLUMBANETETRAMETHYL-	75741	100				10,000

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Polybrominated Biphenyls (PBBs)	POLYBROMINATED BIPHENYLS (PBBs)	0			N575		
Polychlorinated alkanes (C10 to C13)	POLYCHLORINATED ALKANES	0			N583		
Polychlorinated biphenyls	POLYCHLORINATED BIPH	1336363		I	313		
Polycyclic aromatic compounds (includes only 19 chemicals)	POLYCYCLIC AROMATIC COMPOUNDS	0			N590		
Polycyclic organic matter	POLYCYCLIC ORGANIC MATTER	0		I*			
Polymeric diphenylmethane diisocyanate	POLYMERIC DIPHENYLMETHANEDIISOCYANATE	9016879			313#		
Polynuclear Aromatic Hydrocarbons	POLYNUCLEAR AROMATIC HYDROCARBONS	0		**			
Potassium arsenate	POTASSIUM ARSENATE	7784410		I			
Potassium arsenite	POTASSIUM ARSENITE	10124502	500/10,000	I			
Potassium bichromate	POTASSIUM BICHROMATE	7778509		10			
Potassium bromate	POTASSIUM BROMATE	7758012			313		
Potassium chromate	POTASSIUM CHROMATE	7789006		10			
Potassium cyanide	POTASSIUM CYANIDE	151508	100	10		P098	
Potassium dimethyldithiocarbamate	POTASSIUM DIMETHYLDITHIOCARBAMATE	128030			313		
Potassium hydroxide	POTASSIUM HYDROXIDE	1310583		1,000			
Potassium N-methyldithiocarbamate	POTASSIUM METHYLDITHIOCARBAMATE	137417			313		
Potassium permanganate	POTASSIUM PERMANGANATE	7722647		100			
Potassium silver cyanide	POTASSIUM SILVER CYANIDE	506616	500	I		P099	
Profenofos	PROFENOFOS	41198087			313		
Promecarb	PROMECARB	2631370	500/10,000				
Prometryn	PROMETRYN	7287196			313		
Pronamide	PRONAMIDE	23950585		5,000	313	U192	
Propachlor	PROPACHLOR	1918167			313		
Propadiene	PROPADIENE	463490					10,000
Propane	PROPANE	74986					10,000
Propane 1,2-dichloro-	PROPANE 1,2-DICHLORO-	78875		1,000	X	U083	
Propane sulfone	PROPANESULTONE	1120714		10	313	U193	
Propane, 2,2-dimethyl-	PROPANEDIMETHYL	463821					10,000
Propane, 2-chloro-	PROPANECHLORO	75296					10,000
Propane, 2-methyl	PROPANEMETHYL	75285					10,000
Propanenitrile	PROPANENITRILE	107120	500	10		P101	10,000
Propanenitrile, 2-methyl-	PROPANENITRILEMETHYL-	78820	1,000				20,000
Propanil	PROPANIL	709988			313		
Propargite	PROPARGITE	2312358		10	313		
Propargyl alcohol	PROPARGYL ALCOHOL	107197		1,000	313	P102	
Propargyl bromide	PROPARGYL BROMIDE	106967	10				
Propene	PROPENE	115071			X		10,000
Propetamphos	PROPETAMPHOS	31218834			313		
Propiconazole	PROPICONAZOLE	60207901			313		
Propionaldehyde	PROPIONALDEHYDE	123386		I*	313		
Propionic acid	PROPIONICACID	79094		5,000			
Propionic anhydride	PROPIONICANHYDRIDE	123626		5,000			
Propionitrile	PROPIONITRILE	107120	500	10		P101	10,000
Propionitrile, 3-chloro-	PROPIONITRILE, 3-CHLORO-	542767	1,000	1,000	X	P027	
Propiophenone, 4'-amino	PROPIOPHENONE, 4-AMINO	70699	100/10,000				
Propoxur	PROPOXUR	114261		I*	313		

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NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Propyl chloroformate	PROPYLCHLOROFORMATE	109615	500				15,000
Propylene	PROPYLENE	115071			313		10,000
Propylene oxide	PROPYLENEOXIDE	75569	10,000	100	313		10,000
Propyleneimine	PROPYLENEIMINE	75558	10,000	1	313	P067	10,000
Propyne	PROPYNE	74997					10,000
Prothoate	PROTHOATE	2275185	100/10,000				
Pyrene	PYRENE	129000	1,000/10,000	5,000			
Pyrethrins	PYRETHRINS	121211		1			
Pyrethrins	PYRETHRINS	121299		1			
Pyrethrins	PYRETHRINS	8003347		1			
Pyridine	PYRIDINE	110861		1,000	313	U196	
Pyridine, 2-methyl-5-vinyl-	PYRIDINEMETHYLVINYL-	140761	500				
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	PYRIDINEMETHYLPYRROLIDINYL(S)-	54115	100	100		P075	
Pyridine, 4-amino-	PYRIDINEAMINO-	504245	500/10,000	1,000		P008	
Pyridine, 4-nitro-, 1-oxide	PYRIDINENITROOXIDE	1124330	500/10,000				
Pyriminil	PYRIMINIL	53558251	100/10,000				
Quinoline	QUINOLIN ²	91225		5,000	313		
Quinone	QUINONE	106514		10	313	U197	
Quintozone	QUINTOZE	82688		100	313	U185	
Quizalofop-ethyl	QUIZALOFOP-ETHYL	76578148			313		
Reserpine	RESERPINE	50555		5,000		U200	
Resmethrin	RESMETHRIN	10453868			313		
Resorcinol	RESORCINOL	108463		5,000		U201	
S-(2-(Ethylsulfanyl)ethyl) O,O-dimethyl ester phosphorothioic acid	ETHYLSULFINYLETHYLDIMETHYLESTERPHOSPHOROTHIOI	301122			X		
S,S,S-Tributyltrithiophosphate	TRIBUTYLTRITHIOPHOSPHATE (DEF)	78488			313		
Saccharin (manufacturing)	SACCHARIN	81072		100	313	U202	
Saccharin and salts	SACCHARIN AND SALTS	81072		100		U202	
Safrole	SAFROLE	94597		100	313	U203	
Salcomine	SALCOMINE	14167181	500/10,000				
Sarin	SARIN	107448	10				
sec-Amyl acetate	AMYLACETATE-S	626380		5,000			
sec-Butyl acetate	BUTYLACETATE-S	105464		5,000			
sec-Butyl alcohol	BUTYLALCOHOL-B	78922			313		
sec-Butylamine	BUTYLAMINE-S	513495		1,000			
sec-Butylamine	BUTYLAMINE-S	13952846		1,000			
Selenious acid	SELENIUS ACID	7783008	1,000/10,000	10		U204	
Selenious acid, dithallium(1+) salt	SELENIUS ACID, DITHALLIUM(1+) SALT	12039520		1,000		P114	
Selenium	SELENIUM	7782492		100	313		
Selenium Compounds	SELENIUMCOMPOUNDS	0		**	N725		
Selenium dioxide	SELENIUMDIOXIDE	7446084		10			
Selenium oxychloride	SELENIUMOXYCHLORIDE	7791233	500				
Selenium sulfide	SELENIUMSULFIDE	7488564		10		U205	
Selenourea	SELENOUREA	630104		1,000		P103	
Semicarbazide hydrochloride	SEMICARBAZIDE HYDROCHLORIDE	563417	1,000/10,000				
Sethoxydim	SETHOXYDIM	74051802			313		
Silane	SILANE	7803625					10,000

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Silane, (4-aminobutyl)diethoxymethyl-	SILANE, (4-AMINOBTYL)DIETHOXYMETHYL-	3037727	1,000				
Silane, chlorotrimethyl-	SILANECHLOROTRIMETHYL-	75774	1,000		X		10,000
Silane, dichloro-	SILANEDICHLORO-	4109960					10,000
Silane, dichlorodimethyl-	SILANEDICHLORODIMETHYL-	75785	500		X		5,000
Silane, tetramethyl-	SILANETETRAMETHYL-	75763					10,000
Silane, trichloro-	SILANETRICHORO-	10025782					10,000
Silane, trichloromethyl-	SILANETRICHLOROMETHYL-	75796	500		X		5,000
Silver	SILVER	7440224		1,000	313		
Silver Compounds	SILVER AND COMPOUNDS	0		**	N740		
Silver cyanide	SILVERCYANIDE	506649		1		P104	
Silver nitrate	SILVERNITRATE	7761888		1			
Silvex (2,4,5-TP)	SILVEX (2,4,5-TP)	93721		100			
Simazine	SIMAZINE	122349			313		
Sodium	SODIUM	7440235		10			
Sodium arsenate	SODIUM ARSENATE	7631892	1,000/10,000	1			
Sodium arsenite	SODIUM ARSENITE	7784465	500/10,000	1			
Sodium azide (Na(N3))	SODIUM AZIDE (Na(N3))	26628228	500	1,000	313	P105	
Sodium bichromate	SODIUM BICHROMATE	10588019		10			
Sodium bifluoride	SODIUM BIFLUORIDE	1333831		100			
Sodium bisulfite	SODIUM BISULFITE	7631905		5,000			
Sodium cacodylate	SODIUM CACODYLATE	124652	100/10,000				
Sodium chromate	SODIUM CHROMATE	7775113		10			
Sodium cyanide (Na(CN))	SODIUM CYANIDE (Na(CN))	143339	100	10		P106	
Sodium dicamba	SODIUM DICAMBA	1982690			313		
Sodium dimethyldithiocarbamate	SODIUM DIMETHYLDITHIOCARBAMATE	128041			313		
Sodium dodecylbenzenesulfonate	SODIUM DODECYLBENZENESULFONATE	25155300		1,000			
Sodium fluoride	SODIUM FLUORIDE	7681494		1,000			
Sodium fluoroacetate	SODIUM FLUOROACETATE	62748	10/10,000	10	313	P058	
Sodium hydrosulfide	SODIUM HYDROSULFIDE	16721805		5,000			
Sodium hydroxide	SODIUM HYDROXIDE	1310732		1,000			
Sodium hypochlorite	SODIUM HYPOCHLORITE	7681529		100			
Sodium hypochlorite	SODIUM HYPOCHLORITE	10022705		100			
Sodium methylate	SODIUM METHYLATE	124414		1,000			
Sodium methyldithiocarbamate	SODIUM METHYLDITHIOCARBAMATE	137428			X		
Sodium nitrite	SODIUM NITRITE	7632000		100	313		
Sodium o-phenylphenoxide	SODIUM PHENYLPHENOXIDE	132274			313		
Sodium pentachlorophenate	SODIUM PENTACHLOROPHENATE	131522			313		
Sodium phosphate, dibasic	SODIUM PHOSPHATE, DIBASIC	7558794		5,000			
Sodium phosphate, dibasic	SODIUM PHOSPHATE, DIBASIC	10039324		5,000			
Sodium phosphate, dibasic	SODIUM PHOSPHATE, DIBASIC	10140655		5,000			
Sodium phosphate, tribasic	SODIUM PHOSPHATE, TRIBASIC	7601549		5,000			
Sodium phosphate, tribasic	SODIUM PHOSPHATE, TRIBASIC	7758294		5,000			
Sodium phosphate, tribasic	SODIUM PHOSPHATE, TRIBASIC	7785844		5,000			
Sodium phosphate, tribasic	SODIUM PHOSPHATE, TRIBASIC	10101890		5,000			
Sodium phosphate, tribasic	SODIUM PHOSPHATE, TRIBASIC	10124568		5,000			
Sodium phosphate, tribasic	SODIUM PHOSPHATE, TRIBASIC	10361894		5,000			

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Sodium selenate	SODIUM SELENATE	13410010	100/10,000				
Sodium selenite	SODIUM SELENITE	7782823		100			
Sodium selenite	SODIUM SELENITE	10102188	100/10,000	100			
Sodium tellurite	SODIUM TELLURITE	10102202	500/10,000				
Stannane, acetoxyltriphenyl-	STANNANE, ACETOXYTRIPHENYL-	900958	500/10,000				
Strontium chromate	STRONTIUM CHROMATE	7789062		10			
Strychnine	STRYCHNINE	57249	100/10,000	10		P108	
Strychnine and salts	STRYCHNINE	0			N746		
Strychnine, and salts	STRYCHNINE, AND SALTS	57249		10		P108	
Strychnine, sulfate	STRYCHNINE, SULFATE	60413	100/10,000				
Styrene	STYRENEMONOMER	100425		1,000	313		
Styrene oxide	STYRENEOXIDE	96093		1*	313		
Sulfotep	SULFOTEP	3689245	500			P109	
Sulfoxide, 3-chloropropyl octyl	SULFOXIDE, 3-CHLOROPROPYL OCTYL	3569571	500	100			
Sulfur dioxide	SULFURDIOXIDE	7446095	500				
Sulfur dioxide (anhydrous)	SULFURDIOXIDE	7446095	500				5,000
Sulfur fluoride (SF4), (T-4)-	SULFURFLUORIDE (SF4), (T-4)-	7783600	100				2,500
Sulfur monochloride	SULFURMONOCHLORIDE	12771083		1,000			
Sulfur phosphide	SULFURPHOSPHIDE	1314803		100		U189	
Sulfur tetrafluoride	SULFURTETRAFLUORIDE	7783600	100				2,500
Sulfur trioxide	SULFURTRIOXIDE	7446119	100				10,000
Sulfuric acid	SULFURICACID	7664939	1,000	1,000	313		
Sulfuric acid (fuming)	SULFURICACID (FUMING)	8014957		1,000			10,000
Sulfuric acid, mixture with sulfur trioxide	SULFURICACID MIXTURE WITH SULFUR TRIOXIDE	8014957		1,000			10,000
Sulfuryl fluoride	SULFURYLFLUORIDE	2699798			313		
Sulprofos	SULPROFOS	35400432			313		
Tabun	TABUN	77816	10				
Tebuthiuron	TEBUTHIURON	34014181			313		
Tellurium	TELLURIUM	13494809	500/10,000				
Tellurium hexafluoride	TELLURIUM HEXAFLUORIDE	7783804	100				
Temephos	TEMEPHOS	3383968			313		
Tepp	TEPP	107493	100	10		P111	
Terbacil	TERBACIL	5902512			313		
Terbufos	TERBUFOS	13071799	100				
tert-Amyl acetate	AMYLACETATE-T	625161		5,000			
tert-Butyl acetate	BUTYLACETATE-T	540885		5,000			
tert-Butyl alcohol	BUTYLALCOHOLC	75650			313		
tert-Butylamine	BUTYLAMINE-T	75649		1,000			
Tetrachloroethylene	TETRACHLOROETHYLENE	127184		100	313	U210	
Tetrachlorvinphos	TETRACHLORVINPHOS	961115			313		
Tetracycline hydrochloride	TETRACYCLINEHYDROCHLORIDE	64755			313		
Tetraethyl lead	TETRAETHYLLEAD	78002	100	10		P110	
Tetraethyl pyrophosphate	TETRAETHYLPYROPHOSPHATE	107493	100	10		P111	
Tetraethylthiopyrophosphate	TETRAETHYLDITHIOPYROPHOSPHATE	3689245	500	100		P109	
Tetraethyltin	TETRAETHYLT N	597648	100				
Tetrafluoroethylene	TETRAFLUORETHYLENE	116143					10,000

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione	TETRAHYDRODIMETHYLTHIADIAZINETHIONE	533744			X		
Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione, ion (1-), sodium	TETRAHYDRODIMETHYLTHIADIAZINETHIONEION(1	53404607			X		
Tetrahydro-5,5-dimethyl-2(1H)-pyrimidinone(3-(4-(trifluoromethyl)phenyl)-1-(2-(4-(trifluoromethyl)phenyl)ethenyl)-2-propenylidene)hydrazone	TETRAHYDRODIMETHYLPYRIMIDINONETRIFLUOROME	67485294			X		
Tetramethrin	TETRAMETHRIN	7696120			313		
Tetramethylead	TETRAMETHYLLEAD	75741	100				10,000
Tetramethylsilane	TETRAMETHYLSILANE	75763					10,000
Tetranitromethane	TETRANITROMETHANE	509148	500	10		P112	10,000
Thallite oxide	THALLIC OXIDE	1314325		100		P113	
Thallium	THALLIUM	7440280		1,000	313		
Thallium chloride (TICI)	THALLIUMCHLORIDE TICI	7791120	100/10,000	100		U216	
Thallium Compounds	THALLIUMCOMPOUNDS	0		**	N760		
Thallium sulfate	THALLIUMSULFATE	10031591	100/10,000	100			
Thallium(I) acetate	THALLIUMACETATE	563688		100		U214	
Thallium(I) carbonate	THALLIUMCARBONATE	6533739	100/10,000	100		U215	
Thallium(I) nitrate	THALLIUMNITRATE	10102451		100		U217	
Thallium(I) sulfate	THALLIUMSULFATE	7446186	100/10,000	100		P115	
Thallos carbonate	THALLOUS CARBONATE	6533739	100/10,000	100		U215	
Thallos chloride	THALLOUS CHLORIDE	7791120	100/10,000	100		U216	
Thallos malonate	THALLOUS MALONATE	2757188	100/10,000				
Thallos sulfate	THALLOUS SULFATE	7446186	100/10,000	100		P115	
Thiabenzazole	THIABENZAZOLE	148798			313		
Thioacetamide	THIOACETAMIDE	62555		10	313	U218	
Thiobencarb	THIOBENCARB	28249776			313		
Thiocarbazine	THIOCARBAZIDE	2231574	1,000/10,000				
Thiocyanic acid, methyl ester	THIOCYANICACIDMETHYLESTER	556649	10,000				20,000
Thiodicarb	THIODICARB	59669260			313		
Thiofanox	THIOFANOX	39196184	100/10,000	100		P045	
Thiomethanol	THIOMETHANOL	74931	500	100	X	U153	10,000
Thionazin	THIONAZIN	297972	500	100		P040	
Thiophanate-methyl	THIOPHANATEMETHYL	23564058			313		
Thiophanate ethyl	THIOPHANATEETHYL	23564069			313		
Thiophenol	THIOPHENOL	108985	500	100		P014	
Thiosemicarbazide	THIOSEMICARBAZIDE	79196	100/10,000	100	313	P116	
Thiourea	THIOUREA	62566		10	313	U219	
Thiourea, (2-chlorophenyl)-	THIOUREA, (2-CHLOROPHENYL)-	5344821	100/10,000	100		P026	
Thiourea, (2-methylphenyl)-	THIOUREA, (2-METHYLPHENYL)-	614788	500/10,000				
Thiourea, 1-naphthalenyl-	THIOUREANAPHTHALENYL-	86884	500/10,000	100		P072	
Thiram	THIRAM	137268		10	313	U244	
Thorium dioxide	THORIUMDIOXIDE	1314201			313		
Titanium chloride (TiCl4) (T-4)-	TITANIUMCHLORIDE (TiCl4) (T-4)-	7550450	100	1*	X		2,500
Titanium tetrachloride	TITANIUMTETRACHLOR	7550450	100	1*	313		2,500
Toluene	TOLUENE	108883		1,000	313	U220	
Toluene-2,4-diisocyanate	TOLUENEDIISOCYANATEB	584849	500	100	313		10,000
Toluene-2,6-diisocyanate	TOLUENEDIISOCYANATEA	91087	100	100	313		10,000
Toluene diisocyanate (unspecified isomer)	TOLUENEDIISOCYANATEM	26471625		100	X	U223	10,000

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	313	RCRACODE	CAA 112F
Toluenediamine	TOLUENEDIAMINE	25376458		10	X	U221	
Toluenediisocyanate (mixed isomers)	TOLUENEDIISOCYANATEC	26471625		100	313	U223	10,000
Toxaphene	TOXAPHENE	8001352	500/10,000	1	313	P123	
trans-1,3-Dichloropropene	DICHLOROPROPENE13T	10061026			313		
trans-1,4-Dichloro-2-butene	DICHLOROBUTENE	110576	500		313		
trans-1,4-Dichlorobutene	DICHLOROBUTENE	110576	500		X		
Triadimefon	TRIADIMEFON	43121433			313		
Triallate	TRIALATE	2303175			313		
Triamiphos	TRIAMIPHOS	1031476	500/10,000				
Triaziquone	TRIAZQUONE	68768			313		
Triazofos	TRIAZOFOS	24017478	500				
Tribenuron methyl	TRIBENURONMETHYL	101200480			313		
Tribromomethane	TRIBROMOMETHANE	75252		100	X	U225	
Tributyltin fluoride	TRIBUTYL TIN FLUORIDE	1983104			313		
Tributyltin methacrylate	TRIBUTYL TIN METHACRYLATE	2155706			313		
Trichlorfon	TRICHLORFON	52686		100	313		
Trichloro(chloromethyl)silane	TRICHLOROCHLOROMETHYLSILANE	1558254	100				
Trichloro(dichlorophenyl)silane	TRICHLORODICHLOROPHENYLSILANE	27137855	500				
Trichloroacetyl chloride	TRICHLOROACETYL CHLORIDE	76028	500		313		
Trichloroethylene	TRICHLOROETHYLENE	79016		100	313	U228	
Trichloroethylsilane	TRICHLOROETHYLSILANE	115219	500				
Trichlorofluoromethane	TRICHLOROFLUOROMETHANE	75694		5,000	313	U121	
Trichloromethanesulfenyl chloride	TRICHLOROMETHANESULFENYL CHLORIDE	594423	500	100	X		10,000
Trichloromonofluoromethane	TRICHLOROMONOFUOROMETHANE	75694		5,000	X	U121	
Trichloronate	TRICHLORONATE	327980	500				
Trichlorophenol	TRICHLOROPHENOL	25167822		10			
Trichlorophenylsilane	TRICHLOROPHENYLSILANE	98135	500				
Trichlorosilane	TRICHLOROSILANE	10025782					10,000
Triclopyr triethylammonium salt	TRICLOPYR TRIETHYLAMMONIUM SALT	57213691			313		
Triethanolamine dodecylbenzene sulfonate	TRIETHANOLAMINE DODECYLBENZENE SULFONATE	27323417		1,000			
Triethoxysilane	TRIETHOXY SILANE	998301	500				
Triethylamine	TRIETHYLAMINE	121448		5,000	313		
Trifluorochloroethylene	TRIFLUOROCHLOROETHYL	79389					10,000
Trifluralin	TRIFLURALIN	1582098		1*	313		
Triforine	TRIFORINE	26644462			313		
Trimethylamine	TRIMETHYLAMINE	75503		100			10,000
Trimethylchlorosilane	TRIMETHYLCHLOROSILANE	75774	1,000		313		10,000
Trimethylolpropane phosphite	TRIMETHYLOLPROPANE PHOSPHITE	824113	100/10,000				
Trimethyltin chloride	TRIMETHYLTIN CHLORIDE	1066451	500/10,000				
Triphenyltin chloride	TRIPHENYLTIN CHLORIDE	639587	500/10,000		313		
Triphenyltin hydroxide	TRIPHENYLTIN HYDROXIDE	76879			313		
Tris(2,3-dibromopropyl) phosphate	TRIS(2,3-DIBROMOPROP)	126727		10	313	U235	
Tris(2-chloroethyl)amine	TRIS(2-CHLOROETHYL)AMINE	555771	100				
Tris(dimethylcarbamodithioato-S,S')iron	TRISDIMETHYLCARBAMODITHIOATO-S,S'IRON	14484641			X		
Trypan blue	TRYPAN BLUE	72571		10	313	U236	
Uracil mustard	URACIL MUSTARD	66751		10		U237	

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA_112R
Uranyl acetate	URANYL ACETATE	541093		100			
Uranyl nitrate	URANYL NITRATE	10102064		100			
Uranyl nitrate	URANYL NITRATE	36478769		100			
Urea, N,N-dimethyl-N'-(3-(trifluoromethyl)phenyl)-	UREADIMETHYLTRIFLUOROMETHYL(PHENYL)-	2164172			X		
Urethane	URETHANE	51796		100	313	U238	
Valinomycin	VALINOMYCIN	2001958	1,000/10,000				
Vanadium (fume or dust)	VANADIUM	7440622			313		
Vanadium pentoxide	VANADIUM PENTOXIDE	1314621	100/10,000	1,000		P120	
Vanadyl sulfate	VANADYL SULFATE	27774136		1,000			
Vikane	VIKANE	2699798			X		
Vinclozolin	VINCLOZOLIN	50471448			313		
Vinyl acetate	VINYLACETATE	108054	1,000	5,000	313		15,000
Vinyl acetate monomer	VINYLACETATE MONOMER	108054	1,000	5,000	X		15,000
Vinyl acetylene	VINYLACETYLENE	689974					10,000
Vinyl bromide	VINYLBROMIDE	593602		1*	313		
Vinyl chloride	VINYLCHLORIDE	75014		1	313	U043	10,000
Vinyl ethyl ether	VINYLETHYLETHER	109922					10,000
Vinyl fluoride	VINYLFUORIDE	75025					10,000
Vinyl methyl ether	VINYLMETHYLETHER	107255					10,000
Vinylidene chloride	VINYLIDENECHLORIDE	75354		100	313	U078	10,000
Vinylidene fluoride	VINYLIDENEFLUORIDE	75387					10,000
Warfarin	WARFARIN	81812	500/10,000	100	X	P001	
Warfarin and salts	WARFARIN AND SALTS	0			N874		
Warfarin sodium	WARFARIN SODIUM	129066	100/10,000				
Warfarin, & salts, conc. >0.3%	WARFARIN SALTS, WHEN PRESENT AT CONCENTRATIONS	81812		100	X	P001	
Xylene (mixed isomers)	XYLENEMIXEDISOMER	1330207		1,000	313	U239	
Xylenol	XYLENOL	1300716		1,000			
Xylylene dichloride	XYLYLENE DICHLORIDE	28347139	100/10,000				
Zinc	ZINC	7440666		1,000			
Zinc (fume or dust)	ZINC	7440666		1,000	313		
Zinc acetate	ZINCACETATE	557346		1,000			
Zinc ammonium chloride	ZINCAMMONIUM CHLORIDE	14639975		1,000			
Zinc ammonium chloride	ZINCAMMONIUM CHLORIDE	14639986		1,000			
Zinc ammonium chloride	ZINCAMMONIUM CHLORIDE	52628258		1,000			
Zinc borate	ZINCBORATE	1332076		1,000			
Zinc bromide	ZINCBROMIDE	7699458		1,000			
Zinc carbonate	ZINCCARBONATE	3486359		1,000			
Zinc chloride	ZINCCHLORIDE	7646857		1,000			
Zinc Compounds	ZINCCOMPOUNDS	0		**	N982		
Zinc cyanide	ZINCCYANIDE	557211		10		P121	
Zinc fluoride	ZINCFUORIDE	7783495		1,000			
Zinc formate	ZINCFORMATE	557415		1,000			
Zinc hydrosulfite	ZINCHYDROSULFITE	7779864		1,000			
Zinc nitrate	ZINCNITRATE	7779886		1,000			
Zinc phenol sulfonate	ZINCPHENOLSULFONATE	127822		5,000			
Zinc phosphide	ZINCPHOSPHIDE	1314847	500	100		P122	

Consolidated List of Chemicals (Cont.)

NAME	NAME INDEX	CAS	TPQ	RQ	S313	RCRACODE	CAA 112R
Zinc phosphide (conc. <= 10%)	ZINCPHOSPHIDE	1314847	500	100		U249	
Zinc phosphide (conc. > 10%)	ZINCPHOSPHIDE	1314847	500	100		P122	
Zinc silicofluoride	ZINCSILICOFLUORIDE	16871719		5,000			
Zinc sulfate	ZINCSULFATE	7733020		1,000			
Zinc, dichloro(4,4-dimethyl-5((((methylamino)carbonyloxy)imino)pentanenitrile)-, (T-4)-	ZINCDICHLORO(4,4-DIMETHYL-5((((METHYLAMINO) CARB	58270089	100/10,000				
Zineb	ZINEB	12122677			313		
Zirconium nitrate	ZIRCONIUMNITRATE	13746899		5,000			
Zirconium potassium fluoride	ZIRCONIUMPOTASSIUM FLUORIDE	16923958		1,000			
Zirconium sulfate	ZIRCONIUMSULFATE	14644612		5,000			
Zirconium tetrachloride	ZIRCONIUMTETRACHLORIDE	10026116		5,000			

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

TAB E TO APPENDIX 1 TO ANNEX H TO AFDTC PLAN 32-6
SECTION 304 REPORTING FORM

REFERENCES: See Basic Plan

GENERAL: The following Section 304 Reporting Form lists information that will be needed when reporting a release over the telephone.

**THIS FORM PROVIDES GUIDANCE FOR INTIAL NOTIFICATION
EMERGENCY PLANNING COMMUNITY RIGHT-TO KNOW ACT
SECTION 304 REPORTING FORM
Reporting Number (850) 413-9911**

1. General Information: SARA LOG No: _____
A. Time: _____, Date: _____
B. Name (POC): _____, Company: _____
C. Location of release: _____
D. Telephone Number: _____
2. Release Information:
A. Substance (s) Involved: _____
B. Release Medium: Air _____, Water _____, Land _____ (surface/ground)
C. Event Terminated: Yes _____, No _____
D. Quantity Released: _____
E. EHS Release: Yes _____, No _____, CERCLA Release: Yes _____, No _____
3. Is this a Reportable Incident/Emergency under section 304? Yes _____, No _____
4. Incident Description: _____

5. Action Taken to Respond or Contain: _____

6. Potential Health Risk (if known or anticipated):

A. Off-Site: _____

B. Injuries Release Rated: _____ Number: _____
Non-Release Rated: _____ Number: _____

7. Recommended Protective Actions (where appropriate, advise regarding attention necessary for exposed individuals): _____

8. Agencies Notified by industry:

A. County E. M.	_____	D. State DER	_____
B. Local F. D.	_____	E. State DER	_____
C. Local Environmental:	_____	F. Other	_____

9. Emergency Assistance Requested: Yes _____, No _____

A. Local F.D.	_____	E. Local Health	_____
B. County E.M.	_____	F. State DNR	_____
C. Local Environmental:	_____	G. State DER	_____
D. Local Law Enf.	_____	H. Other	_____

10. Should More Than 15 Minutes Difference Exist Between Release Beginning Time
(_____) and reporting time (_____). Explain Reason for Not Immediately
Reporting The Incident: _____

11. Message Received By: Name _____ Time _____ Date _____

THIS DOES NOT FULFILL THE REQUIREMENTS FOR A FOLLOW-UP REPORT

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

TAB F TO APPENDIX 1 TO ANNEX H TO AFDTC PLAN 32-6
SARA TITLE III SITE SPECIFIC SPILL PLANS

REFERENCES: See Basic Plan

GENERAL: The following site specific spill plans are to be referred to when a release of an extremely hazardous substance has been or potentially may migrate from the installation boundaries or could possibly affect human health or the environment on base.

Exhibits:

- 3-Assumptions and Planning Factors (SARA Title III)**
- 4-Site Specific Spill Plan - Hydrazine Storage Facility
(Bldg 138)**
- 5-Site Specific Spill Plan - Base Chlorinated Waterwells
(Treatment Plants and Swimming Pools)**
- 6-Site Specific Plan - Compressed Ammonia (Bldg 954)**
- 7-Site Specific Plan - Underground Storage Tanks (UST)
(Contents and Quantities of Storage Tanks)**

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

EXHIBIT 1 TO TAB F TO APPENDIX 1 TO ANNEX H TO AFDTC PLAN 32-6
ASSUMPTIONS/PLANNING FACTORS (SARA Title III)

1. ASSUMPTIONS:

a. This plan will be implemented when a release of an Extremely Hazardous Substance (EHS) has occurred and threatens to leave Eglin AFB boundaries or when public health and well being could be threatened. Rapid communications must be utilized to inform responsible officials in order to obtain fast, appropriate response.

b. All initial spill response actions and OSC duties will be synonymous with those previously outlined in this plan.

c. Eglin emergency personnel will respond to incidents in their normal response roles. If assistance is required from local, state and federal jurisdictions, trained and equipped personnel will be available from agencies listed within this text.

d. Many assumptions were made in the calculations for the Vulnerability Zone; even though worst case scenarios were used, no safe levels for exposure of these EHS chemicals have been established for the general population. Therefore, it is inappropriate to assume that areas outside the established zones, based solely on these estimates, are completely safe.

e. Response personnel are aware of detailed drawings/maps located in Building 666, Civil Engineer Drafting Office. Maps will be utilized should specific information regarding base utilities, storm drainage systems, or electrical systems be required by response personnel. Enclosure 1 to this exhibit contains a general map of sites throughout the Eglin AFB area. More detailed maps are provided for specific buildings after each site specific spill plan.

2. PLANNING FACTORS:

a. In calculating evacuation radius the following conditions were assumed: Urban, D atmospheric stability, 11.9 mph wind speed, distances are given in miles.

b. A worst case scenario was used for chemical quantities being stored at each facility (i.e., when 55-gallon drums were being stored, all were considered in a release scenario).

3. CONDITIONS FOR EXECUTION: This plan is in effect continuously, and is implemented whenever a spill of an EHS occurs at Eglin AFB and the EGLIN AFB OSC activates this plan.

Enclosures:

1-Map of General Sites at Eglin AFB



TITLE EGLIN AFB - GENERAL SITE MAP

LEGEND

ROADS	RAILROADS	WATERWAYS	STREETS
...

Oil and Hazardous Substance
Pollution and Contingency Plan

1:500 1:250 1:125

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

EXHIBIT 2 TO TAB F TO APPENDIX 1 TO ANNEX H TO AFDTC PLAN 32-6
SITE SPECIFIC SPILL PLAN - HYDRAZINE STORAGE FACILITY (BLDG 138)

1. NOTIFICATION AND INITIAL SPILL RESPONSE: In the event of a spill the following actions should be taken. The order of the actions will depend on the existing conditions:

- a. Activate emergency alarms
- b. Shut down operations and secure equipment
- c. Evacuate the area
- d. Immediately notify the Eglin Security Forces by dialing 911.
- e. Contain the spill, if it can be done in a safe manner. Properly trained personnel and personal protective equipment are available. No spill cleanup should be attempted until personnel conducting the cleanup have put on the required personal protective equipment (protective clothing, self contained breathing apparatus, protective boots, gloves and face shields are located in the hydrazine facility).
- f. Make spill scene off limits to unauthorized personnel.
- g. Report to the OSC upon Hydrazine Response Team (HRT) arrival and provide assistance until the response team is fully operational.
- h. Make sure an employee roll call is conducted to discover whether any personnel are trapped in the affected area.

2. SPECIAL PRECAUTIONARY MEASURES:

- a. Proper personal protective equipment (protective clothing, self contained breathing apparatus, protective boots, gloves and face shields) shall be worn in accordance with 29 CFR 1910.120 when handling hazardous materials.
- b. Refer to Material Safety Data Sheet (MSDS) for particular hazards and precautionary measures for specific chemical materials.
- c. Prior to transferring a 55-gallon hydrazine container from the 96th Supply Squadron into Building 138 Hydrazine Servicing Facility, place drain mats over the two storm drains located northwest of Building 138.
- d. Notify Maintenance Operations Control Center (MOCC) at 882-4691, and the Environmental Compliance Division AFDTC/EMC at 882-6282 prior to transfer of hydrazine outside of Building 138.

3. PROBABLE SPILL ROUTE:

a. Spills from the 55 gallon containers located in this Building 138 would enter floor drain located within the concrete diked area in the building. This drain is tied into a 1,000 gallon underground storage tank located outside the facility.

b. Spills outside of Building 138 Hydrazine Servicing Facility, during transfer of 55 gallon hydrazine containers from the 96 Supply Squadron into Building 138, would run into two storm drains located northwest of Building 138.

4. EVACUATION PLAN: The signal to begin evacuation will be by voice command as initiated by the person discovering the spill or appropriate supervisor.

5. CONTAINMENT AND COUNTERMEASURES:

a. The following information and guidance is provided for cleaning up hydrazine spills.

(1) No spill cleanup should be attempted until the personnel conducting the cleanup have put on personal protective clothing/equipment including positive pressure breathing apparatus and other items listed in paragraph 1e.

(2) The procedures outlined in this document are appropriate for accidental spills of hydrazine on the flightline ramp, hangar area, or servicing area such as might occur with broken H-70 tank fittings or leaking fuel line.

(3) The general idea is to mop up as much of the hydrazine as possible, neutralize any remaining damp spots with a 5% chlorine and water solution and flush the area with water. In those locations where drainage systems have been designed to include a holding sump (Bldg 138), immediately flush a spill with water into the holding sump for subsequent neutralization treatment.

(4) All personnel not essential to the cleanup operation or lacking protective equipment should be removed from the area to avoid breathing hydrazine vapors. Care must also be exercised to avoid contact with the skin since hydrazine is readily absorbed through the skin surface.

(5) Until it has been neutralized, all possible care must be taken to avoid releases of hydrazine to the environment. Hydrazine is toxic [at three parts per million (3ppm) level] to aquatic life.

b. The following materials will be required for accomplishing cleanup and neutralization of H-70 spills:

(1) White Cotton Rags. At least three cubic yards of the cotton rags should always be stored in the hydrazine response trailer and an additional two cubic yards stored in the hydrazine storage facility. The rags should be protected from moisture and other contaminated substances by being sealed in plastic bags.

(2) In the event that the recommended polypropylene felt material is not available, alternative materials may be used. For containing the spill and mopping up, large pieces of clean, white cotton cloth may be used. Also a clean cotton mop with wooden handle may be used.

(3) Sodium hypochlorite solution, 5 percent (household bleach). This may be used to neutralize concrete surfaces contaminated with hydrazine or to neutralize dilute water solutions of hydrazine mopped up after a spill.

(4) Orthotolidine solution (NSN 6810-00-270-8289) for measuring chlorine residual.

(5) Large container. This should be large enough to hold the entire contents of an H-70 tank/drum with room for a three fold dilution. The container should have handles and be sturdy enough to transport while nearly full of water solution. Material should be compatible with hydrazine (polypropylene, polyethylene, stainless steel).

(6) Field Kit. To insure availability of materials when personnel encounter hydrazine spills, a field kit should be assembled, prepackaged, and located where deemed appropriate by local managers.

(7) pH paper which will indicate the potential presence of hydrazine by measuring higher than neutral levels.

c. The following procedure will be used with spills of H-70 on concrete surfaces:

(1) Clear area of all personnel except cleanup team and summon the HRT. If inside Building 138, immediately open all doors and ventilate the area and suspend all operations immediately downwind. If outside, suspend all operations immediately downwind of the spill. Following the completion of all spill cleanup procedures, the area will be cleared for re-entry by the on-scene commander as advised by Bioenvironmental personnel.

(2) Fuming and fire hazard may be reduced by covering the area with a damp cloth, periodically adding minimal amounts of water to maintain dampness. The amount of water to add here is up to the OSC. If a cloth of sufficient size to cover the spill area is not available, a volume of water equivalent to the volume of H-70 spilled would be sufficient to reduce fuming significantly and render the fuel non-flammable. However, avoid adding too much water as this would increase the area of the spill making cleanup more difficult and the likelihood of environmental contamination greater.

(3) Mop up as much of the spilled fuel as possible. Carefully place the pieces of felt in the large waste container partially filled with water. The volume of fluid in the container should be about 10 gallons or enough to cover the fuel soaked pieces of felt. The pieces of felt may be squeezed out over the container and placed down again to absorb more spilled fuel.

(4) The damp area on the concrete must now be treated by adding small amounts of bleach. When excess chlorine can be detected on the spill area using orthotolidine reagent, the spill can be considered neutralized. **CAUTION: SOLID HTH SHOULD NEVER BE ADDED TO UNDILUTED HYDRAZINE SINCE A FIRE COULD RESULT!**

(5) For gas clouds of Hydrazine, vapors should be combated with water spray. The resultant mist may be corrosive and personal protective equipment should be used. Resultant runoff is hazardous to aquatic life at a concentration of three parts per million (3 ppm).

HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

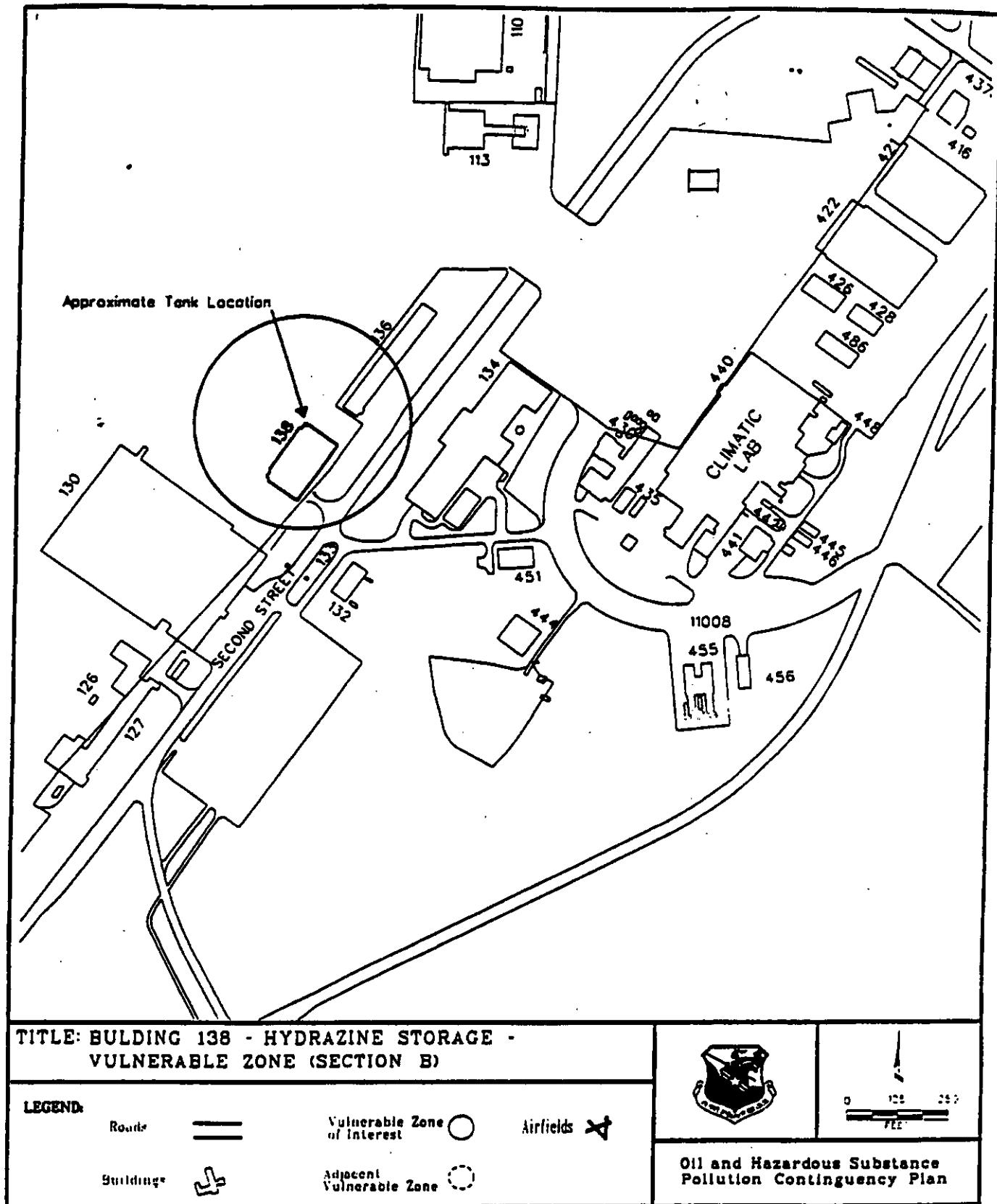
- a. Chemical: Hydrazine
- b. Location: Building 138
Map Section B.
- c. Quantity: 950 Pounds
325 Pounds on hand for stand-by.
- d. Properties: Class IIIA Liquid. Highly flammable and toxic liquid. Hydrazine is poisonous, very toxic by ingestion, inhalation and skin absorption (acute and chronic).

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 950 pounds of Hydrazine from Building 138 could result in an area of radius greater than 0.1 mile where Hydrazine vapors exceed the Level of Concern.
- b. Population within Vulnerable Zone: Less than 50.
- c. Essential services within Vulnerability Zone: None

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium due to nature of servicing provided in the facility and past experience indicating no spills occurring at the facility.
- b. Consequences if People are Exposed: Over exposure to vapors can immediately irritate nose and throat. Burning and swelling of the eyes (possible temporary blindness if exposure is severe) and dermatitis are also possible. Possibility of pulmonary edema (water in lungs). Suspected cancer causing agent.
- c. Consequences for Property: Extensive if Hydrazine caused fire or explosion. Vapor is flammable and a severe explosive hazard with oxidizers or upon heating.
- d. Consequences of Environmental Exposure: Damage to flora and fauna. Highly toxic to aquatic life.
- e. Probability of Simultaneous Emergencies: Medium, due to the close proximity of the facility to a facility that deals with liquid oxygen.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium



HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

EXHIBIT 3 TO TAB F TO APPENDIX 1 TO ANNEX H TO AFDTCT PLAN 32-6
SITE SPECIFIC SPILL PLAN - BASE CHLORINATED WATER WELLS (TREATMENT PLANTS AND SWIMMING POOLS)

1. NOTIFICATION AND INITIAL SPILL RESPONSE: In the event of a spill of chlorine gas from any of the base water wells, the following actions should be taken:

- a. Activate nearest emergency alarm
- b. Evacuate the area as required
- c. Immediately contact the 96 SFS by dialing 911 and give your name, the type of chemical spilled, the location of the spill, and the estimated quantity spilled.
- d. Make spill scene off limits to unauthorized personnel.
- e. Report to OSC and provide assistance as needed until the HAZMAT team is fully operational.

2. SPECIAL PRECAUTIONARY MEASURES:

- a. Proper personal protective equipment (protective clothing, self contained breathing apparatus, protective boots, gloves and face shields) shall be worn in accordance with 29 CFR 1910.120 when handling hazardous materials.
- b. Refer to Material Safety Data Sheets for particular hazards and precautionary measures for specific chemical material or POL products.

3. PROBABLE SPILL ROUTE: Spills or releases of chlorine will enter the air as liquids or vapor emission. Some being heavier than air, vapors will travel in the direction of the prevailing wind and/or settle in low lying areas. Caution should be taken, "check MSDS for specific quantities".

4. EVACUATION PLAN: The signal to begin evacuation shall be by voice command as initiated by the person discovering the spill or the appropriate supervisor.

5. CONTAINMENT AND COUNTERMEASURES: The following information is provided as guidance for responding to a chlorine gas release:

- a. Protective equipment needed by all personnel being exposed to releases of any nature should refer to MSDS for proper protective equipment.
- b. Other equipment needs include: Equipment to repair leaks (chlorine A kit) plugging and/or patching devices; sampling and monitoring devices; gas tube samplers and/or photoionization detectors for air and colorimetric kits for water; and ammonia solution in a spray bottle to be used to indicate the presence of chlorine vapors/leaks. Note: If chlorine vapors are present, a mist

will form a green cloud. Neutralizing materials: fly ash cement powder, activated carbon, soda ash, and caustic soda.

c: Air emissions should be combated with water mist and runoff contained and analyzed. For cylinders, patching and plugging should be one of the first procedures initiated when possible.

AND SWIMMING POOLS

The information and procedures outlined in the following documentation shall apply to the following facilities at Eglin AFB:

<u>Water Well</u>	<u>Bldg #</u>	<u>Location</u>
1	859	Near old base Laundry
2	84	Next to PMEL Lab
3	31	Fire Station
4	303	Security Police HQ
5	616	Credit Union
6	62	Photo Lab
65	1216	Ammo Area
7	2590	Eglin Blvd Gas Station
8	2594	May Circle
9	000	Chinquapin and Memorial Tr
10	10941	Hatchee Road
11	2443	Foster Dr/Bens Lake
12	2829	Hospital
13	2985	Bens Lake Yacht Club
14	1308	TAC Road
15	1320	TAC Area next to tower
16	2755	End of Ash Drive

WASTEWATER TREATMENT FACILITIES

<u>Bldg #</u>	<u>Facility</u>
2113	Plew Treatment Plant
1389	Main Base Treatment Plant
3043	Duke Field Treatment Plant

BASE SWIMMING POOLS

813	Main Base Swimming Pool (East Pool)
10,996	Officers Swimming Pool (West Pool)

HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

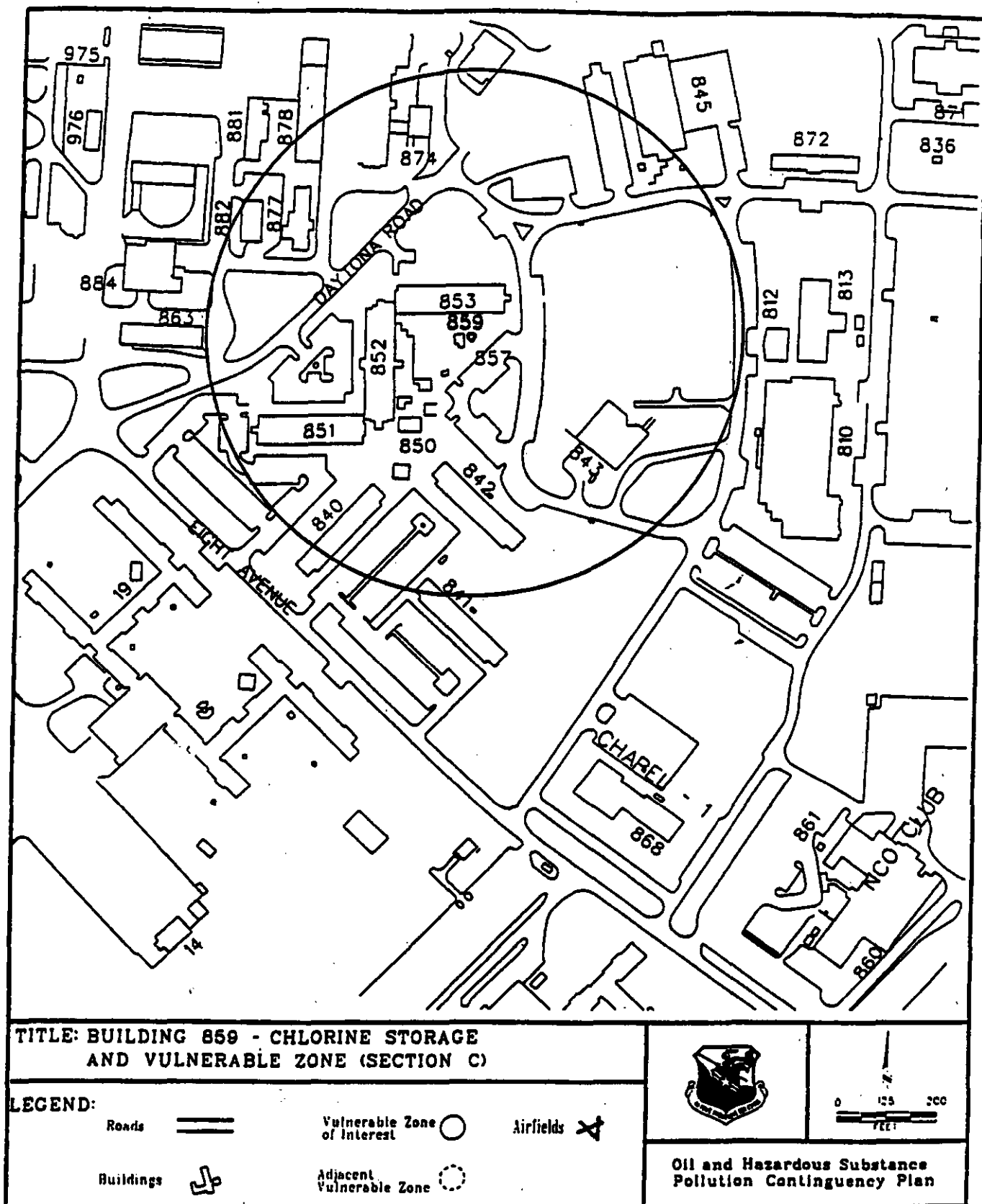
- a. Chemical: Chlorine.
- b. Location: Building 859, WW No. 1
Map Section C.
- c. Quantity In use: 2 bottles @ 150 pound/bottle = 300 pounds.
Stand-by: 8 bottles.
Total available: 10 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contact may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 859 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: Greater than 500.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium, due to the heavy traffic within the zone.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

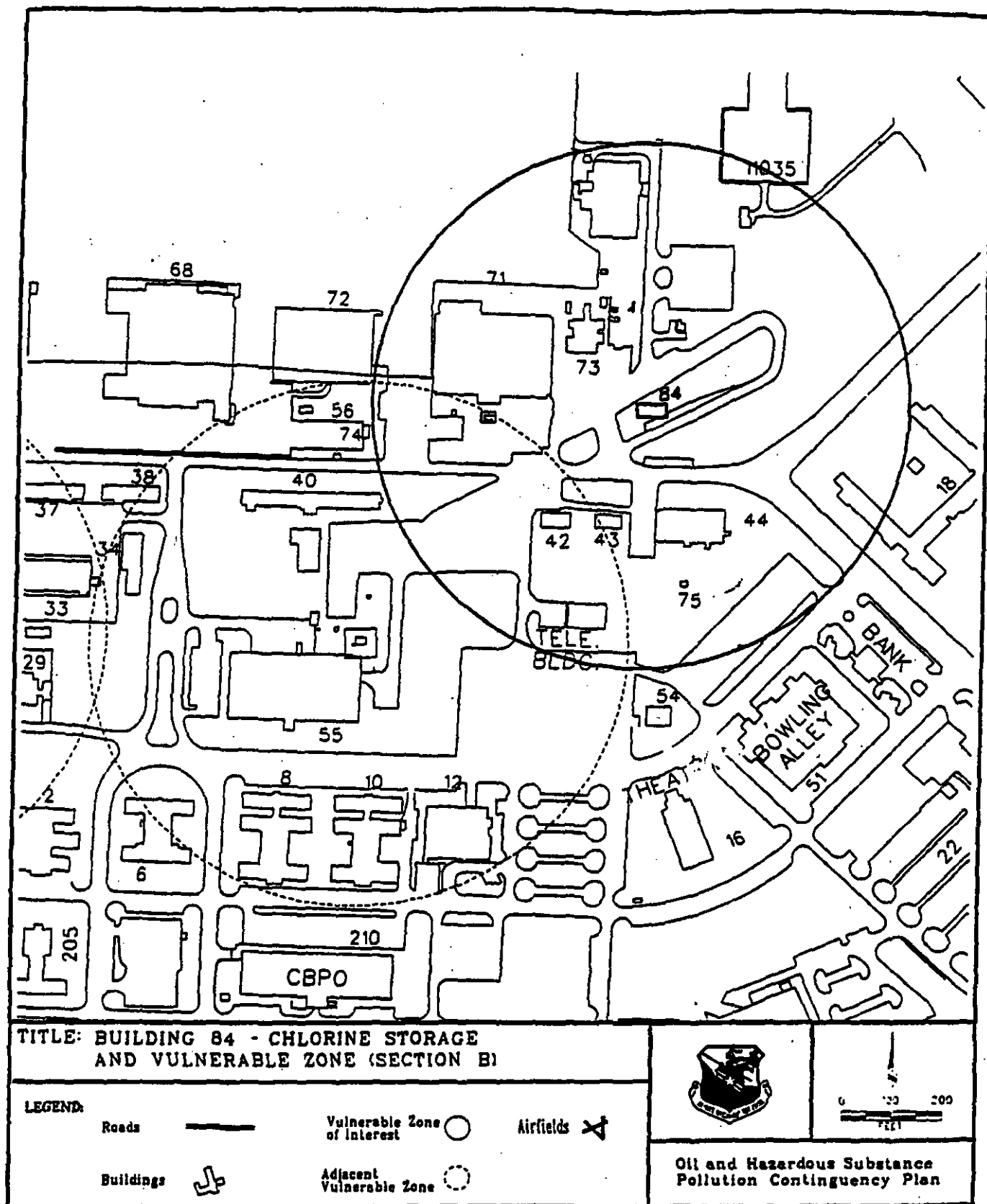
- a. Chemical: Chlorine.
- b. Location: Building 84, WW No. 2
Map Section B.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 6 bottles.
Total available: 7 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 84 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: Less than 500.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium, due to traffic in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

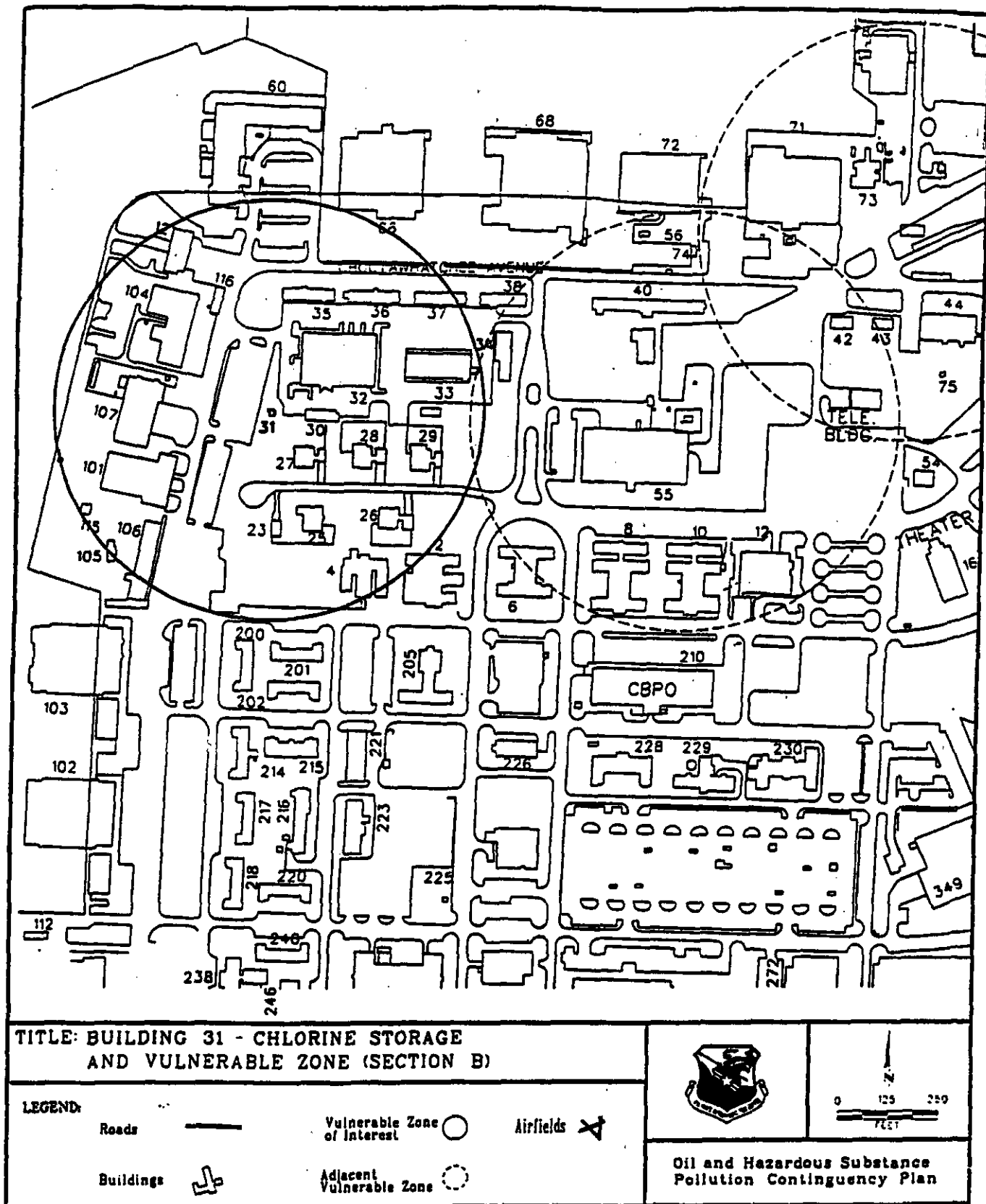
- a. Chemical: Chlorine.
- b. Location: Building 31 WW No. 3
Map Section B.
- c. Quantity In use 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 5 bottles.
Total available: 6 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 31 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: greater than 1,000.
- c. Essential services within Vulnerability Zone: none.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium to high due to heavy traffic in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

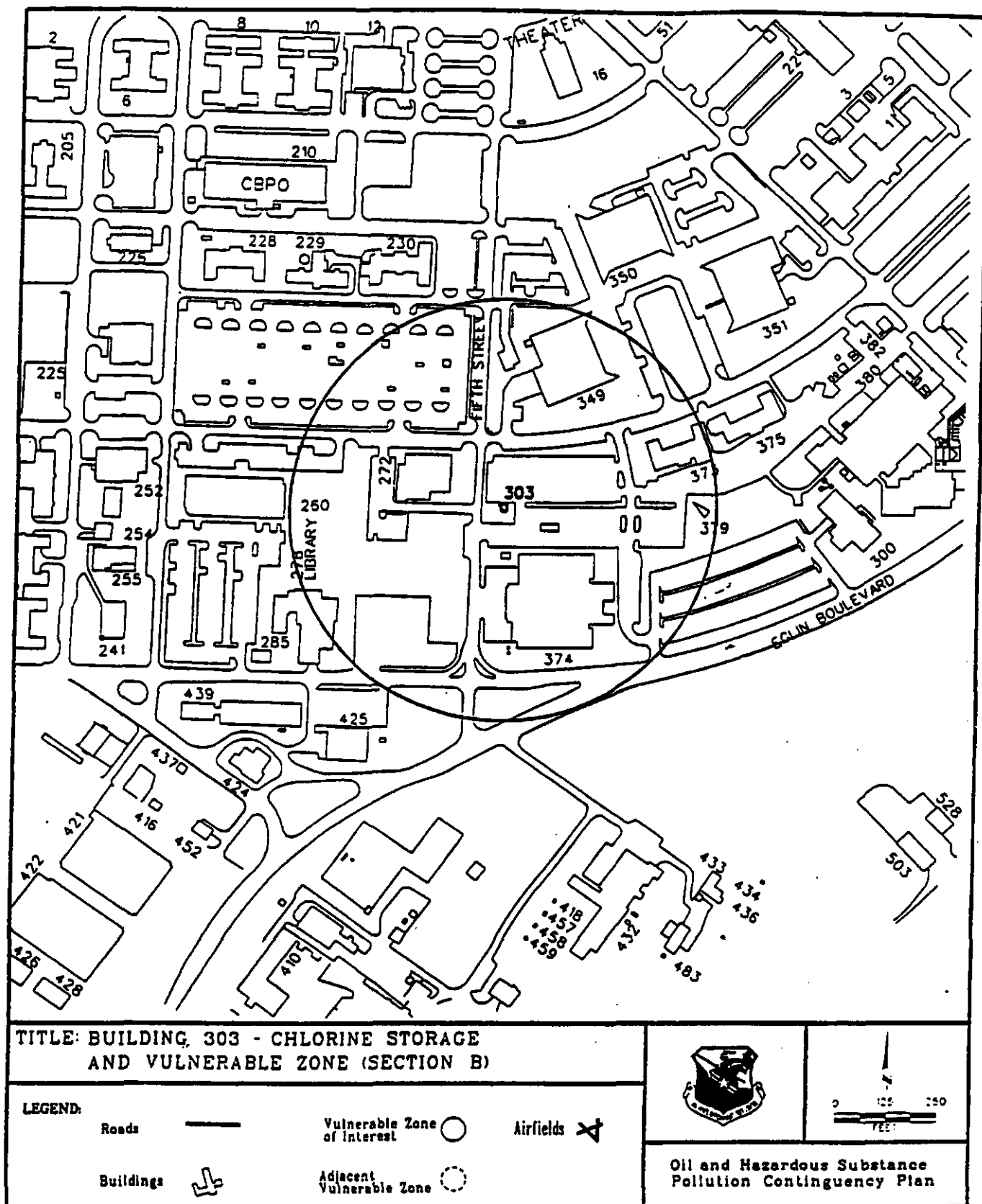
- a. Chemical: Chlorine.
- b. Location: Building 303, WW No. 4
Map Section B.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 5 bottles.
Total available: 6 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 303 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: greater than 1,000.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium, due to traffic in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

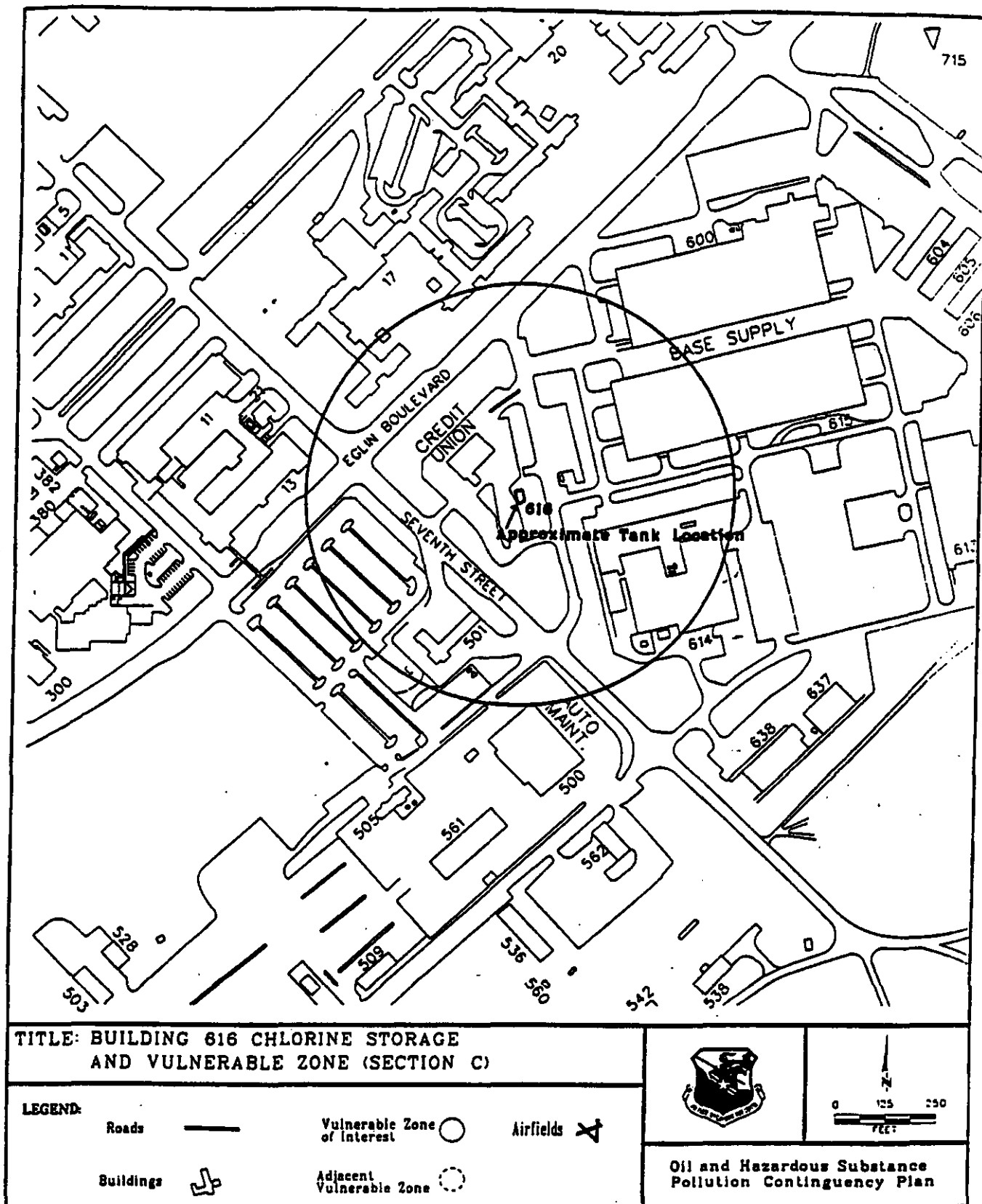
- a. Chemical: Chlorine.
- b. Location: Building 616, WW No. 5
Map Section C.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 2 bottles.
Total available: 3 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 616 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: greater than 1,000.
- c. Essential services within Vulnerability Zone: Credit Union, Base Supply Building.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: High due to heavy traffic and other hazardous materials located in the zone.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

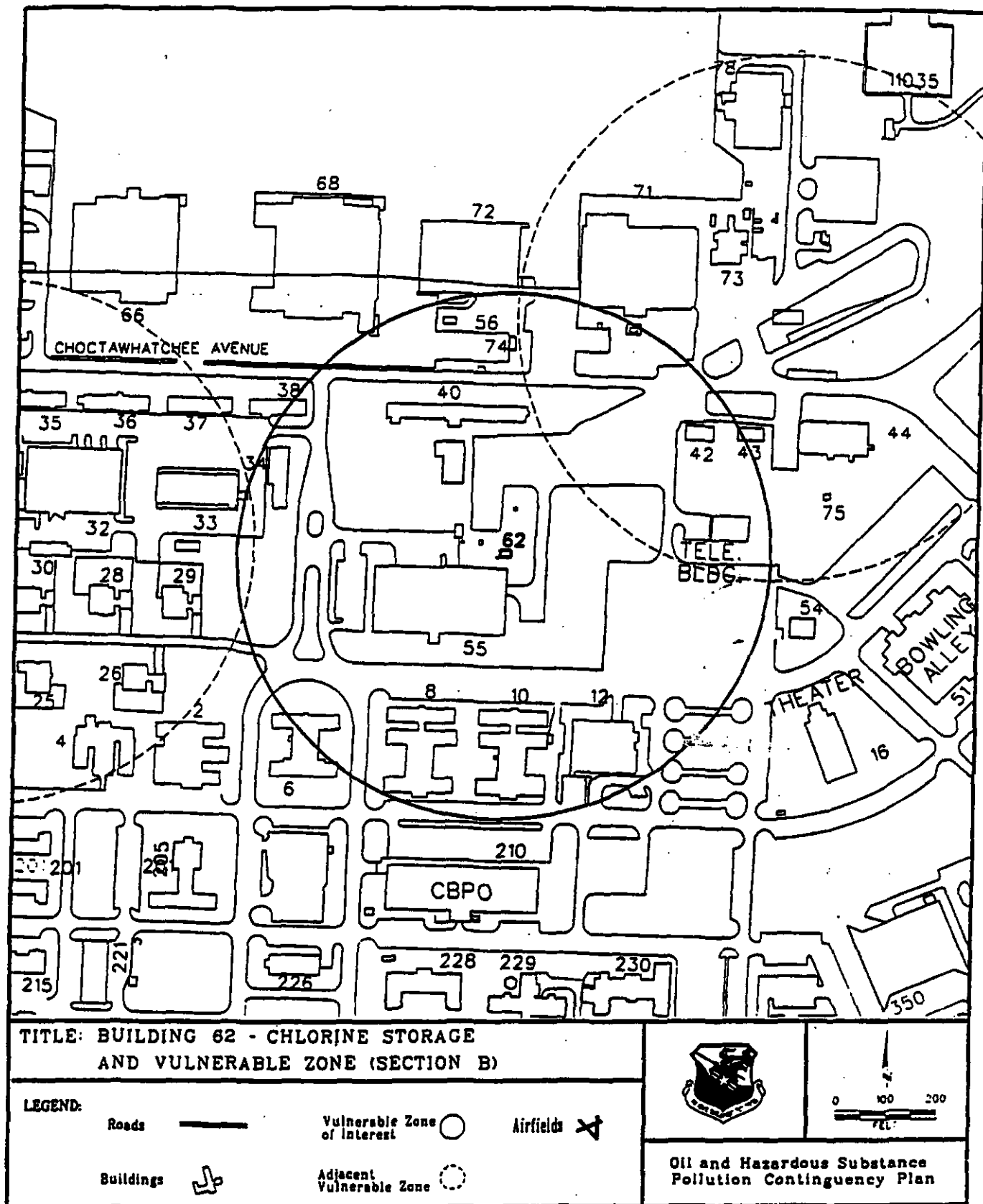
- a. Chemical: Chlorine.
- b. Location: Building 62, WW No. 6
Map Section B.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 62 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 500.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium, due to traffic in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

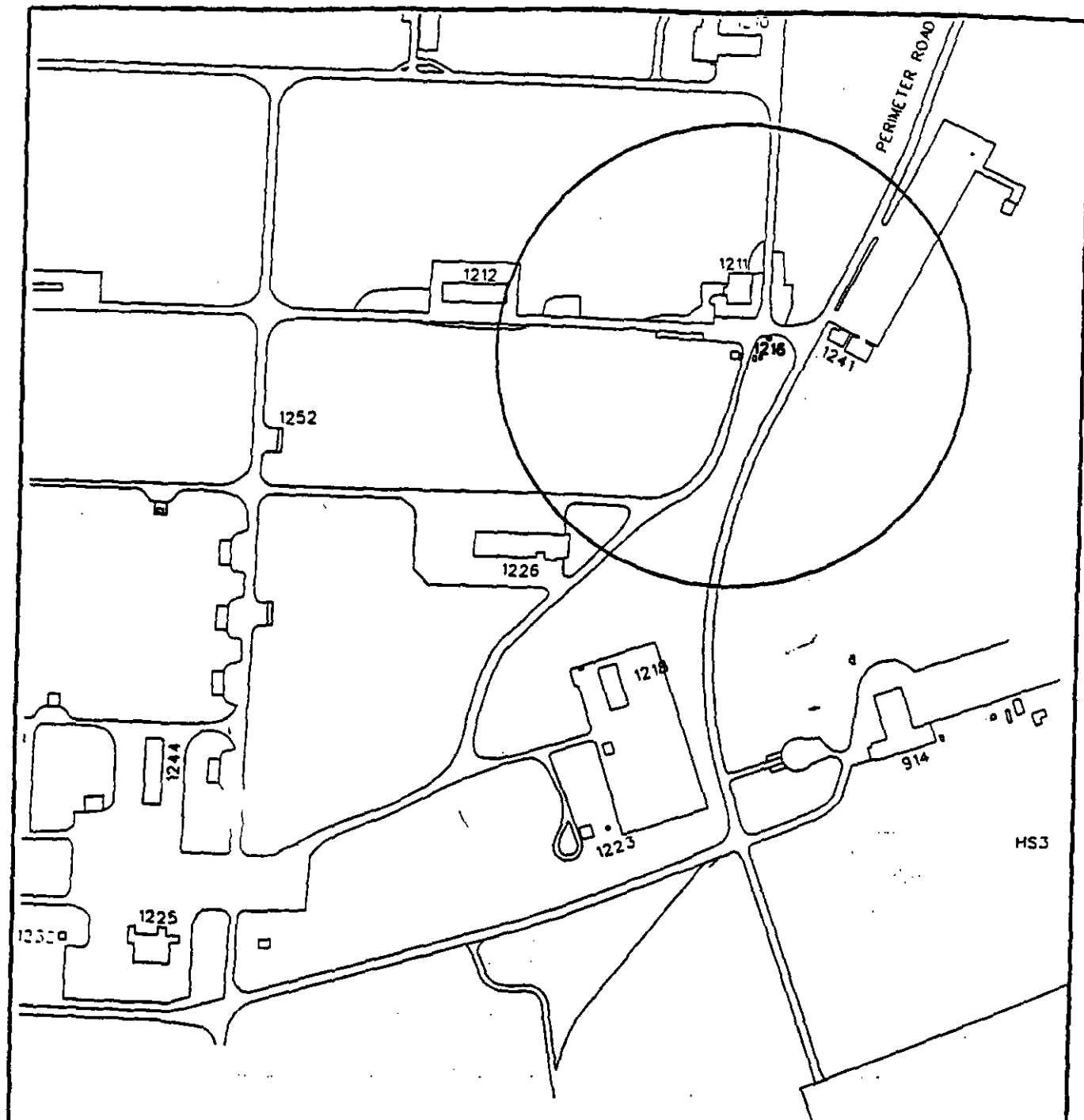
- a. Chemical: Chlorine.
- b. Location: Building 1216 WW No. 65
Map Section B.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 7 bottles.
Total available: 8 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 1216 could result in an area of radius of greater than .1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 100.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: low.
- f. Summary of Likelihood/Severity of Occurrence: Medium/low.



**TITLE: BUILDING 1216 - CHLORINE STORAGE
AND VULNERABLE ZONE (SECTION B)**

LEGEND:

Roads



Vulnerable Zone
of Interest



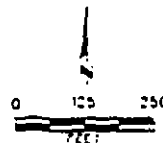
Airfields



Buildings



Adjacent
Vulnerable Zone



**Oil and Hazardous Substance
Pollution Contingency Plan**

HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

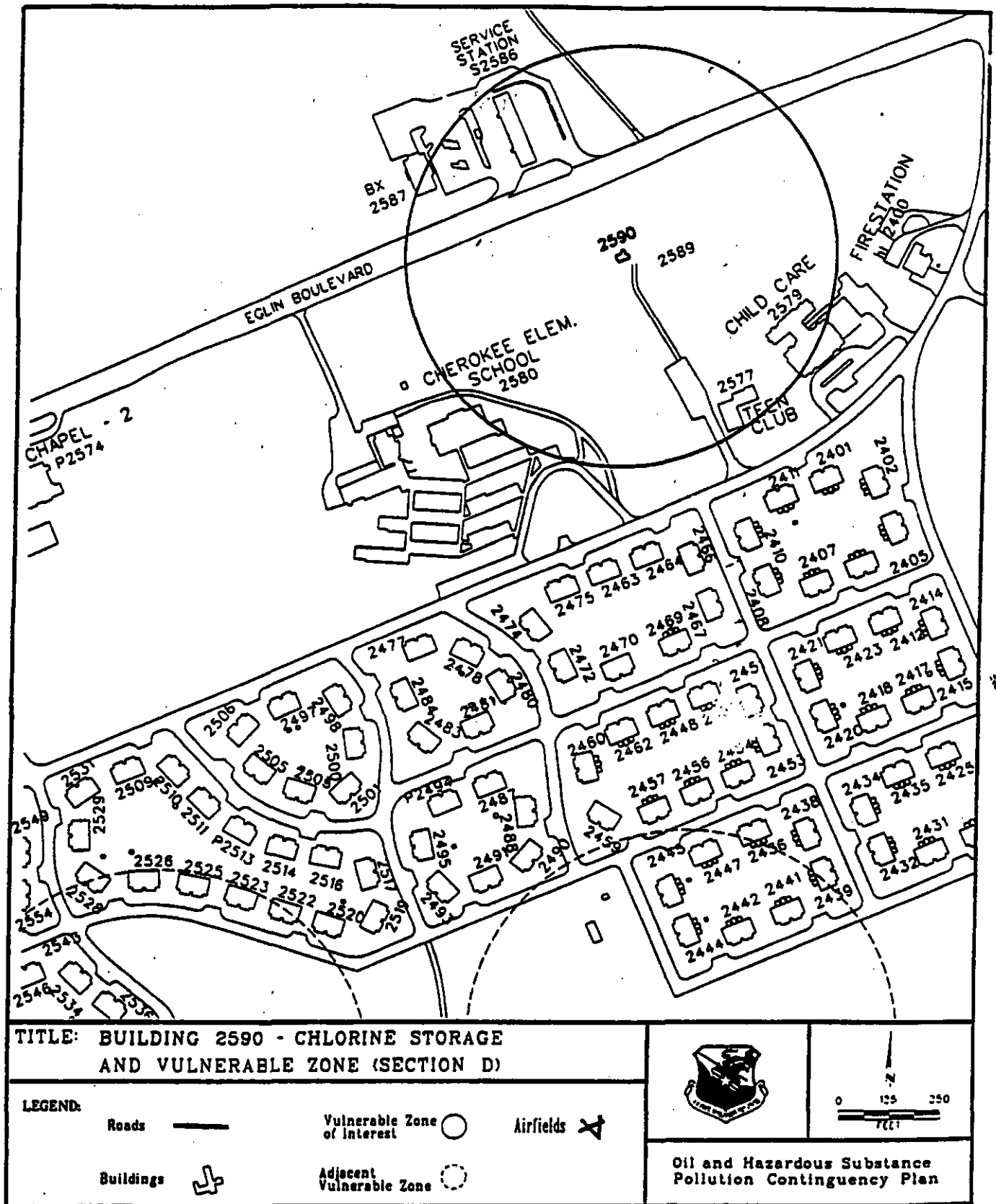
- a. Chemical: Chlorine.
- b. Location: Building 2590, WW No. 7.
Map Section D.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 2590 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: greater than 500.
- c. Essential services within Vulnerability Zone: Tank and Tote West, Cherokee Elementary School, Child Care Facility, Fire Station (2400).

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: High due to services and traffic in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/High.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

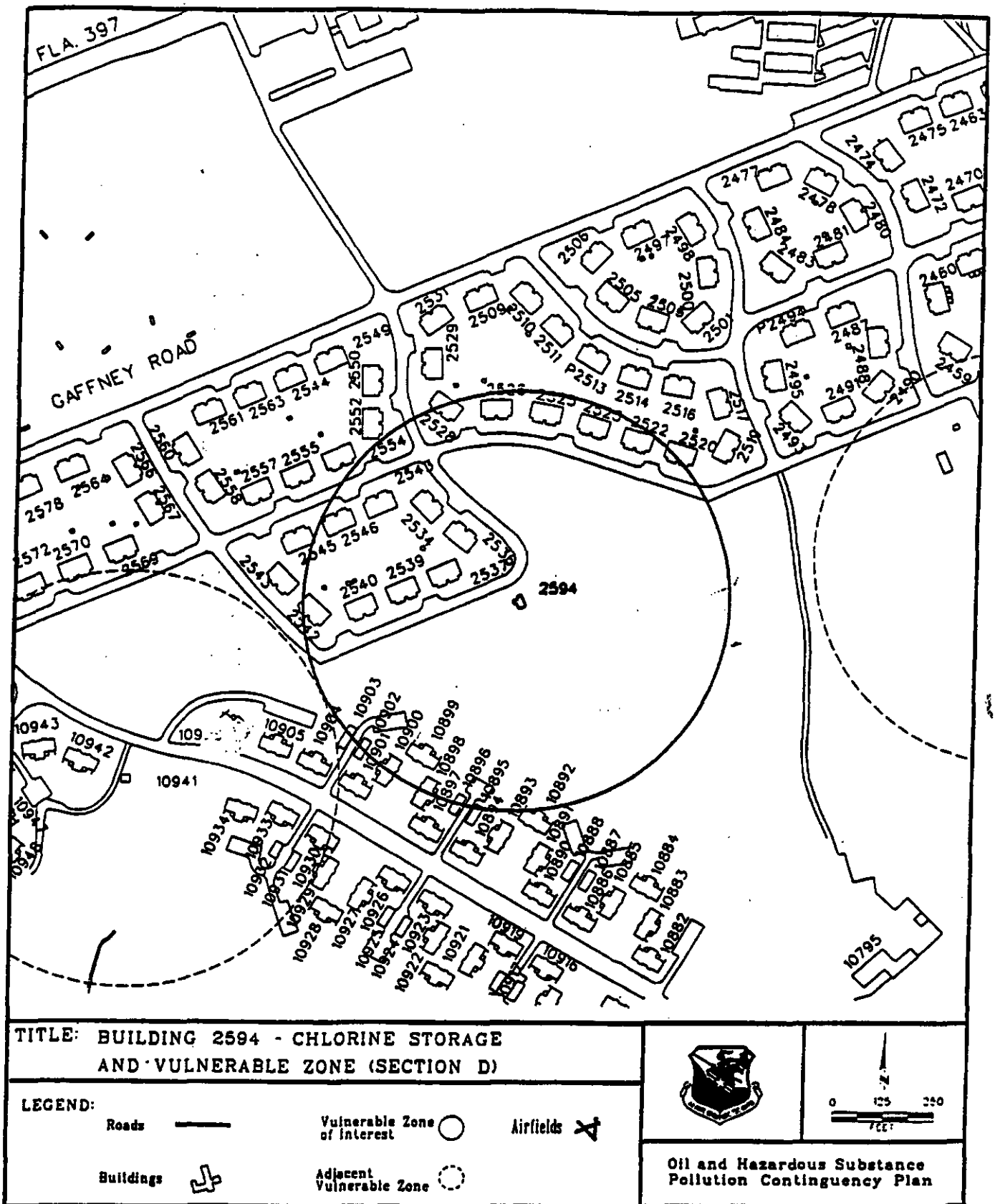
- a. Chemical: Chlorine.
- b. Location: Building 2594, WW No. 8
Map Section D.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 2594 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 100.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Low.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

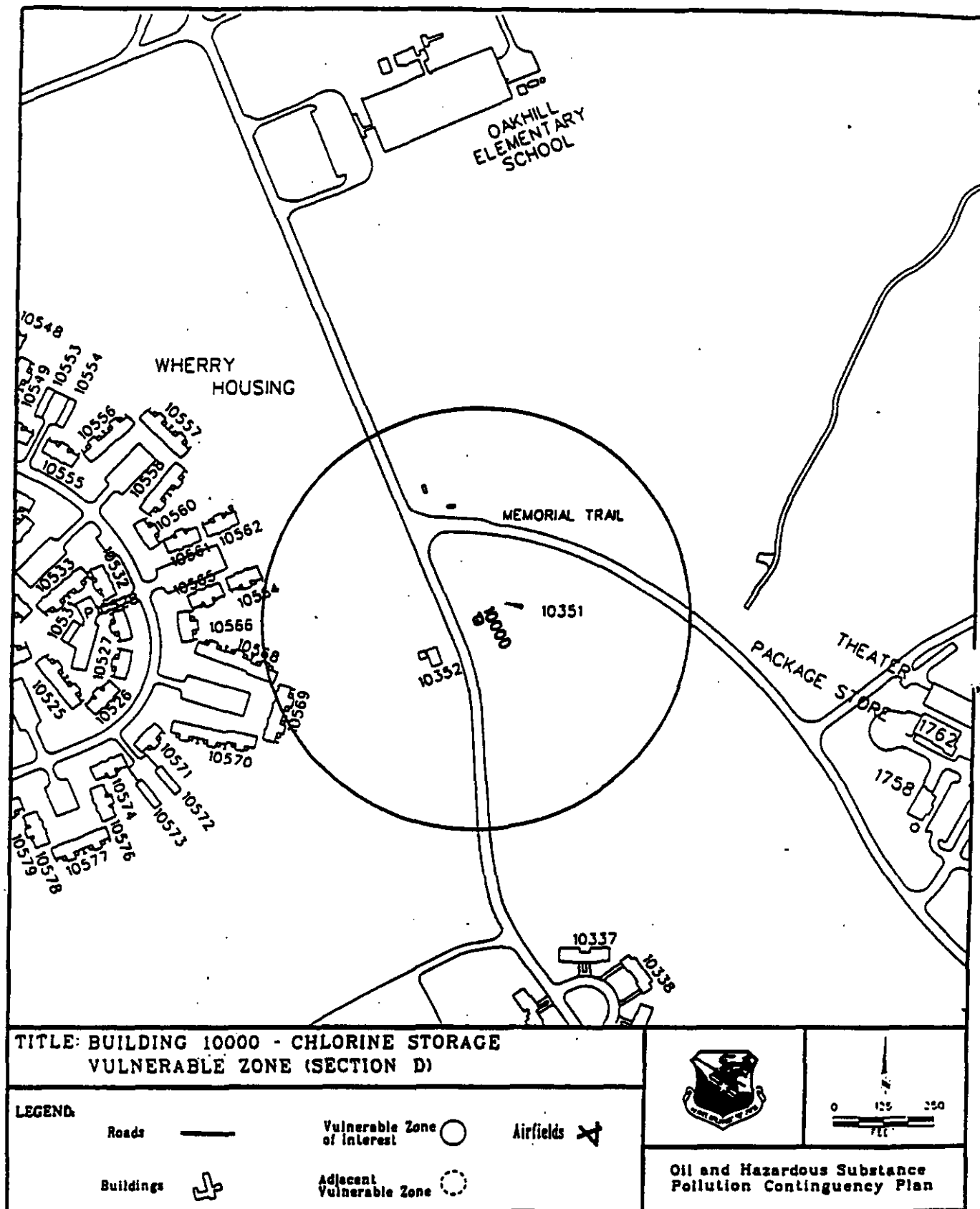
- a. Chemical: Chlorine.
- b. Location: Building 10,000, WW No. 9
Map Section D.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 10,000 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 20.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: low.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

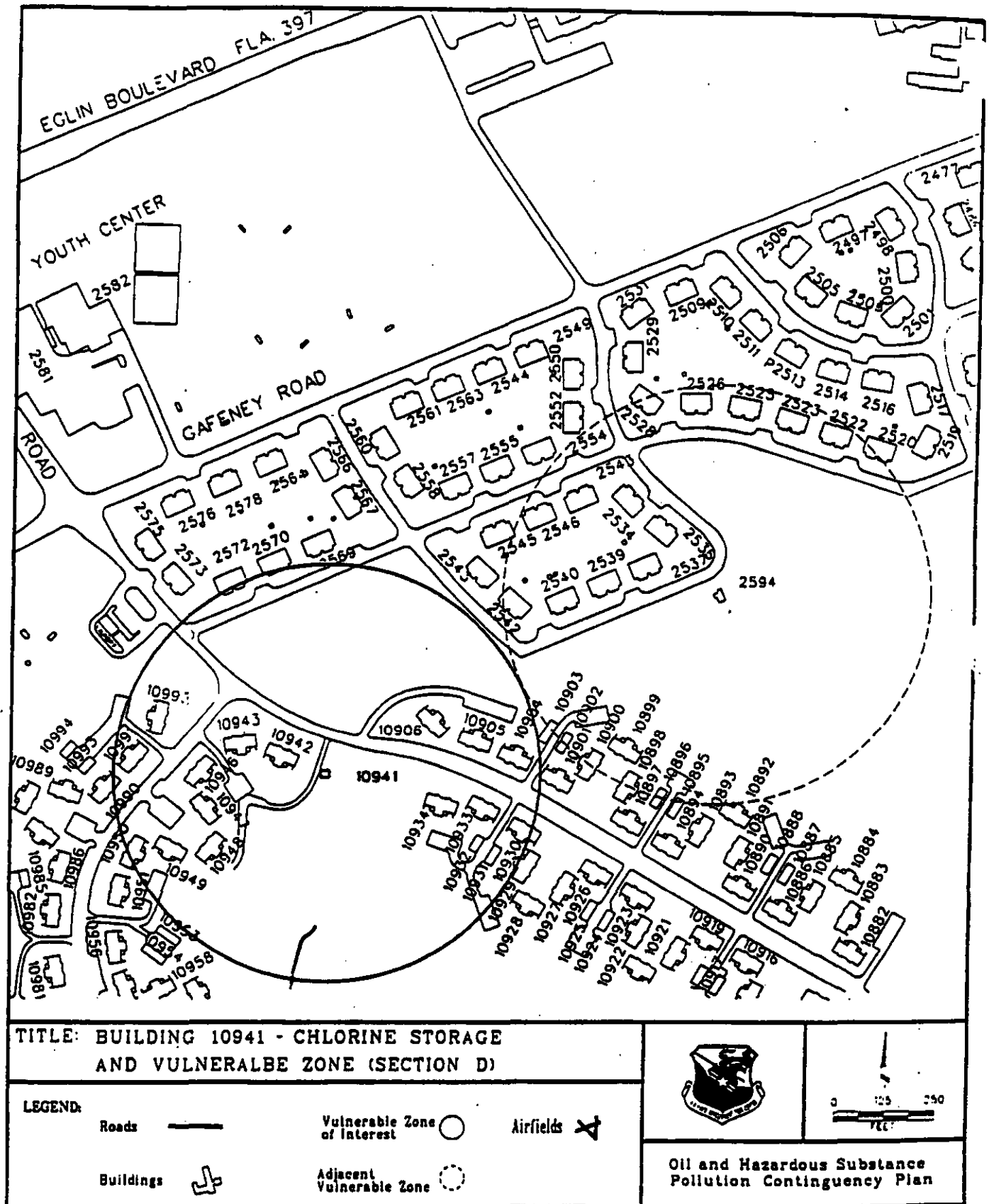
- a. Chemical: Chlorine.
- b. Location: Building 10,941, WW No. 10
Map Section D.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 10,941 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the levels of concern.
- b. Population within Vulnerable Zone: less than 100.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: low.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

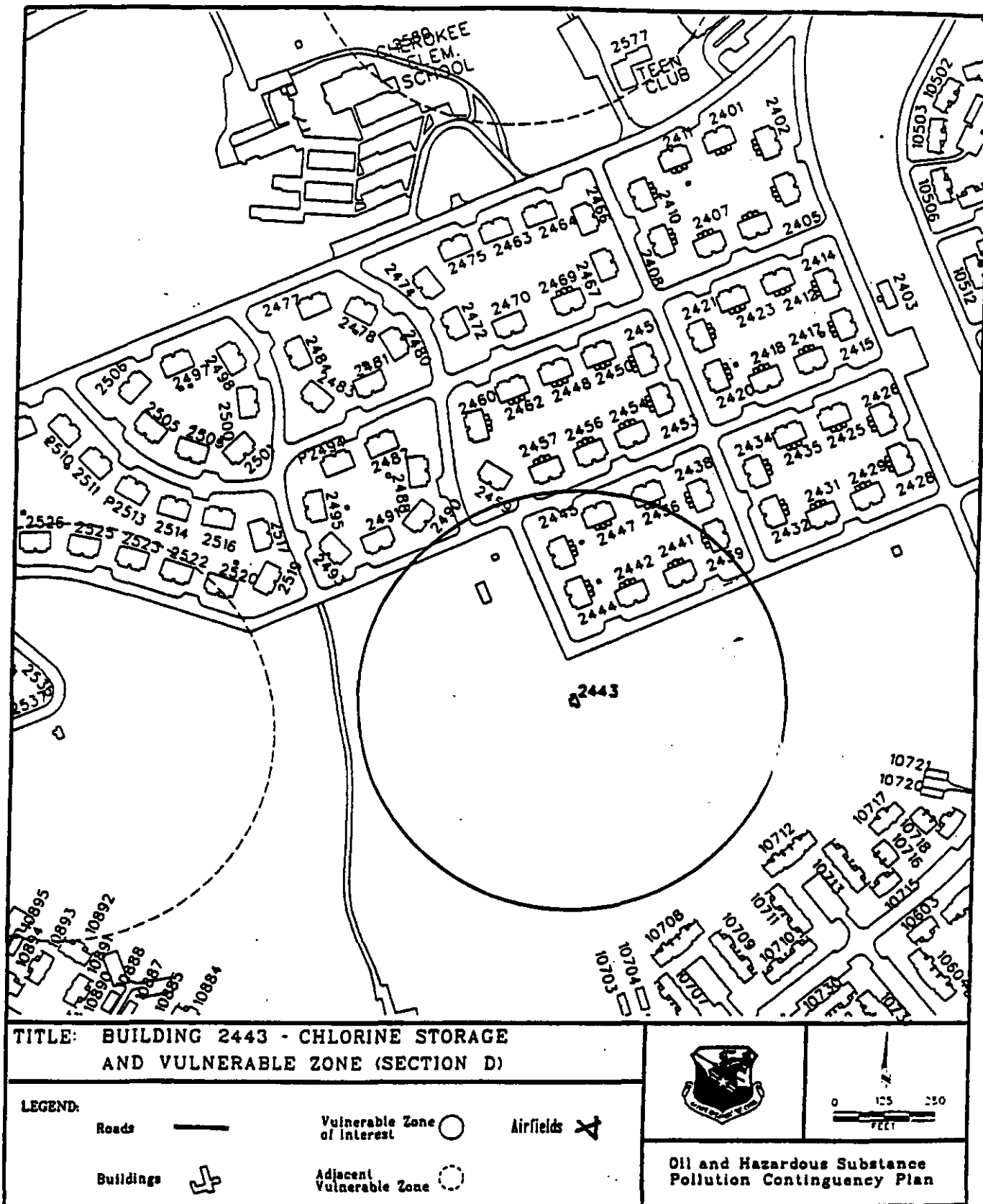
- a. Chemical: Chlorine.
- b. Location: Building 2443, WW No. 11
Map Section D.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 2443 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 50.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: low.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

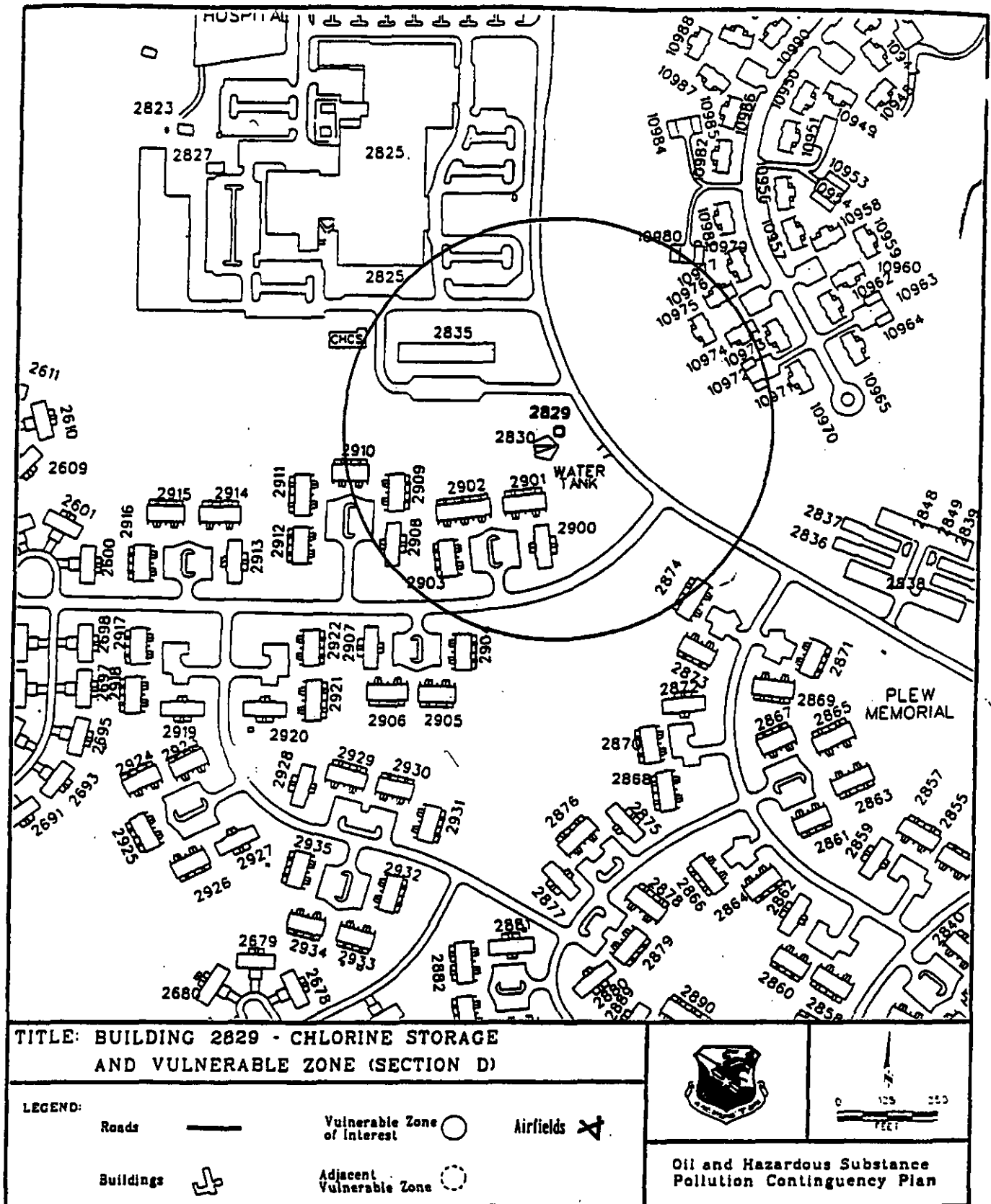
- a. Chemical: Chlorine.
- b. Location: Building 2829, WW No. 12
Map Section D.
- c. Quantity In use: 1 bottle @ 150 pound/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 2829 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: greater than 50.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: low.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

a. Chemical: Chlorine.

b. Location: Building 2985, WW No.13
Map Section D.

c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.

d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 2985 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.

b. Population within Vulnerable Zone: less than 100.

c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

a. Probability of Hazard Occurrence: Medium

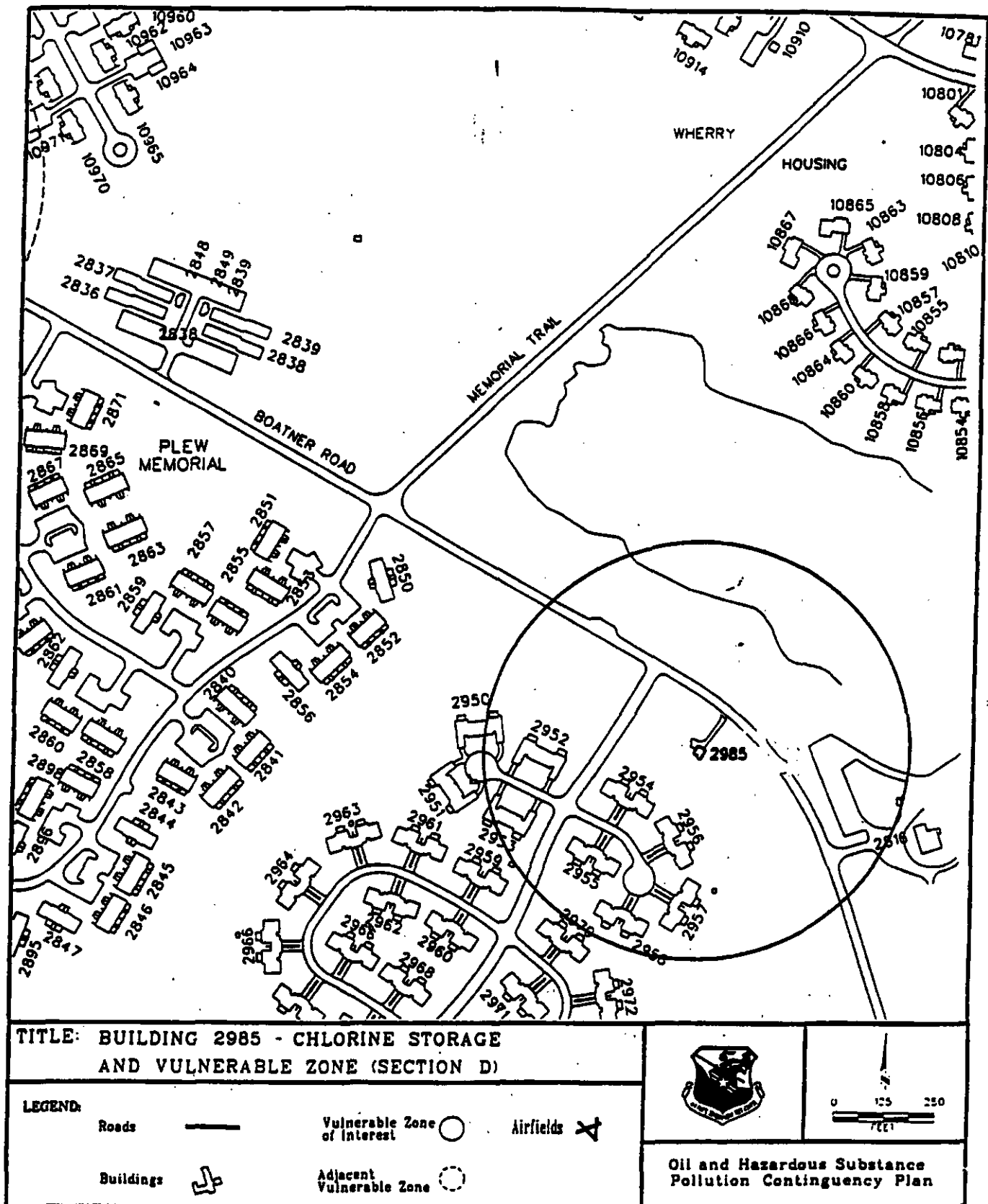
b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.

c. Consequences for Property: Possible superficial damage to facility equipment.

d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.

e. Probability of Simultaneous Emergencies: low.

f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

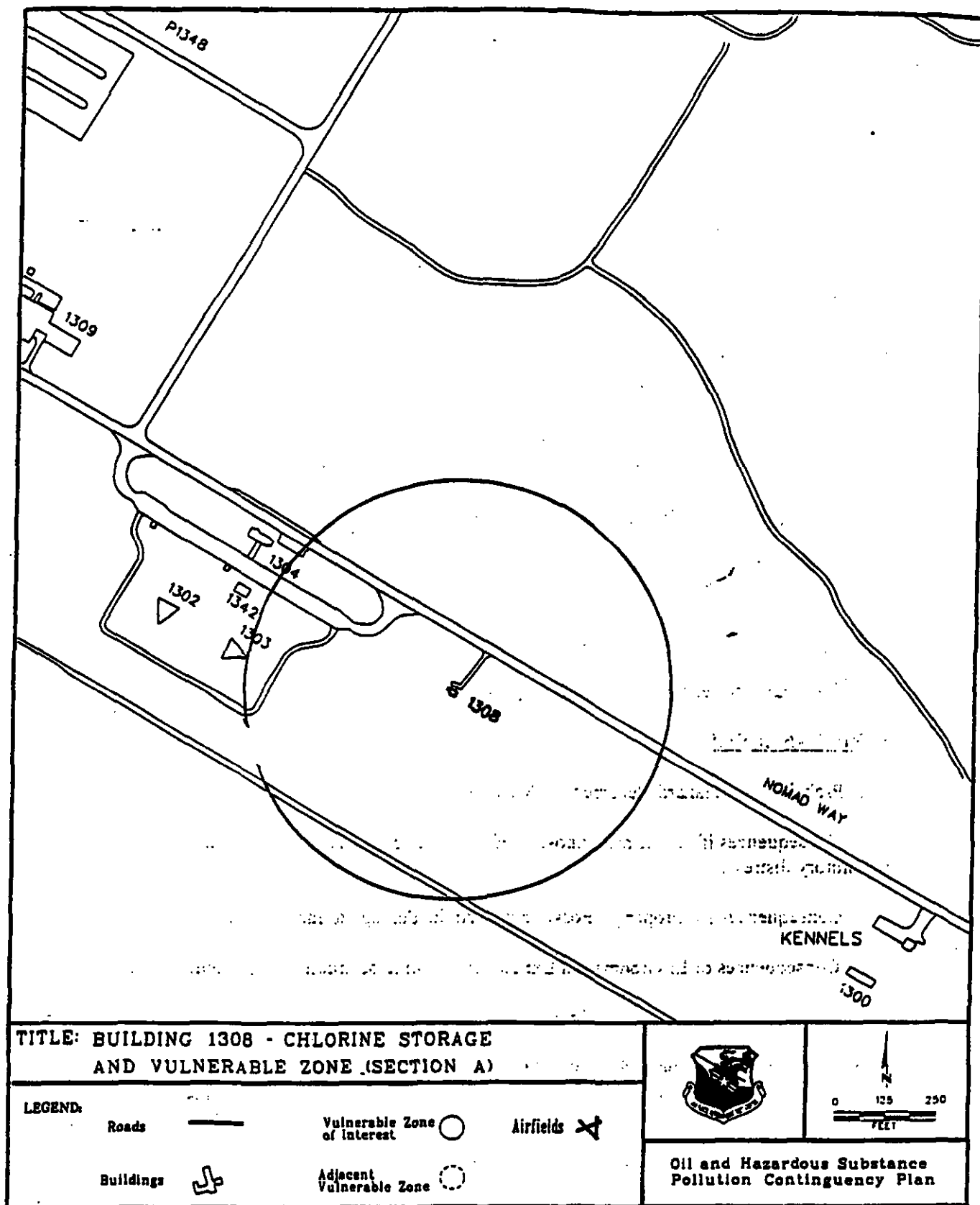
- a. Chemical: Chlorine.
- b. Location: Building 1308, WW No. 14
Map Section A.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 1308 could result in an area of radius of greater than .1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 20.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: low.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

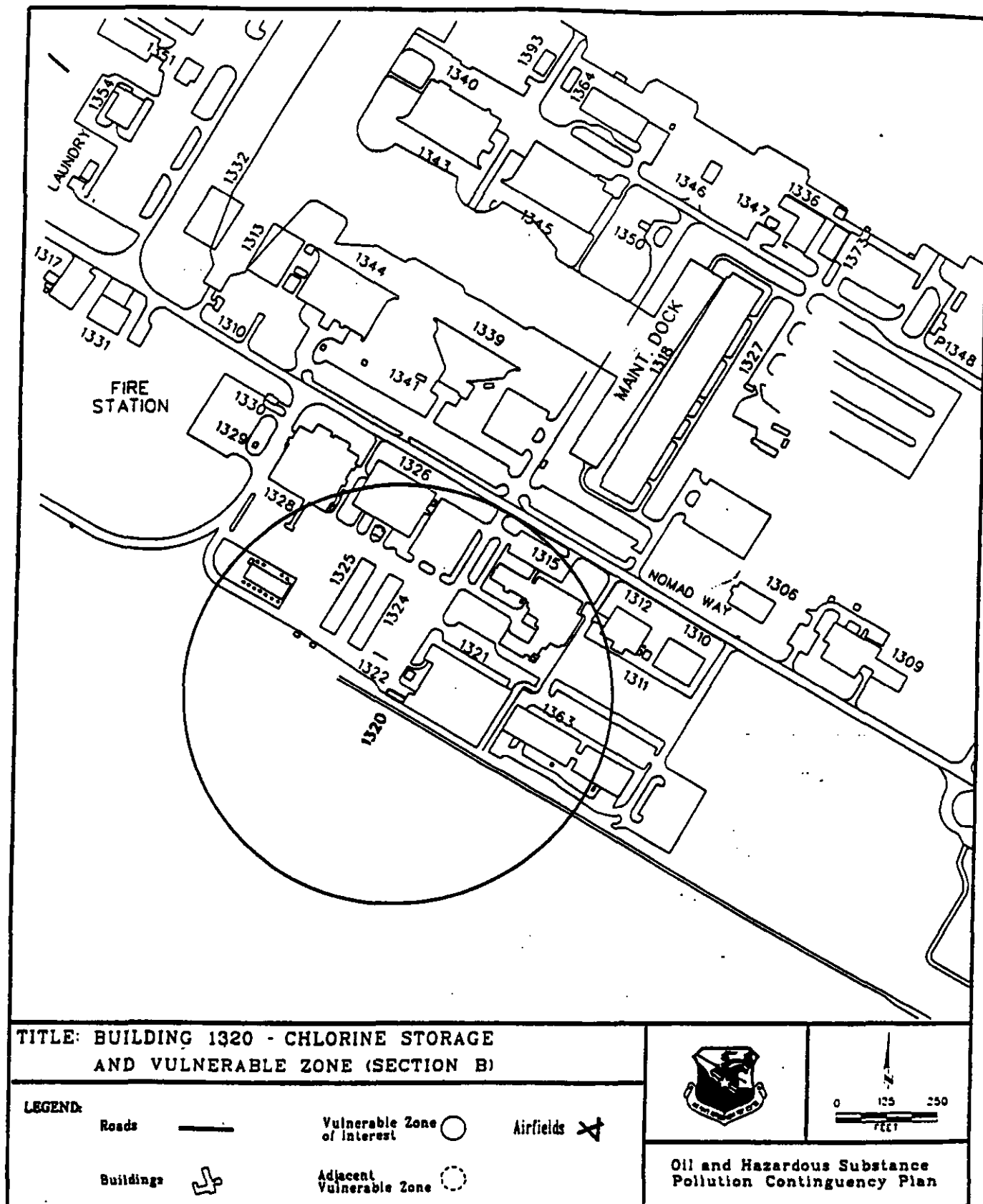
- a. Chemical: Chlorine.
- b. Location: Building 1320, WW No. 15
Map Section A.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 1320 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 500.
- c. Essential services within Vulnerability Zone: None.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium, due to traffic in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

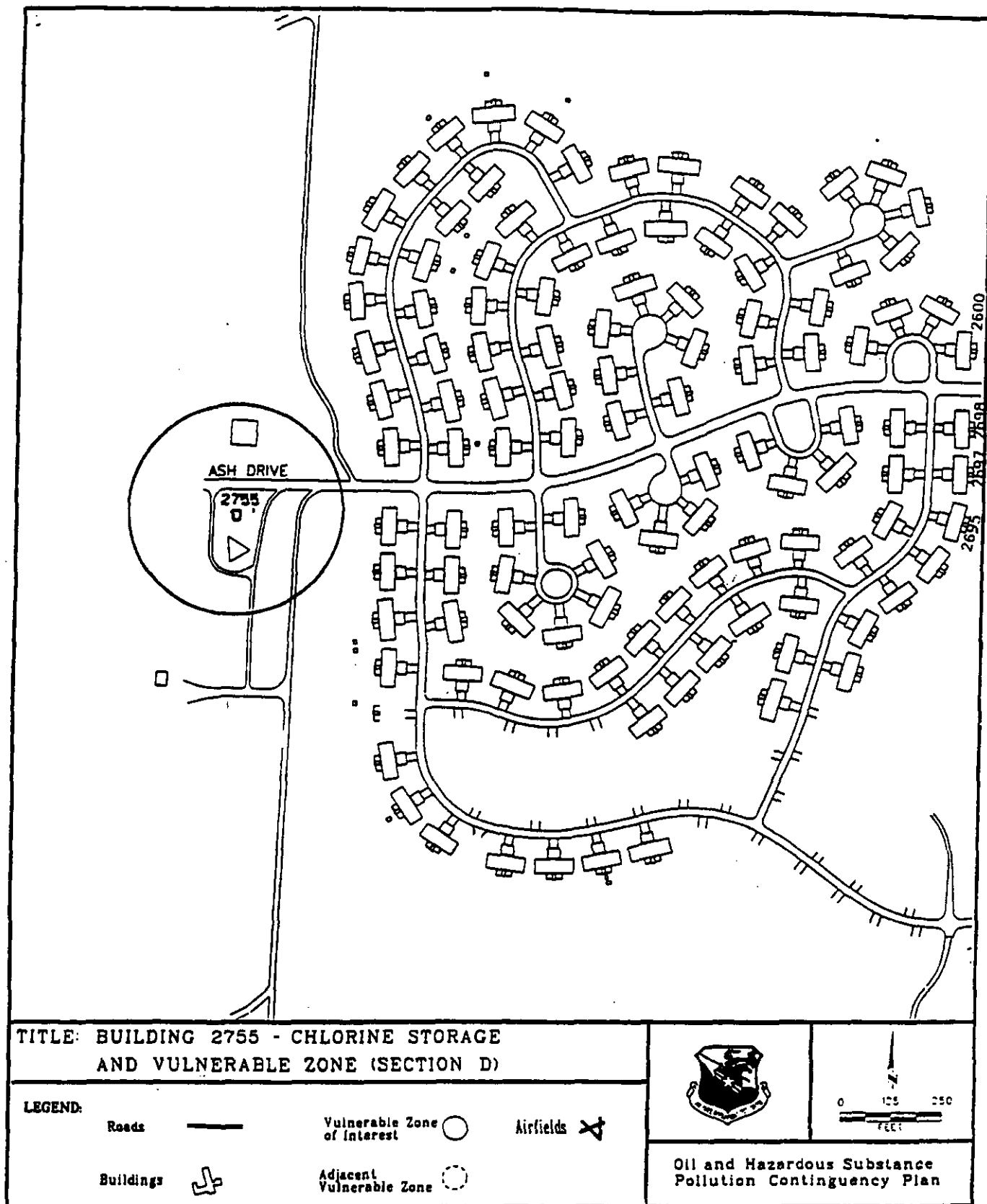
- a. Chemical: Chlorine.
- b. Location: Building 2755 WW No.16
Map Section D.
- c. Quantity In use: 1 bottle @ 150 pounds/bottle = 150 pounds.
Stand-by: 3 bottles.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 150 pounds of chlorine gas from Bldg 2755 could result in an area of radius of greater than 0.1 mile where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 100.
- c. Essential services within Vulnerability Zone: none.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium, due to housing area within zone.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

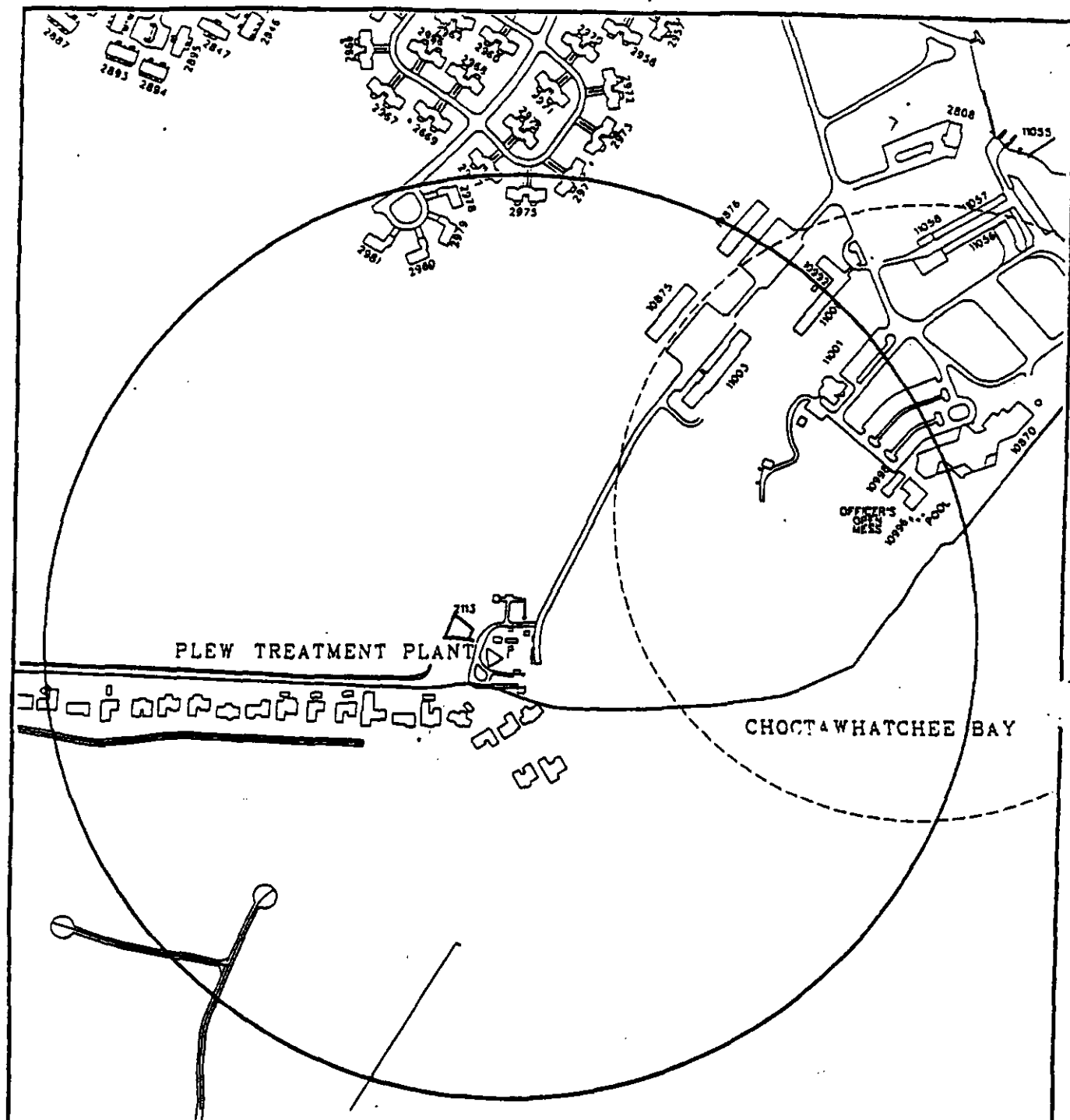
- a. Chemical: Chlorine.
- b. Location: Building 2113 Plew Treatment Plant
Map Section D.
- c. Quantity In use: 5 bottles @ 150 pounds/bottle = 750 pounds.
Stand-by: 8 bottles.
Total available: 12 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 750 pounds of chlorine gas from the Bldg 2113 Plew Treatment Plant could result in an area of radius of greater than 0.3 miles where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 20.
- c. Essential services within Vulnerability Zone: none.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium, due to other chemicals located in the zone.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



TITLE: BUILDING 2113 PLEW TREATMENT PLANT -
CHLORINE STORAGE AND VULNERABLE ZONE
(SECTION D)

LEGEND:

Roads —

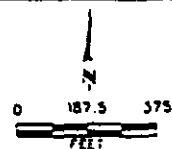
Buildings 

Vulnerable Zone of Interest 

Adjacent Vulnerable Zone 

Airfields 

Eglin Reservation Boundary 



Oil and Hazardous Substance
Pollution Contingency Plan

HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

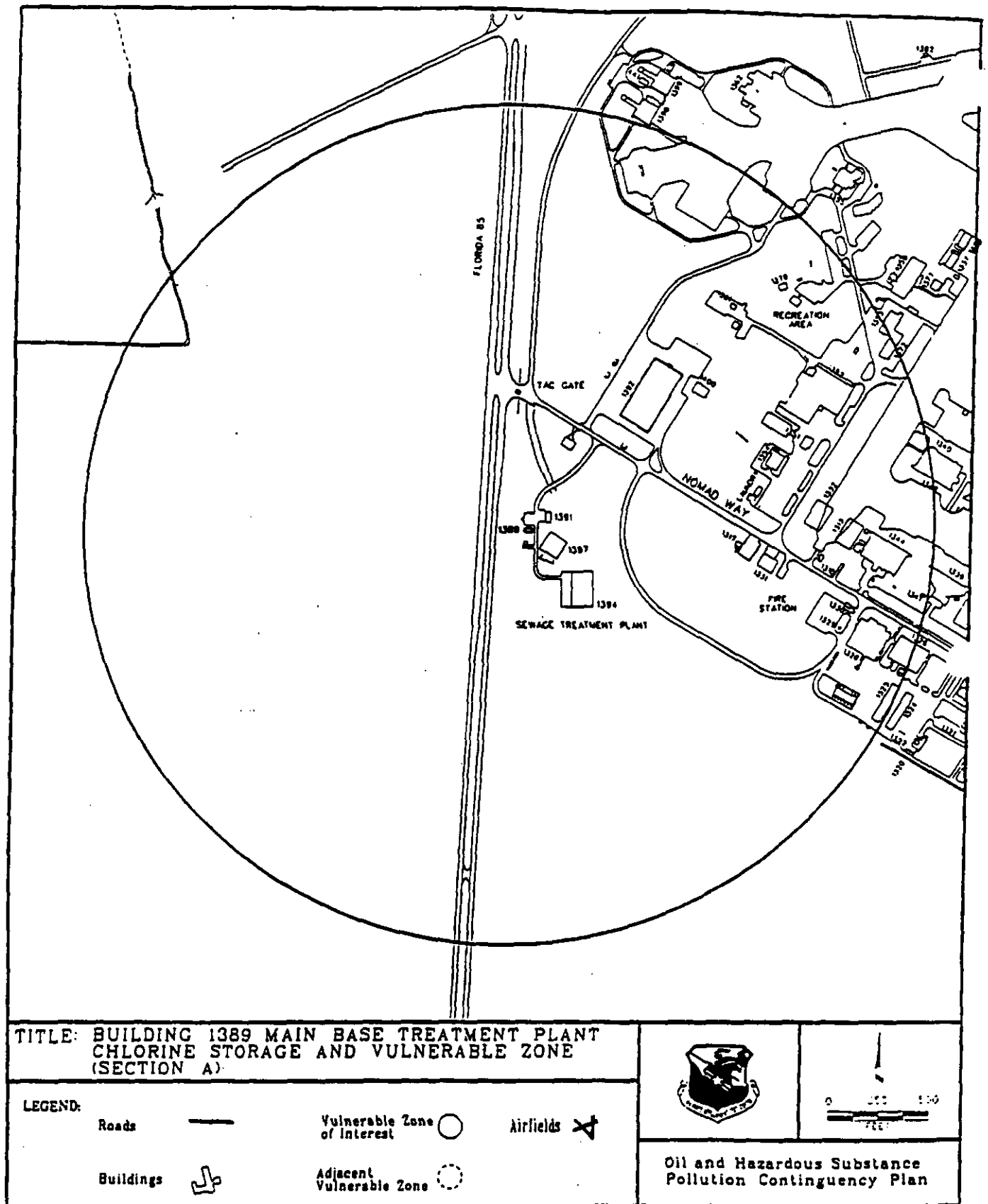
- a. Chemical: Chlorine.
- b. Location: Building 1389 Main Base Treatment Plant
Maps Section A.
- c. Quantity In use: 8 bottles @ 150 pounds/bottle = 1200 pounds.
Stand-by: 7 bottles.
Total available: 11 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 1200 pounds of chlorine gas from the Bldg 1389 could result in an area of radius of greater than 0.4 miles where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 20.
- c. Essential services within Vulnerability Zone: none.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: medium due to other chemicals located in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

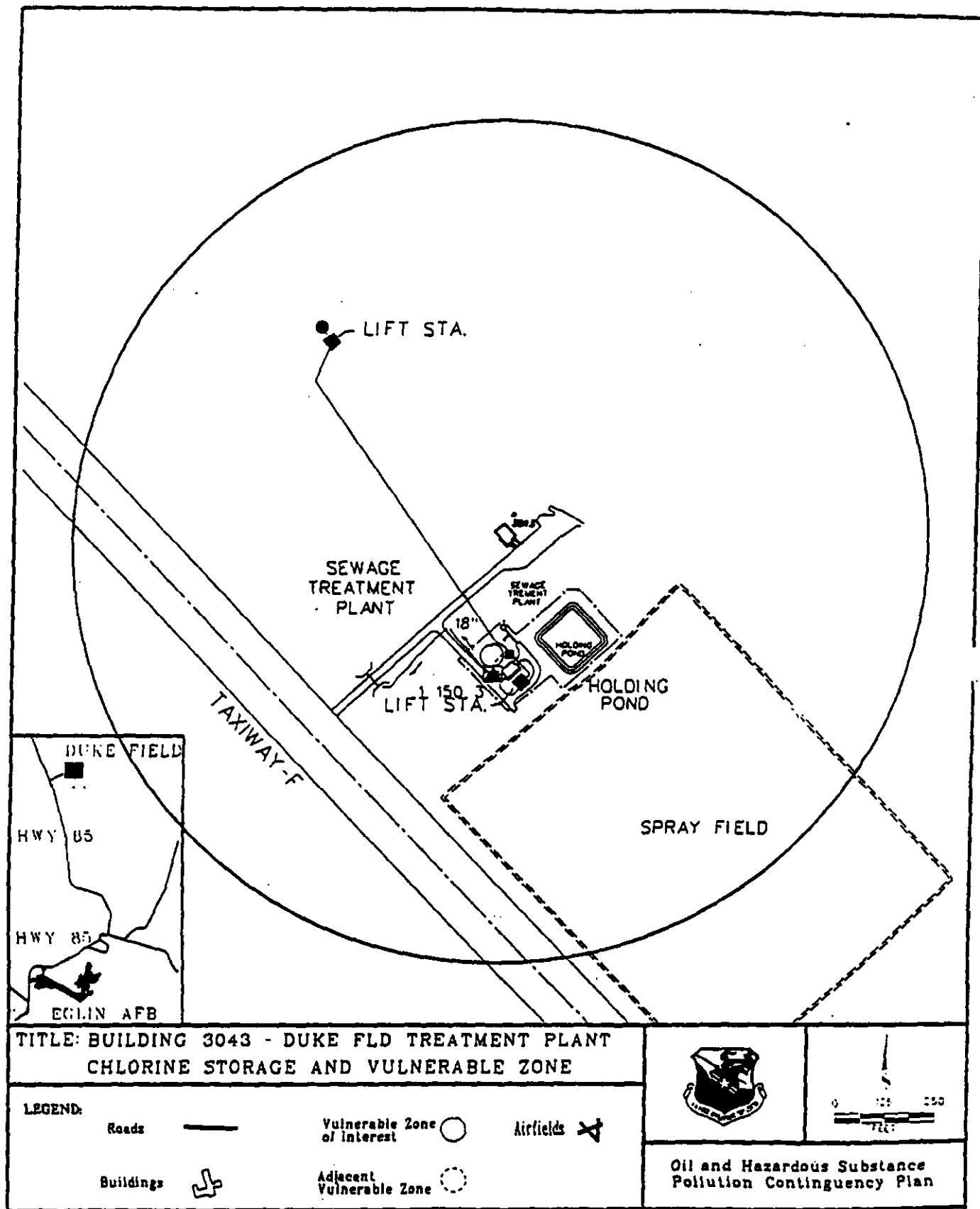
- a. Chemical: Chlorine.
- b. Location: Building 3043 Duke Field Treatment Plant
- c. Quantity In use: 3 bottles @ 150 pounds/bottle = 450 pounds.
Stand-by: 1 bottle.
Total available: 4 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 1200 pounds of chlorine gas from the Bldg 3043 could result in an area of radius of greater than 0.2 miles where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 20.
- c. Essential services within Vulnerability Zone: none.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: Medium, due to other chemicals in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

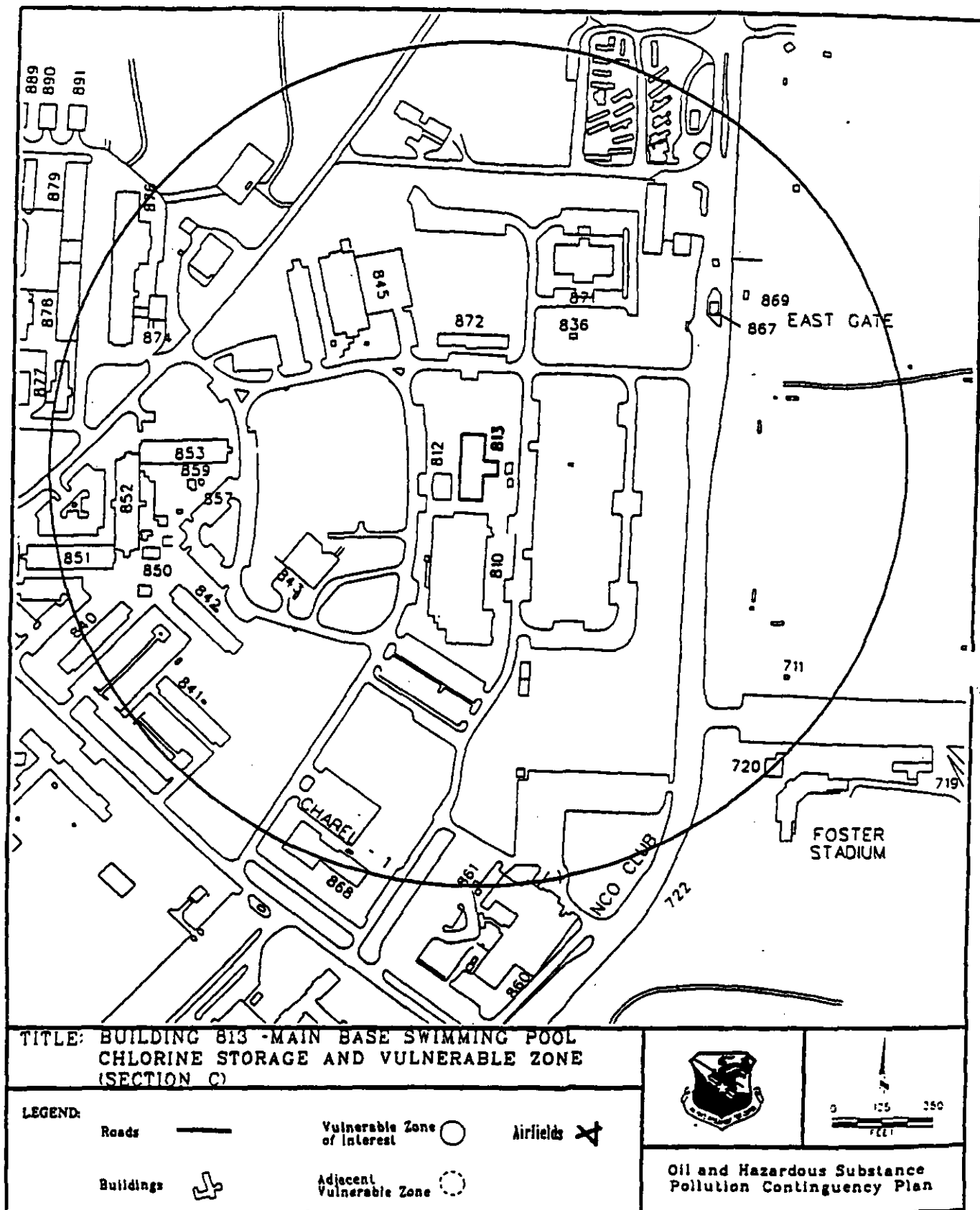
- a. Chemical: Chlorine.
- b. Location: Bldg 813 Main Base Swimming Pool (East Pool)
Map Section C.
- c. Quantity In use: 3 bottles @ 150 pounds/bottle = 450 pounds.
Stand-by: 1 bottle.
Total available: 4 bottles.
- d. Hazardous Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 450 pounds of chlorine gas from the Bldg 813, Main Base Swimming Pool could result in an area of radius of greater than 0.2 miles where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: greater than 1500.
- c. Essential services within Vulnerability Zone: none.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: High due to the potential presence of personnel in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.



HAZARD ANALYSIS SUMMARY

1. HAZARD IDENTIFICATION (Major Hazard):

- a. Chemical: Chlorine.
- b. Location: Building 10996, Officers Swimming Pool (West Pool)
Map Section D.
- c. Quantity In use: 2 bottles @ 150 pounds/bottle = 300 pounds.
Stand-by: 1 bottle.
Total available: 3 bottles.
- d. Properties: Poisonous; may be fatal if inhaled. Respiratory conditions aggravated by exposure. Contacts may cause burns to skin and eyes. Corrosive effects may be delayed.

2. VULNERABILITY ANALYSIS:

- a. Vulnerable Zone: A spill of 300 pounds of chlorine gas from the Bldg 10,996, Officers Swimming Pool, could result in an area of radius of greater than 0.2 miles where chlorine may exceed the level of concern.
- b. Population within Vulnerable Zone: less than 500.
- c. Essential services within Vulnerability Zone: none.

3. RISK ANALYSIS:

- a. Probability of Hazard Occurrence: Medium.
- b. Consequences if People are Exposed: High levels of chlorine gas could cause death or respiratory distress.
- c. Consequences for Property: Possible superficial damage to facility equipment.
- d. Consequences of Environmental Exposure: Possible destruction of surrounding fauna.
- e. Probability of Simultaneous Emergencies: High, due to the potential for the presence of personnel in the area.
- f. Summary of Likelihood/Severity of Occurrence: Medium/Medium.

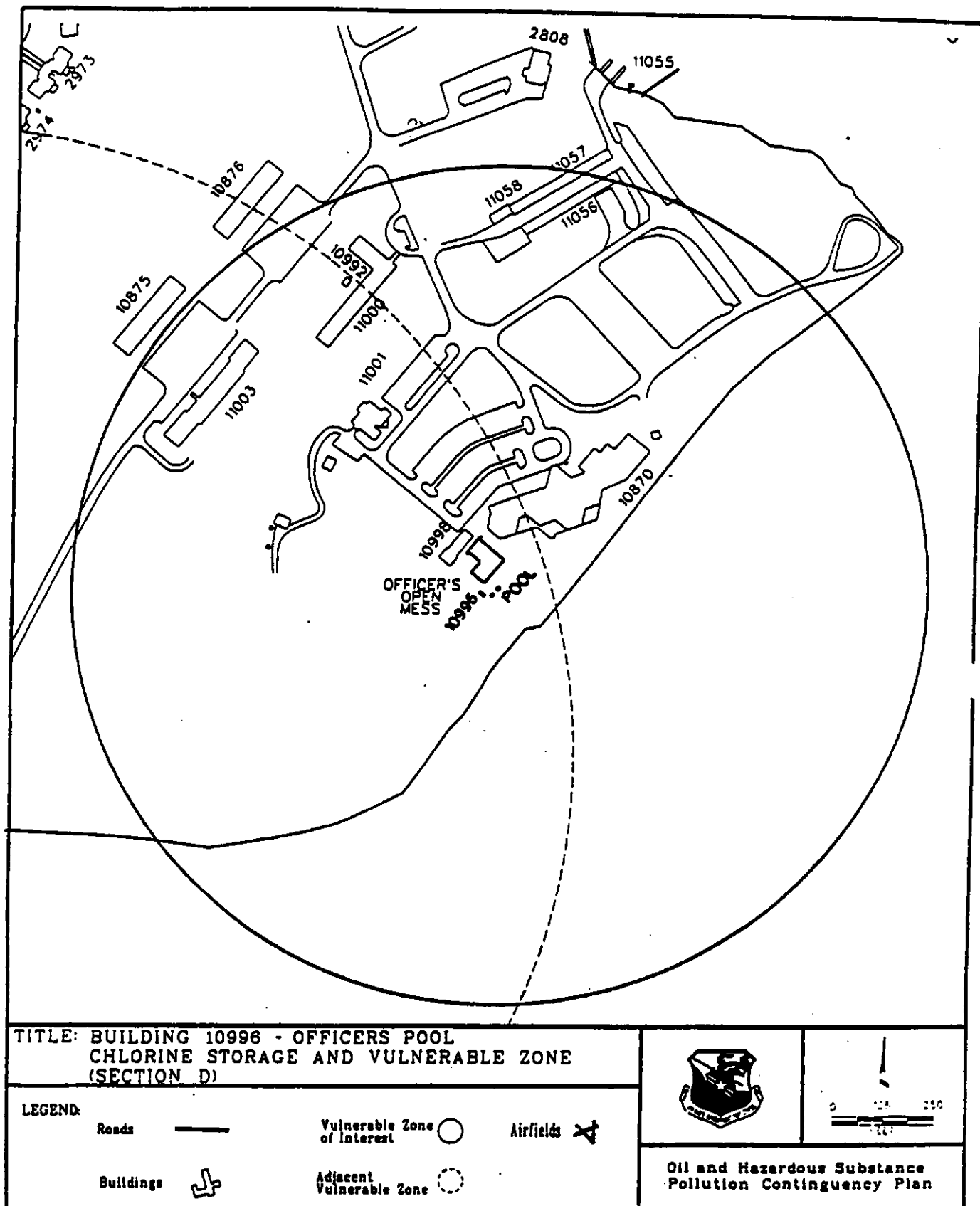


EXHIBIT 4 TO TAB F TO APPENDIX I TO ANNEX H TO AFDTC PLAN 32-6
SITE SPECIFIC SPILL PLAN - COMPRESSED AMMONIA (Building 954)

AMMONIA STORAGE

1. NOTIFICATION AND INITIAL SPILL RESPONSE: General information. Eglin AFB has several locations storing extremely hazardous substances. The following notification procedures should be used in the event of a spill:

- a. Activate emergency alarms.
- b. Shut down operations and secure equipment.
- c. Evacuate the area.
- d. Immediately notify the 96 SFS by dialing 911.
- e. Contain the spill at the source if it can be done safely and proper training and personnel protective equipment is available. No spill cleanup should be attempted until personnel conducting the cleanup have put on protective equipment (protective clothing, self contained breathing apparatus, protective boots, gloves and face shields).
- f. Make spill scene off limits to unauthorized personnel.
- g. Report to the OSC upon HazMat Team arrival and provide assistance until team is fully operational.
- h. Make sure an employee roll call is conducted to discover whether any personnel are trapped in the affected area.

2. SPECIAL PRECAUTIONARY MEASURES:

- a. Proper personal protective equipment (protective clothing, self contained breathing apparatus, protective boots, gloves and face shields) shall be worn in accordance with 29 CFR 1910.120 when handling hazardous materials.
- b. Refer to Material Safety Data Sheets for particular PPE required.

3. PROBABLE SPILL ROUTE: Spills of Ammonia Gas will enter the air as a vapor emission. With a molecular weight of 17, ammonia is lighter than air and will tend to rise when released to the atmosphere. If, however, humidity levels are high, the water vapor will convert the ammonia gas to ammonium hydroxide which is heavier than air and will tend to collect in low lying areas.

4. EVACUATION PLAN: The signal to begin evacuation shall be by voice command as initiated by the person discovering the spill or the appropriate supervisor.

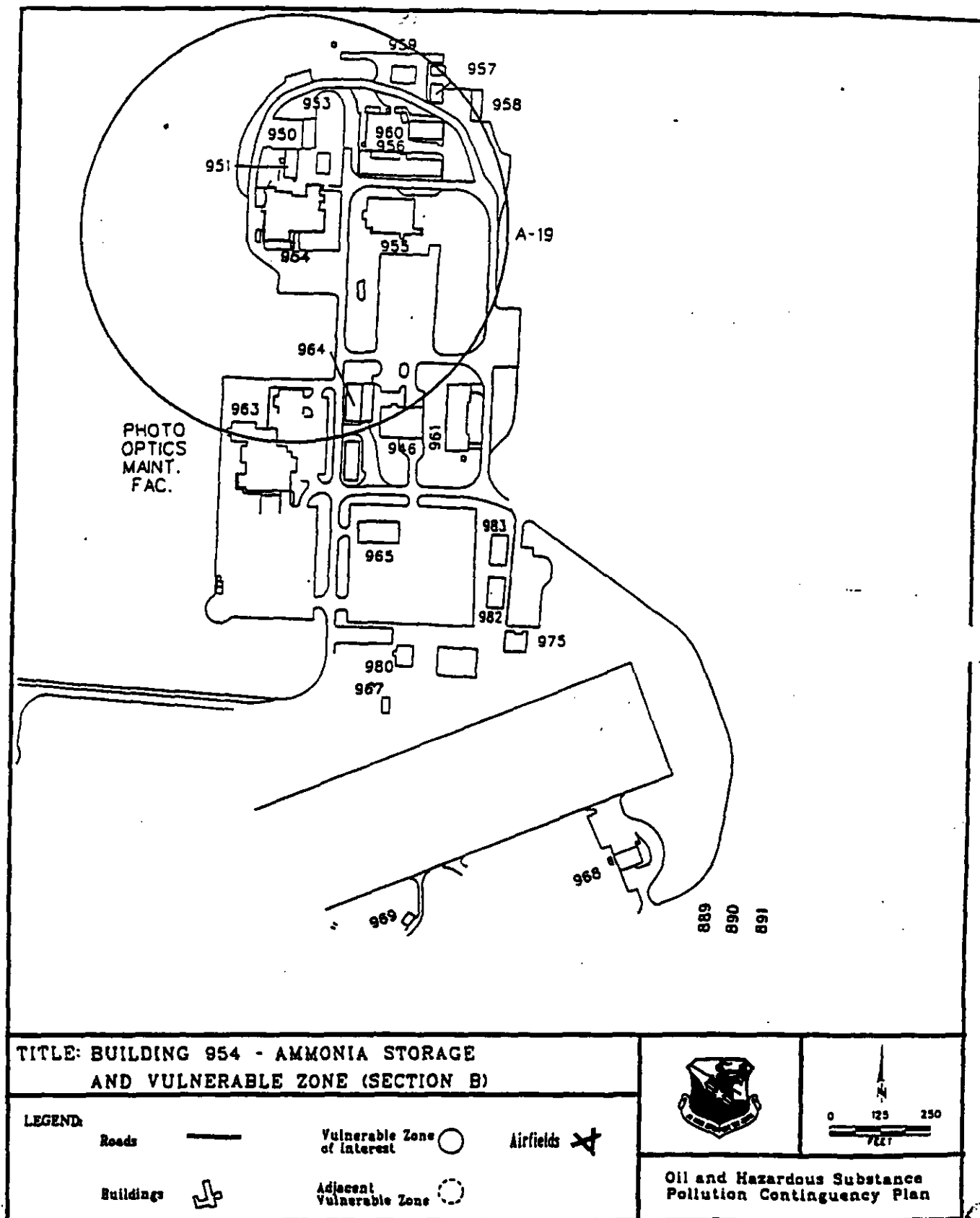


EXHIBIT 5 TO TAB F TO APPENDIX 1 TO ANNEX H TO AFDTC PLAN 32-6
SITE SPECIFIC SPILL PLAN - EGLIN RESERVATION ABOVE GROUND AND UNDERGROUND STORAGE TANKS

1. NOTIFICATION AND INITIAL SPILL RESPONSE: In the event of a spill from an above ground or under ground storage tank, the following actions should be taken:

- a. Activate nearest emergency alarm
- b. Evacuate the area as required
- c. Immediately contact the 96 SFS by dialing 911 and give your name, the type of chemical spilled, the location of the spill, and the estimated quantity spilled.
- d. Make spill scene off limits to unauthorized personnel.
- e. Report to OSC commander and provide assistance as needed until the HAZMAT team is fully operational.

2. DISCHARGE RESPONSE: Florida Administrative Code (FAC) requires Eglin to perform the following:

- a. When evidence of a discharge from a storage tank system is discovered and reported in accordance with Rule 62-761.820 (1), FAC, the owner or operator shall remove as much of the regulated substance from the system as is necessary to prevent further release to the environment.
- b. Fire, explosion, and vapor hazardous shall be identified and mitigated.
- c. The storage tank system shall be repaired, if possible, in accordance with Rule 62-761.700, FAC.
- d. If the storage tank system cannot be repaired, it shall be closed in accordance with Rule 62-761.800 (2), FAC.
- e. Any owner operator of a facility discharging a regulated substance shall immediately undertake to contain, remove, and abate the discharge in accordance with Chapter 62-770, FAC, 403, FS.
- f. If the containment present is subject to the provisions of Chapter 62-770, FAC, corrective action shall be conducted in accordance with that cleanup criteria rule.

3. REPORTING REQUIREMENTS: The responsible organization shall report all spills and accidental discharges of petroleum, oils, lubricants and chemicals from a storage tank on FAC, Form 62-761.900(1), Figure H.1.F.5.2. Please complete this form and hand carry or fax to AFDTC/EMC, Bld 696 within 4

hours of the spill occurrence. AFDTC will notify the Florida Department of Environmental Protection (FDEP) and locally administer tanks compliance regulators as required by FAC 62-761.820 and 762.820.

4. **DISCHARGE REPORTING:** The responsible organization shall report the following items to AFDTC/EMC for reporting to the FDEP or locally administered tanks compliance program on Form 62-761.900(1):

a. The owner operator shall report the following items to AFDTC/EMC for reporting to FDEP and , if the storage tank system is in a county with a locally administered program under contract with the FDEP, to that locally administered program on Form 62-761.900 (1) (Storage Tanks-Eglin is shown in Figure H-1-F-5-1).

b. Receipt of any tightness test results that exceed allowable tolerances within ten days after the date of receipt of the test results, and results of any confined tightness test within 30 days of the date of the first test. The report shall be accompanied by a copy of the tightness report;

c. Any spill, overfill, or other discharge of regulated substances from a storage tank system that equals or exceeds its reportable quantities under federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, 40 CFR Section 302, within one working day of discovery of the discharge, or any spill, overfill or other discharge of petroleum or petroleum product that results in a release to the environment that exceeds 25 gallons or that causes a sheen on surface water.

d. Suspected releases within one working day of discovery.

5. **SPECIAL PRECAUTIONARY MEASURES:**

a. Proper personal protective equipment (protective clothing, self contained breathing apparatus, protective boots, gloves and face shields) shall be worn in accordance with 29 CFR 1910.120 when handling hazardous materials.

b. Refer to Material Safety Data Sheets for particular hazards and precautionary measures for specific chemical material or POL products.

6. **PROBABLE SPILL ROUTE:** Spills of the following chemicals and POL's. Some being heavier than air, vapors will travel in the direction of the prevailing wind and/or settle in low lying areas. Caution should be taken, "Check MSDS for specific gravities".

7. **EVACUATION PLAN:** The signal to begin evacuation shall be by voice command as initiated by the person discovering the spill or the appropriate supervisor.

8. **CONTAINMENT AND COUNTERMEASURES:** Protective equipment needed by all personnel being exposed to releases of any nature should refer to MSDS for proper protective equipment.

9. **LEAK DETECTION ALARMS:** Report any tank leak detection alarms to Civil Engineer Liquid Fuels Maintenance Branch (CEOIL) at 2-4840 during duty hours. After duty hours report leak detection alarms to the CE 24 Hour Service desk at 2-3177. Alarms shall be disarmed by authorized personnel from CEOIL and POL authorized to reset hydrant alarms after duty hours.. CEOIL shall report all alarms to AFDTC/EMC, 882-6282, Storage Tanks Compliance Manager. EMC shall report alarms to FDEP as

required by Florida Administrative Code 62-761.460 and confirmed releases to HQ USAF/CEV in accordance with AFI 32-7044, Storage Tank Compliance.

10. TANK INVENTORY: Tank custodian must report any changes, actions or deletions to the Storage Tank Inventory (Figure H.1.F.5.1) on Storage Tank Registration Form FAC 62-761.900(2) (Figure H.1.F.5.3), to AFDTC/EMC Storage Tank Manager. Follow directions and use codes found on back of form. AFDTC/EMC shall update Storage Tank Inventory for Spill Plan and file notifications with FDEP as required by FAC 62-761.450. This regulation requires any changes to the regulated storage tank system be reported to the FDEP 30 days prior to the change.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2401

DER Form #	17-781.500(2)
Form Title	Storage Tank Registration Form
Effective Date	December 10, 1990
DER Application No.	(Filled in by DER)

Storage Tank Registration Form

Please Print or Type - Review Instructions Before Completing Form

1. DER Facility ID Number: _____ 2. Facility Type: _____
3. New Registration ☐ New Owner Data ☐ Facility Revision ☐ Tank(s) Revision ☐
4. County and Code of tank(s) location: _____ / _____

5. Facility Name: _____

Tank(s) Address: _____

City/State/Zip: _____

Contact Person: _____ Telephone: (____) _____

6. Financial Responsibility Type: _____

7a. Tank(s) Owner: _____

Owner Mailing Address: _____

City/State/Zip: _____

Contact Person: _____ Telephone: (____) _____

7b. New Owner Signature/Change Date: _____ / _____ / _____

8. Location (optional) Latitude: ____° ____' ____" Longitude: ____° ____' ____" Section ____ Township ____ Range ____

Complete One Line For Each Tank At This Facility (Use Codes - See Instructions)

Complete 9 - 16 for tanks in use; 9 - 19 for tanks out of use

9	10	11	12	13	14	15	16	17	18	19

20. _____ DPR# _____
Certified Contractor* Department of Professional Regulation License Number*

*For new tank installation or tank removal

To the best of my knowledge and belief all information submitted on this form is true, accurate and complete.

Print name & title of owner or authorized person

Signature

Date

Northeast District
168 Government Center
Pensacola, Florida 32501-5756
904-438-6330

Northeast District
7525 Baymeadows Circle, Suite B 200
Jacksonville, Florida 32217
904-736-4300

Central District
3319 Midway Road, Suite 228
Orlando, Florida 32835-3797
407-484-7555

Southwest District
4520 Glen Ford Blvd
Tampa, Florida 33610-7347
813-633-8461

South District
3280 Bay St
Fort Myers, Florida 33901-2666
813-333-6971

Southwest District
1685 S. Congress Ave., Suite A
West Palm Beach, Florida 33411
407-433-3850

REGfiles: 12/93

FIGURE 3 TO EXHIBIT 5 TO TAB F TO APPENDIX 1 TO ANNEX H TO AFDTC
PLAN 32-6
STORAGE TANK REGISTRATION FORM 62-761.900(2)

REFERENCES: See Site Specific Spill Plan - Eglin Reservation Above Ground and Underground Storage Tanks.

GENERAL: The following Form 62-761.900(2) should be used to report any changes, additions, or deletions to the Storage Tank Inventory.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DER Form #	17-761.900(1)
Form Title	Discharge Reporting Form
Effective Date	December 10, 1990
DER Application No.	(Filed in by DER)

Discharge Reporting Form

Use this form to notify the Department of Environmental Regulation of:

1. Results of tank tightness testing that exceed allowable tolerances within ten days of receipt of test result.
2. Petroleum discharges exceeding 25 gallons on pervious surfaces as described in Section 17-761.460 F.A.C. within one working day of discovery.
3. Hazardous substance (CERCLA regulated), discharges exceeding applicable reportable quantities established in 17-761.460(2) F.A.C., within one working day of the discovery.
4. Within one working day of discovery of suspected releases confirmed by: (a) released regulated substances or pollutants discovered in the surrounding area, (b) unusual and unexplained storage system operating conditions, (c) monitoring results from a leak detection method or from a tank closure assessment that indicate a release may have occurred, or (d) manual tank gauging results for tanks of 550 gallons or less, exceeding ten gallons per weekly test or five gallons averaged over four consecutive weekly tests.

Mail to the DER District Office in your area listed on the reverse side of this form

PLEASE PRINT OR TYPE
Complete all applicable blanks

1. DER Facility ID Number: _____ 2. Tank Number: _____ 3. Date: _____
4. Facility Name: _____
Facility Owner or Operator: _____
Facility Address: _____
Telephone Number: (_____) _____ County: _____
Mailing Address: _____
5. Date of receipt of test results or discovery: _____ month/day/year
6. Method of initial discovery. (circle one only)
A. Liquid detector (automatic or manual) D. Emptying and Inspection. F. Vapor or visible signs of a discharge in the vicinity.
B. Vapor detector (automatic or manual) E. Inventory control. G. Closure: _____ (explain)
C. Tightness test (underground tanks only). H. Other: _____
7. Estimated number of gallons discharged: _____
8. What part of storage system has leaked? (circle all that apply) A. Dispenser B. Pipe C. Fitting D. Tank E. Unknown
9. Type of regulated substance discharged. (circle one)
A. leaded gasoline D. vehicular diesel L. used/waste oil V. hazardous substance includes pesticides, ammonia, chlorine and derivatives (write in name or Chemical Abstract Service CAS number) _____
B. unleaded gasoline F. aviation gas M. diesel Z. other (write in name) _____
C. gasohol G. jet fuel O. newlube oil
10. Cause of leak. (circle all that apply)
A. Unknown C. Loose connection E. Puncture G. Spill _____ I. Other (specify) _____
B. Split D. Corrosion F. Installation failure H. Overfill _____
11. Type of financial responsibility. (circle one)
A. Third party insurance provided by the state insurance contractor C. Not applicable
B. Self-insurance pursuant to Chapter 17-769.500 F.A.C. D. None
12. To the best of my knowledge and belief all information submitted on this form is true, accurate, and complete.

Printed Name of Owner, Operator or Authorized Representative

Signature of Owner, Operator or Authorized Representative

Northwest District
180 Government Center
Panama City, Florida 32401-5784
904-436-6300

Northeast District
7825 Baymeadows Way, Suite B 300
Jacksonville, Florida 32207
904-798-4200

Central District
3319 Maguire Blvd, Suite 232
Orlando, Florida 32803-3787
407-864-7555

Southwest District
4320 Oak Park Blvd
Tampa, Florida 33610-7347
813-823-5561

South District
2288 Bay St
Fort Myers, Florida 33901-2696
813-332-6975

Southeast District
1800 S. Congress Ave., Suite A
West Palm Beach, Florida 33406
407-433-2650

CODES LIST FOR DER STORAGE TANK REGISTRATION FORM 17-761.900(2)

#2 - FACILITY TYPE

- | | | |
|----------------------------------|---------------------------------|---|
| A. Retail station | G. State government | M. Agricultural |
| B. Residence | H. Local government | N. Indian land |
| C. Fuel user/non-retail | I. County government | T. Coastal bulk petroleum or chemical storage |
| D. Inland bulk petroleum storage | J. Collection station | V. Marine fueling facility |
| E. Industrial plant | K. Inland bulk chemical storage | Z. Other; please specify |
| F. Federal government | L. Chemical user | |

#6 - FINANCIAL RESPONSIBILITY

- A. State Program - Third party liability/State contractor (FPLIPA/AIGI).
 B. State Program - Third party liability/Sell insurance with other carrier; other federal financial responsibility mechanism.
 C. Other coverage meeting federal financial responsibility requirements.
 D. None

#9 - TANK ID NUMBER

Number sequentially, 1,2,3; or provide specific identifying name or number; 6 characters, maximum)

#10 - TANK SIZE IN GALLONS

#11 - CONTENT

- | | | |
|-------------------------------|---|--|
| A. Leaded gasoline | H. Fuel - generator or pump | R. Ammonia compound |
| B. Unleaded gasoline | K. Kerosene | S. Chlorine compound |
| C. Gasohol | L. Waste oil | T. Hazardous substance (CERCLA) |
| D. Vehicular diesel | M. Fuel oil: on-site heat use only; all USTs or ASTs < 30K gals | U. Mineral acid |
| E. Aviation gasoline | N. Fuel oil: distribution, or on-site heat use ASTs > 30K gals | V. Grades 5 & 6, bunker "C" residual oils |
| F. Jet fuel | O. New & lube oil | W. Petroleum-base additive |
| G. Fuel - emergency generator | Q. Pesticide | X. Other, miscellaneous petroleum-base product |

#12 - INSTALLATION DATE (mm/yy)

#13 - TANK PLACEMENT

A = Aboveground tank
 U = Underground tank

C = Aboveground Compression Vessel
 D = Underground Compression Vessel

#14 - TANK CONSTRUCTION - choose one primary construction and all other codes that apply; primary is inner tank construction for double wall tanks

Primary Construction:

- | | |
|--------------------------|-------------------------------------|
| C. Steel | X. Concrete |
| D. Unknown | Y. Polyethylene |
| E. Fiberglass | Z. Other DER approved tank material |
| F. Fiberglass-clad steel | |

Overfill/Spill:

- | | |
|---------------------|---|
| A. Ball check valve | M. Spill containment bucket |
| N. Flow shut-off | P. Level gauges, high-level alarms |
| O. Tight fill | Q. Other DER approved protection method |

Corrosion Protection:

- | | |
|--|--|
| G. Cathodic protection - sacrificial anode | H. Cathodic protection - impressed current |
|--|--|

Secondary Containment:

- | |
|--|
| I. Double wall construction: single material; outer tank material same as inner tank material |
| R. Double wall construction: dual material; outer tank constructed of concrete, approved synthetic material or tank "jacket" |
| J. Synthetic liner in tank excavation |
| K. Concrete, synthetic material, and/or effete clays beneath AST and in containment area |
| S. Other DER approved secondary containment system |

Miscellaneous attributes:

- | | |
|--------------------|-----------------------|
| B. Internal lining | U. Field erected tank |
| L. Compartmented | |

#15 - PIPING CONSTRUCTION - choose one primary construction and all other codes that apply; primary is inner pipe construction for double wall piping

Primary Construction:

- | | |
|--------------------------------|---------------------------------------|
| B. Steel or galvanized metal | Y. Unknown |
| C. Fiberglass | Z. Other DER approved piping material |
| N. Approved synthetic material | |

Corrosion Protection:

- | |
|---|
| D. External protective coating |
| E. Cathodically protected with sacrificial anode or impressed current |

Secondary Containment:

- | |
|--|
| F. Double wall construction: single material; outer pipe material same as inner pipe material |
| M. Double wall construction: dual material; outer pipe constructed of approved synthetic material or pipe "jacket" |
| G. Synthetic liner or box/trench liner in piping excavation or pipe containment area |

Miscellaneous attributes:

- | | |
|--------------------------------------|-----------------------------------|
| A. Aboveground, no contact with soil | K. Dispenser liners |
| I. Suction piping system | L. Bulk product system |
| J. Pressurized piping system | M. Airport/airport hydrant system |

#16 - LEAK DETECTION METHODS - choose all that apply

Site/general:

- | | |
|---|---|
| A. Automatically sampled wells | B. Manually sampled wells |
| C. Groundwater monitoring plan | D. SPCC Plan |
| N. Groundwater monitoring system | O. Vapor monitoring system |
| I. Not required - see rule for exemptions | X. None |
| Y. Unknown | Z. Other DER approved monitoring method |

Tank monitoring:

- | | |
|--|---------------------------|
| E. Interstitial space - tank/liner | L. Automatic tank gauging |
| F. Interstitial space - double wall tank | M. Manual tank gauging |

Piping monitoring:

- | | |
|------------------------------------|--|
| G. In-line detector, auto shut off | J. Interstitial space - piping/liner |
| H. In-line flow restrictor | K. Interstitial space - double wall piping |

#17 - TANK STATUS &/or TANK DISPOSAL

- A. Properly closed in place - UST filled with sand, concrete or other inert material; AST rendered unusable
 B. Removed from the site
 * A or B: Closure Assessment required after 12/10/90 (UST); 03/12/91 (AST) - EDI sites excluded
 F. Unmaintained tank - not in use or to be used, and not properly disposed
 T. Temporarily out-of-service
 U. In-service

#18 - GALLONS LEFT

in out-of-service tank

#19 - LAST USED DATE (mm/yy)

or date of permanent closure

(1) FILL IN YOUR NINE-DIGIT FACILITY ID NUMBER IF SUBMITTING A REVISION.

NEW REGISTRANTS: Leave (1) blank; Identification number is assigned by DER after initial registration has been completed.

- (2) **Facility type:** choose the most appropriate code from list #2.
- (3) Check whether you are submitting a **NEW, FIRST-TIME REGISTRATION** or **REVISIONS** to information on a previously registered facility.
- (4) **County name & proper code:** indicate tanks location by county (see list #4).
- (5) **Facility name & address:** provide complete information of the tank(s) location supply the name of a contact person at the facility and a telephone number.
- (6) **Financial responsibility type:** fill in applicable code (list #6); only choose A or B if State Restoration Coverage Notice of Eligibility has been issued.
- (7a) **Owner name & address:** provide complete mailing address and telephone number. Also provide the name of a contact person for the owner/company.
- (7b) **WHEN THE FACILITY CHANGES OWNERSHIP:** complete #5 above with the new facility name (if applicable), complete (7a) with new owner name and address information and (7b) with new owner signature & ownership transfer date.
- (8) Complete site location information if available.

Complete (9)-(19) on the data chart for all tanks you are registering.

- (9) Number tanks sequentially or provide tank numbers recorded by your facility.
- (10) Tank size: provide capacity in gallons.
- (11) Tank contents: provide content code from list #11.
Content (T) & (U): provide also the substance name or Chemical Abstract Number (CAS#) from the CERCLA Hazardous Substance List.
- (12) Tank installation date: month/year format.
- (13) Tank placement: write in U (underground tank) or A (aboveground tank).
- (14) Tank construction: preview list #14 & fill in all applicable codes.
Provide size and content information for each section of a compartmented tank.
- (15) Piping construction: preview list #15 & fill in all applicable codes.
- (16) Leak detection methods: preview list #16 & fill in all applicable codes.
- (17) Tank status/disposal method: choose one code from list #17.
- (18) Gallons left: complete for out-of-service tanks.
- (19) Status date: date tank(s) properly closed in place, removed from service or placed in temporary out-of-service status.
- (20) Provide name & DPR (Department of Professional Regulation) license number of Certified Contractor (Pollutant Storage System Specialty Contractor) who performed tank installation or removal for owner.

Registration forms are received in the Tallahassee office at the rate of 300-600 per week. Please allow 4-6 weeks for processing. If you are in need of assistance, please call the district program office or (904) 487-7077.

(#4) COUNTY CODES

Alachua	01	Flagler	18	Lake	35	Pinellas	52
Baker	02	Franklin	19	Lee	36	Polk	53
Bay	03	Gadsden	20	Leon	37	Putnam	54
Bradford	04	Gilchrist	21	Levy	38	St. Johns	55
Brevard	05	Glades	22	Liberty	39	St. Lucie	56
Broward	06	Gulf	23	Madison	40	Santa Rosa	57
Calhoun	07	Hamilton	24	Manatee	41	Sarasota	58
Charlotte	08	Hardee	25	Marion	42	Seminole	59
Citrus	09	Hendry	26	Martin	43	Sumter	60
Clay	10	Hernando	27	Monroe	44	Suwannee	61
Collier	11	Highlands	28	Nassau	45	Taylor	62
Columbia	12	Hillsborough	29	Okaloosa	46	Union	63
Dade	13	Holmes	30	Okeechobee	47	Volusia	64
De Soto	14	Indian River	31	Orange	48	Wakulla	65
Dixie	15	Jackson	32	Osceola	49	Walton	66
Duval	16	Jefferson	33	Palm Beach	50	Washington	67
Escambia	17	Lafayette	34	Pasco	51		

The attached Storage Tank Registration Form shall be filled out by owners of non-residential storage tanks to comply with the Federal Notification and Storage Tank Registration Program requirements.

REGULATED TANKS are 1) underground storage tanks with capacities of greater than 100 gallons or 2) stationary aboveground tanks with capacities of greater than 550 gallons that store pollutants (defined as petroleum-based products, ammonia, chlorine, pesticides, and derivatives thereof). Regulated tanks will also include underground storage tanks with capacities of greater than 110 gallons that contain hazardous substances, effective 1/1/91; and aboveground storage tanks with capacities greater of than 110 gallons that contain mineral acids (defined as hydrobromic, hydrochloric, hydrofluoric, sulfuric, and phosphoric acid), effective 7/1/91. Storage tanks located at residential facilities, and tanks containing fuel used to generate on-site heating are exempt.

REGISTRATION FEES are assessed on regulated petroleum and hazardous substance tanks which are: 1) In-service, 2) Out-of-service, 3) Abandoned & unmaintained. Fees are no longer assessed only when a tank has been properly closed in place or has been removed from the site. Registration fees are assessed as follows:

- 1) Initial (\$50.00/tank) 2) Renewal (\$25.00/tank/year)
- 3) Replacement (\$25.00/tank) 4) Penalty (\$20.00/tank/year)

Aboveground tanks located at bulk product facilities (terminals) will be assessed fees in accordance with the schedule outlined in Ch.17-762, F.A.C. beginning 10/91.

REGISTRATION INSTRUCTIONS ***Preview the Registration Checklist, and the Registration Codes List carefully. Determine the codes that apply to each tank at your individual facility before completing the registration form. Call & obtain a list of CERCLA Hazardous Substance CAS Numbers if registering hazardous substance tanks. Maintain a copy of each completed form submitted to DER for your file. Submit with your registration a sketch of the tank(s) location in reference to lot or stationary structure on the property.

A NINE-DIGIT DER IDENTIFICATION NUMBER is assigned to each facility after initial registration. It will appear on all billing statements and registration placards. Please reference this number on all correspondence and payments sent to DER - Storage Tank Regulation Section. Questions can be quickly resolved if we can locate your file by this ID number. Submit data revisions or tank removals on a new form or on a copy of the most recently submitted registration form with all corrections marked clearly. Include the facility ID number, sign and date.

DEPARTMENT RULES REQUIRE at least a ten day advance notice (verbal or written) of tank removals, replacements, or upgrades. Notice should be made to the District program office and verification sent to Tallahassee on Form 17-761.900(2). When tank ownership changes, the Department must be notified within ten days of the final transaction. Notice shall include the new owner's name, address, and telephone information, as well as the date of ownership transfer and the new owner's signature on a revised registration form, a letter of acceptance, or a bill of sale. Once facility has been assigned a DER identification number, the ID stays with the facility regardless of ownership. Proper and timely notification of these change helps us from billing you unnecessarily or for incorrect amounts.

Mail all registration forms to: DER/Storage Tank Regulation Section

2600 Blair Stone Road

Tallahassee, FL 32399-2400

Phone: (904) 487-7077

DISTRICT CONTACTS

CENTRAL DISTRICT	(407)894-7555	SOUTH DISTRICT	(813)332-6975
NORTHEAST DISTRICT	(904)448-4320	SOUTHEAST DISTRICT	(407)433-2650
NORTHWEST DISTRICT	(904)436-8300	SOUTHWEST DISTRICT	(813)623-5561

APPENDIX 2 TO ANNEX H TO AFDTC PLAN 32-6
SPILL RESPONSE PHASE II - CONTAINMENT AND COUNTERMEASURES

1. **GENERAL**: This phase consists of actions to be initiated as soon as possible after discovery and notification of a spill. These may include public health protection activities, source control procedures, salvage operations, placement of physical barriers to halt or slow the spread of a pollutant, emplacement or activation of booms or barriers to protect specific installations or natural resources, control of the water discharge from upstream impoundments, and the employment of chemicals and other materials to restrain the pollutant and its effects on water related resources. The specific techniques to be used on any particular pollutant depend on its physical characteristics and which media are affected (air, water, soil). Information will be gathered to support requirements of Appendices 3 and 5 to Annex H.

2. **CONTROL**: Source control of the spill should be accomplished simultaneously with the containment operation. The origin of the material being discharged should be determined and the flow stopped. While each case must be considered individually, some examples of source control are: closing valves to stop the flow and pumping out a holed tanker to prevent further discharge.

3. **CONTAINMENT**: The containment of a spill or release may be performed by person or personnel that are properly trained, have the proper protective equipment, and when it is safe to do so.

a. Containment of spills in water may be accomplished through the use of 18" wide floating boom. The 18" boom is available in a small storage facility located at the mouth of Weekly Bayou. A second containment boom is available for mobile deployment at any location by activating the CE Spill Response Team through the Eglin Fire Department (911).

b. Containment of spills on land can be accomplished by personnel who discover the release to reduce or stop the flow, if they are properly trained and when it is safe to do so. The use of absorbent pads, sandbags, dirt, or physical barriers (e.g., dikes, wood) can be used to prevent or stop discharge the rapid deployment of a response team to close off the route of flow. Absorbent pads, sandbags, or physical barriers (e.g., dikes, wood) can be used to prevent or stop a discharge from spreading to a drain, ditch, or entering into a waterways. Additional containment construction for large land spills will be accomplished by activating the CE Spill Response Team through the Eglin Fire Department (911).

c. Containment is only an interim measure. Clean-up (Appendix 3) must begin immediately to prevent ground absorption and possible contamination of the ground water.

4. **EQUIPMENT**: The following is a list of sources of equipment:

a. For containment construction the CE Spill Response Team, containment construction material, and heavy equipment is available 24 hours a day through the Eglin Fire Department (911).

b. For water spills: 18" boom is available in a small storage facility located at the mouth of Weekly Bayou. A second containment boom (1100) feet is available for mobile deployment to any location on Eglin Reservation by activating the CE Spill Response Team through the Eglin Fire Department (911).

c. Tab A to Appendix 2 to Annex H is a list of equipment stored in the CE spill response trailer available to the OSC for use by the CE spill response team during an emergency.

d. The source and availability of additional specialized equipment can be determined by contacting the Coast Guard Regional Response Coordinator (RRC), New Orleans, (504) 589-6296.

5. **SEWER PLANS**: Sanitary sewer and storm drainage plans showing probable routes of flow are available and can be obtained from 96 Civil Engineer Drafting Office (96 CEG/CECC), Bldg 666, 2-2864. These plans are primarily for use by the OSC and Civil Engineer Spill Response Team. These drawings are not included in the plan due to the large size necessary to show adequate detail.

Tabs:

**A-CEZHH Horizontal Section Emergency Fuel Spill Equipment
Trailer Kit**

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

TAB A TO APPENDIX 2 TO ANNEX H TO AFDTC PLAN 32-6
CEZHH HORIZONTAL SECTION EMERGENCY FUEL SPILL EQUIPMENT TRAILER KIT

REFERENCES: See Basic Plan

GENERAL The purpose of this Tab is to provide a list of equipment available to the CE Spill Response Team.

List of Equipment

<u>NOMENCLATURE (Material)</u> <u>ON HAND</u>	<u>UI</u>	<u>QTY</u>	<u>LOCATION</u>
Pads Trailer,	Bags	8	SRT/Spill Bldg 632
Roll Plastic	Rolls	5	"
Brush Ax	Ea.	1	"
Axes	Ea.	2	"
Picks	Ea.	3	"
Sq. Pt Shovel	Ea.	5	"
Rd Pt Shovel	Ea.	6	"
Sq. Pt Plastic Shovel	Ea.	4	"
Garden Rakes	Ea.	2	"
Sledge Hammers	Ea.	2	"
Hard Hats	Box	1	"
Hip Waders	Pair	3	"
Chest Waders	Pair	1	"
Fire Boots	Pair	3	"
Water Hoses	Ea.	3	"
Nozzles	Ea.	2	"

<u>NOMENCLATURE (Material)</u> <u>ON HAND</u>	<u>UI</u>	<u>QTY</u>	<u>LOCATION</u>
Small Pig Blankets	Box	2	"
Large Pig Blankets	Bag	3	"
Large Coveralls w/Boots and Hood	Box	2	"
X-Large Coveralls w/Boots and Hood	Box	2	"
X-Large Coveralls w/Hood	Box	1	"
Medium Coveralls	Box	1	"
Large Coveralls	Box	1	"
Large Gloves	Pair	72	"
X-Large Gloves	Pair	144	"
3/8 Rope (1300 Feet)	Roll	1	"
Anchor	Ea.	4	"
Floats	Ea.	12	"
Air Pumps	Ea.	2	"
Diesel Pump	Ea.	1	"
19-foot Rescue Boats w/75 HP Motors and Trailers	Ea.	2	"
Boom Trailer w/150-foot, 18-inch Boom	Ea.	1	"
Absorbents Pads	Bags	68	"
18-inch Boom (200 Feet)	Ea.	1	Postal Point
36-inch Boom (250 Feet)	Ea.	1	"
Hard Hats	Ea.	11	Haz-Mat Trailer Locker #1
Chemfab Flash Suits	Ea.	4	"
Level "B" Encapsulated Tychem Suits	Ea.	6	"

<u>NOMENCLATURE (Material)</u> <u>ON HAND</u>	<u>UI</u>	<u>QTY</u>	<u>LOCATION</u>
Coveralls	Pair	6	"
Thermal Underwear	Pair	2	"
Level "B" Encapsulated Chemrell Max Suits	Ea.	4	"
Level "A" Chemrell Max Suits	Ea.	7	Locker #2
Level "A" Chemfab Suits	Drum	2	"
80-foot Sections of Zone Marking Ropes (240 Feet)	Ea.	3	Locker #3
30-foot Sections of Zone Marking Ropes (60 Feet)	Ea.	2	"
Salvage Covers	Ea.	6	"
Boundary Tape	Box	4	"
Sign Supports	Ea.	5	"
Signs	Ea.	6	"
a) Cold Zone			
b) Warm Zone			
c) Hot Zone			
d) Triage			
e) Command Post			
f) Staging Area			
Liquid Spill Vacuum	Ea.	1	Closet
EMS Vests	Ea.	3	"
DECON Vest	Ea.	1	"
Operations Officer Vest	Ea.	1	"
Safety Officer Vest	Ea.	1	"
Water Supply Officer Vest	Ea.	1	"
6 Volt Battery	Ea.	2	"
Safety Lights	Box	1	"

<u>NOMENCLATURE (Material)</u> <u>ON HAND</u>	<u>UI</u>	<u>QTY</u>	<u>LOCATION</u>
Litmus Paper	Box	4	"
Nylon Rope	Box	1	"
Flag Stands	Ea.	6	"
Sand Bags	Bag	1	"
Black Rubber Gloves (12 Pair)	Box	1	"
Green Sol-vex (3 Pair)	Box	1	"
Kappler Level "A" Suits	Ea.	5	"
Duct Tape	Rolls	15	"
Silver Shield Gloves (9 Pair)	Box	1	"
Flashlight	Ea.	1	"
"D" Battery	Box	1	"
9 Volt Battery	Box	1	"
Radiation Monitors	Ea.	2	"
Chemical Classifiers	Ea.	2	"
Electronic pH Tester	Ea.	1	"
Caustic Neutralizer (42lbs)	Bag	1	"
Acid Neutralizer (42 lbs)	Bag	1	"
Joint Compound (42 lbs)	Bag	1	"
3/8" Cotton Rope (600 Feet)	Ea.	1	"
DECON Pools	Ea.	8	Floor
Training Pools	Ea.	2	"
DECON Shelter	Ea.	1	"
Chairs	Ea.	8	"

<u>NOMENCLATURE (Material)</u> <u>ON HAND</u>	<u>UI</u>	<u>QTY</u>	<u>LOCATION</u>
Chlorine "A" Kit	Kit	1	"
Chlorine "B" Kit	Kit	1	"
Drain Stoppers	Box	2	"
Trash Bags	Box	1	"
Various Hand Tools (Red Tool Box)	Box	1	"
4500 Air Bottles	Ea.	6	"
Traffic Cones	Ea.	19	"
a) 10 Large			
b) 4 Medium			
c) 5 Small			
Boot Bags	Bags	4	"
a) 9 Pair Size 13			
b) 8 Pair Size 12			
c) 9 Pair Size 11			
d) 8 pair Size 10			
Air Packs	Ea.	4	Metal Shelves
Leak Kit (Orange Box)	Ea.	1	"
Air Mask	Ea.	2	"
Flood Lights	Ea.	3	"
Cargo Straps	Ea.	2	"
Silver Shield Gloves	Box	1	"
Plastic Sheeting	Box	2	"
Air Pump for the DECON Tent	Ea.	1	"
Patch and Plug Kits	Kit	6	"
a) 1 - "A"			
b) 2 - "C-1"			
c) 1 - "C-2"			
d) 1 - "E"			

e) 1 - "F"

<u>NOMENCLATURE (Material)</u> <u>ON HAND</u>	<u>UI</u>	<u>QTY</u>	<u>LOCATION</u>
Brass Tools kit	Ea.	1	"
Grounding Rod	Ea.	1	"
Battery Charger w/ 3 Batteries	Ea.	1	Desk Top
AIM 3 Gas Meter	Ea.	1	"
Weather Monitor	Ea.	1	"
Chemical Chart	Ea.	1	"
Maps	Ea.	7	"
a) Water			
b) Gas			
c) Electric			
d) Sewer			
e) Liquid Fuels			
f) Crash Grid Map			
g) Aux. Fld. Maps			
Hard Bristle Street Broom	Ea.	3	Wooden Storage Box
Flat Shovel	Ea.	1	"
Dome Clamps	Ea.	5	"
Short Handled DECON Brushes	Ea.	9	"
50-foot Sections of Garden Hose (100 Feet)	Ea.	2	"
2 1/2" Male to Air Bottle Connection	Ea.	1	"
4-gallon Plastic Buckets	Ea.	3	"
Round Tip Shovels	Ea.	3	"
Sweep Broom	Ea.	1	"
Mops	Ea.	2	"
20-ton Hydraulic Jack	Ea.	1	"

25-foot Section of Air Hose	Ea.	1	"
<u>NOMENCLATURE (Material)</u> <u>ON HAND</u>	<u>UI</u>	<u>QTY</u>	<u>LOCATION</u>
3-gal Plastic Bucket	Ea.	3	"
Scott Permissible Cartridges for Ammonia and Methlyamine	Ea.	14	Station Three Haz-Mat Shed
Drum Wrenches	Ea.	3	"
SCBA Cases	Ea.	36	"
Chemfab Challenge 6400 Level "A" TECP Suit	Ea.	4	"
Haz-Mat Boots	Pair	39	"
a) 11 - Size 10			
b) 15 - Size 11			
c) 9 - Size 12			
d) 4 - Size 13			
Edmont PUA Gloves	Pair	7	"
150 lb Cylinder Caps	Ea.	6	"
Scott Twin Cartridge Respirator	Ea.	8	"
Scott Chlorine, Hydrochloride, Sulfur Dioxide Formaldehyde, Chlorine Dioxide Cartridge	Ea.	8	"
Scott Ammonia Methylamine Cartridges	Ea.	18	"
Scott Organic Vapor, Chlorine, Hydrachloride, Sulfur Dioxide, Radioactive Daughters	Ea.	9	"
Willson- Smith Smoke Fit Test Kit	Ea.	1	"
Gas Vapor Cartridge Retainers	Sets	23	"
Duct Tape	Rolls	21	"
3M High Efficiency Filters	Ea.	150	"
3M Organic Vapor/ Acid Gas Cartridges	Ea.	30	"
Dual Cartridge Half Mask Respirator	Ea.	1	"

Hazard Guard Coveralls Size XL	Ea.	23	"
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<u>NOMENCLATURE (Material)</u> <u>ON HAND</u>	<u>UI</u>	<u>QTY</u>	<u>LOCATION</u>
--	-----------	------------	-----------------

Orange Two-Piece Training Coveralls	Ea.	2	"
-------------------------------------	-----	---	---

Lifeguard Level "A" Training Suit	Ea.	1	"
-----------------------------------	-----	---	---

Fully Encapsulating Training Suits	Ea.	2	"
------------------------------------	-----	---	---

Level "B" Training Suit	Ea.	1	"
-------------------------	-----	---	---

Tychem Level "B" Coverall Size XL	Ea.	50	"
-----------------------------------	-----	----	---

Tychem Level "B" Coverall Size LG	Ea.	41	"
-----------------------------------	-----	----	---

Kappler Lifeguard Level "A" Suit Size LG	Ea.	14	"
--	-----	----	---

Kappler Lifeguard Level "A" Suit Size XL	Ea.	31	"
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APPENDIX 3 TO ANNEX H TO AFDTC PLAN 32-6
SPILL RESPONSE PHASE III - CLEANUP AND DISPOSAL

1. GENERAL:

a. This phase includes those actions taken to remove the pollutant from the water or land. Removal must proceed as rapidly as circumstances permit, especially on large land spills where the substance can percolate into the ground and contaminate the ground water. Although several methods are available for combating a pollutant on a water surface, the only practical solution in this region is to physically remove the pollutant. Chemical agents and dispersing agents will only be used as a last resort, and then only with the concurrence of the EPA and the Coast Guard.

b. The method used to remove the pollutant will depend on a number of factors including the area involved, the hazards associated with the pollutant, and the availability of equipment and materials. Although some methods are better than others, most have limitations and disadvantages which must be considered. The following is a list of clean-up methods:

(1) **Mechanical removal.** This method can be used for both land and water spills.

(a) **Land spills.** If the substance has been contained, direct pumping into a collection tank if possible. Exercise caution when a flammable material is involved. Explosion proof motors/pumps should be used. Contaminated soil or beach sand can be loaded on a truck and hauled to the Petroleum Treatment Facility (PSTF) or another disposal site approved by the Environmental Compliance Division (AFDTC/EMC). The PSTF operating hours are from 0615 to 1530 Monday through Friday. The point of contact for the PSTF will be Bruce Stippich (882-6282 ext. 337 or Judy Ramsey 882-6282 ext. 502. Responsible organization of contaminated soils will provide a statement letter verifying contaminates, amount of soil to be disposed of and provide AFDTC/EMC with reimbursable JOCAS number or JON number.

(b) **Water Spills.** The removal of pollutants from a water surface is difficult. The mechanical process called "skimming" removes the surface layer of water and pollutant floating on it. Generally, skimmers are useful only in small, calm bodies of water. The rate at which these devices will collect is determined by the thickness of the oil layer, the rate at which the oil-water mixture can be separated, and the storage capacity of the tank. CE has an oil skimmer available for use. The skimmer is kept in the CE spill response trailer. The oil-water mixture collected by the skimmer should be drained through an oil/water separator connected to a sanitary sewer.

(2) **Physical Absorption.** Physical absorption materials such as pads, straw, hay, and shredded foam can be distributed over a spill area, both on land and water, with relative ease. Sand can be used to absorb spills occurring on hard surfaces, such as the aircraft parking ramp and taxiways. These materials are readily available and can be used with minimum damage to the environment. The major limitation of absorption, however, is the spent, soaked material must be collected and properly disposed. The collection of the materials would be especially difficult in a large body of water like Choctawhatchee Bay. These

materials cannot be collected by pumping as they will rapidly clog the pumps. Therefore, the means of containment and subsequent removal must be considered prior to the use of absorbent material.

(3) Chemical Agents. EPA approval must be obtained prior to the use of any chemical agents. Currently, Eglin does not have any chemical agents on hand and is unlikely to use them.

(4) Burning. The burning of POL on water will leave a residue approximately 1/8 inch thick. Burning agents can be used to improve the combustibility if they do not in themselves, or in combination, increase the pollution hazard. Burning would only be effective on thick slicks of freshly spilled oil in calm waters. Shoreline property and boats must be protected. State and local health and fire protection agencies must approve the burning. It is not a recommended clean-up method.

(5) Biological Degradation. Biological agents are those bacteria and enzymes isolated, grown, or produced for the specific purpose of encouraging or speeding biodegradation to mitigate the effects of a spill. Biological agents may be used to treat spills only when such use is approved by the appropriate state and local public health and water pollution control officials.

2. DISPOSAL OF COLLECTED MATERIAL: Disposal of collected material is an important aspect of any clean-up operation. Petroleum products or other obnoxious or hazardous materials removed from the water may eventually find their way back to cause more pollution when carelessly disposed on nearby land areas. Serious pollution of the water table is an additional hazard inherent in this type of disposal.

a. All transfers of waste to DRMO must be conducted under the direction of and processed through the Environmental Management and Compliance Division. Before turn-in of hazardous waste, the accumulation point manager should contact the Environmental Management and Compliance Division, 6282, ext. 253, for packaging and disposal instructions.

b. It is the responsibility of all generators to provide the Environmental Flight with as much information as possible concerning waste streams generated within their organizations.

APPENDIX 4 TO ANNEX H TO AFDTC PLAN 32-6
SPILL RESPONSE PHASE IV - RESTORATION

GENERAL: This phase includes those actions taken to restore the environment to its pre-spill condition. In all cases, the agency responsible for the pollution incident will be required to pay for the restoration.

- The assessment of secondary damages resulting from a spill, such as the destruction of marine life, will require coordination with other agencies.

- In most cases the agency evaluating the damage can also recommend action to correct the situation. Although some restoration may be accomplished using AFDTC resources, extensive or technical projects must be accomplished by commercial contract.

- Management of site restoration will be the responsibility of EM. Below is a summary of tasks and reports involved in a contaminated site clean-up.

- Contamination Assessment Report. This report analyzes the extent of contamination through a combination of interviews, soil vapor tests, and groundwater monitoring wells.

- Remedial Action Plan (RAP) This report outlines remedial action alternatives and it is submitted to FDER for review and approval. The RAP shall include a preliminary design, including equipment sizing for the preferred remediation system. Upon approval by the state FDEP, site clean-up work can begin.

- Site Rehabilitation Completion Report. This report documents that no further action is required to close the site. It is submitted to the State DER for review and approval.

APPENDIX 5 TO ANNEX H TO AFDTC PLAN 32-6

SPILL RESPONSE PHASE V - RECOVERY OF DAMAGES AND ENFORCEMENT

GENERAL: Recovery of damages. This includes a variety of activities, depending on the location of, and circumstances surrounding, a particular spill. Recovery of Federal clean-up costs for damages to Federal, State or local Government property is included. Enforcement activities under appropriate authority, such as the Resource Conservation and Recovery Act (RCRA), Superfund Amendment and Reauthorization Act (SARA), and state and local statutes or ordinances are also included. The collection of scientific and technical information to serve as a basis for research and development activities and for the enhancement of our understanding of the environment may also be considered. It must be recognized that the collection of samples and necessary data must be performed at the proper times.

- **Enforcement.** Uniform enforcement procedures have been established by the National and Regional Contingency Plans. The collection of information and samples must be performed for the purpose of later use in identifying the party responsible in clean-up cost recovery, damage recovery, and civil and criminal enforcement actions under appropriate Federal statutes. Time is of great importance since wind, tide, and current may disperse or remove the evidence and witnesses may no longer be available. Thus, during the phases of discovery and notification, containment and countermeasures, clean-up and disposal, and restoration, the OSC must take the necessary action to put counsel on notice of the event and to ensure that information, records, and samples adequate for legal and research purposes are obtained and saved for future use.

- **Claims.** The AFDTC/JA will determine the legal ramifications of any civil damage incurred as a result of a USAF caused spill and brief the AFDTC/CC on his findings and recommendations. Initial emergency response costs, long-term clean up costs and compensation for damages can be recovered by the Air Force under applicable environmental, procurement and tort statutes. Also, the Air Force can be the subject of federal, state, and local enforcement actions under applicable environmental statutes. As such, it is imperative that evidence is collected and preserved from the outset in order to protect the Air Force's interests. This could include setting up special accounting procedures for tracking expenditures associated with the cleanup, taking statements, photographing the scene and collecting and analyzing chemical samples. The AFDTC/JA will assess the Air Force's liability for any tort claims against the Air Force and advise AFDTC/CC and 96 ABW/CC.

APPENDIX 6 TO ANNEX H TO AFDTC PLAN 32-6
SPILL RESPONSE PHASE VI - SPILL PREVENTION CONTROL AND
COUNTERMEASURES (SPCC) PLAN

1. GENERAL:

a. **SPCC Plan.** The SPCC portion of this plan primarily pertains to spill prevention. It includes a general discussion of the major types of spill prevention procedures and equipment available to base facilities. The contingency portion of this plan includes procedures for detection, reporting, containing, clean-up, and disposal of spills involving oils or hazardous substances.

b. **Site Specific Spill Plans.** The first step in spill prevention is to identify all potential spill sites on base. Tab A to Appendix 6 to Annex H lists Categories and Quantities of hazardous materials which should be identified and evaluated for pollution potential. It is the responsibility of all activities to develop site specific spill prevention, control, and countermeasures plans for all sites which meet or exceed the screening quantities. The plans should outline spill prevention control and countermeasures procedures, methods, and equipment. Tab B to Appendix 6 to Annex H is hazardous material worksheets which list information needed to develop an adequate spill plan.

2. SPILL PREVENTION: ~~The general~~ mechanisms of spill prevention practiced at Eglin AFB are briefly discussed below.

a. **Secondary containment:** Secondary containment is the physical containment or capture of a spill, thus preventing or minimizing its release and subsequent effect on the environment. This is typically accomplished through the use of physical structures such as dikes, curbs, berms, depressed areas, storage basins, sumps, drip pans, liners, oil/water separators, double walled piping, and waste collection systems. Additional examples of remote secondary containment methods are trenches, drains, and overflow structures. These items are designed to direct the spill to a remote site where it can be detained prior to collection and/or treatment. Small quantities of floating spill material are commonly contained via oil booms or weirs with oil baffles (oil/water separators). Those items typically employed on Eglin AFB for secondary containment include dikes, curbs, oil/water separators.

b. **Visual Inspection:** Visual inspections consist of touring or patrolling the potential spill site to detect spills, or other conditions that could result in a spill. These include routine inspections performed by the operating and supervisory personnel.

(1) Routine inspections include visual observation for detection of leaks and spills at all tank farms, remote secondary containment facilities, chemical storage facilities, material transfer areas, pipelines, and loading/unloading areas. The site-specific SPCC plan should outline specific inspection tasks and frequencies.

(2) Inspection results should be logged on separate data sheets and maintained by the shop foreman or organizational representative for a minimum of three years. Data sheets should be clear, concise, and easily accessible for review by regulatory agencies.

c. **Preventive Maintenance:** Preventive maintenance, as a part of the SPCC program, involves the periodic lubrication, adjustment, and replacement of worn parts in all equipment where failure could result in a spill of oils or hazardous substances, or impede response efforts. This includes the implementation of Standard Operating Procedures (SOP) and Recurring Maintenance Programs (RMP) at potential spill sites.

d. **Housekeeping:** Good housekeeping is the practice of maintaining a clean and orderly work environment; thereby, reducing the possibility of accidental spills caused by mishandling of equipment and materials, and facilitating the detection of spills and leaks.

e. **Material Compatibility:** Material compatibility refers to the compatibility of oil and hazardous substances with the materials of construction that store or transport them; compatibility of storage or transfer devices with their environment; and compatibility of different substances upon mixing.

f. **Security:** Security involves the deterrence of unauthorized, unknowing, or accidental entry of personnel, animals, or vehicles into potential spill areas. Mechanisms for providing security include routine security patrol in vehicles or on foot, fencing, lighting, vehicular traffic control, guardhouses at main entrance gates where all visitors are required to sign in and obtain a pass, secured or locked entrances to the sites, locked or otherwise secured drain valves and pumps for oil and chemical storage tanks, loading and unloading facilities, television monitoring of areas most susceptible to a spill, and the use of warning signs to prevent unknowing entry.

g. **Monitoring:** Monitoring entails the prevention of oil and hazardous substance spills by observing operational conditions that could indicate or result in a spill, and early detection of existing spills by monitoring environmental conditions. Secondary or back-up monitoring should be used where acute health hazards are a possibility.

h. **Chemical Information:** Each section on base authorized to store and use materials and oils, as defined in this plan, will maintain a material safety data sheet (MSDS) for each different chemical.

i. **Training:** All personnel involved with the management and handling of oil and hazardous substances must be trained in accordance with OSHA 1910.1200 HAZCOM requirements. The OSHA 1910.1200 HAZCOM training program will consist of formal training conducted by Military Public Health (96 MDG/SGPM) during new employee orientation, and on-the-job training incorporated into existing fire and safety training programs. It is the supervisor's responsibility to schedule their new employees, who might handle oil and hazardous substances, for 96 MDG/SGPM orientation training. Training programs should include the following key features:

- (1) Potential health effects from the oil and hazardous substances;
- (2) Applicable first aid procedures to be used following exposure;
- (3) Protective equipment requirements and procedures for using equipment;

- (4) Evacuation procedures;
- (5) Combustibility of spill material and potential for flash back along vapor trails;
- (6) Applicable fire fighting procedures and special hazards of combustion products;
- (7) Reactivity of spill material with common materials including water;
- (8) Use and maintenance of all alarms and monitoring equipment associated with spill prevention or response;
- (9) Initial notification procedures described in this plan.
- (10) Immediate spill response actions including the location of pump controls and valves to stop spill flows, and the location and use of fire extinguishers, sorbents, neutralizing agents and other immediate spill response procedures as appropriate.
- (11) The many aspects of visual inspection associated with the various areas.
- (12) The use of the SPCC plan, spill prevention aspects, spill response organizations including the function of the OSC, designated spill response procedures, and the location of spill response equipment.
- (13) Air Force personnel assigned to post-emergency clean-up do not require the training in Tab C to Appendix 6 of Annex H but must have training in all the areas listed below:
 - 1. Emergency action plans [29 CFR 1910.38(a)],
 - 2. Respiratory protection (29 CFR 1910.134),
 - 3. Hazard communication (29 CFR 1910.1200), and
 - 4. Specific training in the safe handling of the hazardous substance(s) involved.

In addition to HAZCOM, All personnel involved with hazardous material/waste emergency spill response and cleanup require some level of HAZWOPER training in accordance with OSHA 1910.120. More detailed information on the different levels of emergency responder and training requirements is listed in Tab C to Appendix 6 to Annex H. 96 CEG/CEF and the AFDTC/EMC periodically schedule OSHA 1910.120 training classes for their emergency spill response personnel.

- j. All organizations storing or handling oil or hazardous polluting substances will ensure policies have been developed to ensure their activities meet training requirements of this section.
- k. Air Force and non-Air Force personnel who are skilled in the operation of certain equipment (cranes, earth movers, etc.) and who are needed temporarily to perform immediate emergency support are not required to meet the training described in this policy. However, these personnel should be given an initial briefing prior to their participation in any emergency response. The

initial briefing should include *instructions* on the wear of personal protective equipment, the chemical hazards involved, and the duties to be performed.

Tabs:

A-Categories and Quantities of Spill Contingency Sites

B-Hazardous Material Worksheet

C-OSHA and EPA Training Requirements

TAB A TO APPENDIX 6 TO ANNEX H TO AFDTC PLAN 32-6
CATEGORIES AND QUANTITIES OF SPILL CONTINGENCY SITES

REFERENCES: See Basic Plan

GENERAL: The following is a list of categories and quantities which should be identified and evaluated for pollution potential. It is the responsibility of all activities to develop site specific spill prevention, control, and countermeasures plans for all sites which meet or exceed the screening quantities.

<u>CATEGORY</u>	<u>SCREENING QUANTITY</u>
Extremely Hazardous Substances	Greater than or equal to the TPQ as listed in Exhibit 1 to Tab D to Appendix 1 to Annex H
(The TPQ is the total quantity of the EHS present on the installation at any one time regardless of location, number of containers, or method of storage. This determination must also take into account the amount of an EHS present in mixtures or solutions in excess of one percent by weight.)	
Hazardous substance (and characteristic wastes as defined in 40 CFR parts 261.20 through 261.24)	Greater than or equal to 55 gallons
Underground Storage Tanks	Contain more than 42,000 gallons of POL
Above ground Storage Tanks	Contain more than 1,320 gallons or any container with a capacity of 660 gallons of POL
Hazardous waste stored in a permitted facility, satellite, or accumulation point	Any amount
PCBs	Any quantity of a material containing a concentration of greater than or equal to

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TAB B TO APPENDIX 6 TO ANNEX H TO AFDTC PLAN 32-6
HAZARDOUS MATERIAL WORKSHEET

REFERENCES: See Basic Plan

GENERAL: The following worksheet lists information needed to develop an adequate spill plan.

HAZARDOUS MATERIALS WORKSHEET #1

- | | | |
|----------------------------|------|---|
| Source of Information | (1) | Installation _____
Evaluator/Organization _____
Date Completed _____ |
| Site Visit | (2) | Point of Contact/Organization/Phone _____
_____ |
| Grid Map | (3) | a. Facility number _____ Grid Coordinates _____
b. BEE Workplace Identifier # (WPID) _____ |
| Site Visit | (4) | Occupancy of Facility: _____ Number: Day _____ Night _____ |
| Site Visit | (5) | Hazardous material present: _____ |
| MSDS or Service (CASE) | (6) | (For hazardous substances) Chemical Abstract Consolidated
Number: _____ |
| Chemical List Attachment 6 | (7) | CERCLA RQ: _____ UN#: _____ |
| MSDS | (8) | Potential Hazards:
Toxic _____ Corrosive _____ Fire Explosion _____ Reactive _____ |
| MSDS or HAZMAT | (9) | Important physical characteristics (reference MSDS data courses)

Water: mix _____ heavier than air _____
float _____ lighter than air _____
sink _____ |
| Site Visit | (10) | Has there been a release within the past 12 months? Y/N |
| Date: _____ | | |

HAZARDOUS MATERIALS WORKSHEET #1 (Continued)

Site Visit

(11) Site Description:

Container Type (Tank, Drum, Pipe, Etc) _____

Container Construction Material _____

Quantity (gals/lbs) _____

Frequency container(s) changed/filled _____

Number of Containers _____

Location narrative/comments _____

Site Visit

(12) Maximum quantity present: _____

Average daily quantity: _____

Normal pipeline pressure (if applicable) _____

Probable flow
quantity: <10gpm ___ 10-100gpm ___ >100gpm ___

Site Visit (13) Identify
Source: _____

Identify who/how material is delivered: _____

Frequency of delivery: _____

Estimated storage time: _____

How is material stored? _____

Purpose of use: _____

How is it disposed? _____

Installation
Maps

(14) Probable Spill Route _____

Flow to oil water separator? Y/N _____

Discharge to sanitary or storm sewer? Y/N _____

Environmentally sensitive areas on flow path? Y/N _____

HAZARDOUS MATERIALS WORKSHEET #1 (Continued)

Adjacent ground cover (check) -
sandy, clay, grass, concrete or asphalt _____

Reference
Attachment 9

(15) Secondary Containment _____

(15)-(29) Dike Material _____

Dike Height _____

Dike Area (l x w) _____

Dike Volume - if known _____

Dike floor material _____

Site Visit

(16) Other secondary containment (check for booms,
berms, retaining walls, curbing, culverts,
gutters, weirs, spill diversion ponds, retention
ponds, absorbent materials, other) _____

Site Visit

(17) Improvements needed: (provide deficiency
worksheet summary). _____

Site Visit

(18) Visual Inspection: _____
External _____
Internal _____

Site Visit

(19) Preventative Maintenance (Procedures/Frequency)

Site Visit

(20) Leak testing sites (date/results) _____

Site Visit

(21) Housekeeping
Aisle Space _____ Area clean _____
Proper storage of chemicals _____
Other comments _____

Site Visit

(22) Material compatibility (liners, protective coatings or cathodic protection):

Internal _____

External _____

Site Visit

(23) Security:

Fences and locked gates _____

Traffic barriers _____

Locked valves and pump controls _____

Lighting _____

Other _____

Site Visit

(24) Monitoring (Type/Interlocks):

Liquid level _____

Flow meters _____ Flow totalizers _____

Material inventory _____

Ground water (for underground sites) _____

Other _____

Site Visit

(25) Detailed visual inspection and comments:

Site Visit

(26) Emergency equipment available on site. _____

HAZARDOUS MATERIALS WORKSHEET #1 (Continued)

H.6.B.4

Site Visit

(27) Release/spill prevention and response training received (HAZCOM/HAZMAT)._____

Site Visit

(28) Site sketch: (Put a site sketch on back): take photographs and log brief description of each photograph_____

Site Visit

(29) Summary of deficiencies:_____

Include locations of high risk facilities, and mission impacted areas/facilities.

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TAB C TO APPENDIX 6 TO ANNEX H TO AFDTC PLAN 32-6
OSHA AND EPA TRAINING REQUIREMENTS

GENERAL: The following Table lists OSHA and EPA training requirements.

FEDERAL TRAINING REQUIREMENTS

RCRA

Purpose of Training:

To ensure employees perform their jobs in a manner compliant with federal, state, and local requirements.

Regulatory citation:

40 CFR 264.16 and 265.16

Personnel Covered:

All 90-day accumulation point users and all primary, alternate satellite accumulation point managers, and personnel working at base MSD Facilities. Also required for all personnel who may be tasked with responding to releases of hazardous waste.

Initial Training Requirements:

Referenced personnel must receive training on how to properly perform their duties and how to respond to emergencies prior to working with hazardous waste and then annually. There is no mandated class length requirement.

Update Training Requirement:

Annually

UNCONTROLLED SITE TRAINING

Purpose of training:

Training is required to protect the health and safety of employees.

Regulatory Citation:

29 CFR 1910.120 (e)

Personnel who work at sites where wastes/materials potentially encountered are unknown. These include hazardous substance cleanup at CERCLA Sites and Corrective Actions at RCRA Sites.

General Site Workers - 40 Hour plus 3 days OJT.
Occasional Site Workers - 24 hours plus 1 day OJT
Limited Site Workers - 24 hours plus 1 day OJT.
Managers and Supervisors - General Site worker plus additional 8 hours.

Annual 8-hour Refresher Training

To protect the safety and health of the employee

29 CFR 1910.120 (p)

All personnel who handle Hazardous Waste at TSD Facilities to include the site Emergency Response teams.

TSD Facility Workers must receive 24 hours of training. Response teams must receive training as outlined in 29 CFR 1910.120 (p)(8).

Eight hours for TSD facility workers. Response teams require refresher training applicable to their roles outlined in 29 CFR 1910.120 (q).

EMERGENCY RESPONSE TRAINING

Purpose of Training:

To protect the health and safety of emergency response personnel.

Regulatory Citation:

29 CFR 1910.120 (q)

Personnel Covered:

Personnel who respond to releases of unknown hazardous materials/waste. Complexity of training is dependent on the responders role at the incident, i.e. Awareness level, Operations Level, Technical Level, Specialist Level or Incident Commander. Post Emergency Response Team Training requirements are also covered.

Initial Training Requirements:

Awareness - As required
Operations - 8 hours
Technician - 24 hours
Specialist - 24 hours
On-Scene Command - 24 hours

Update Training Requirements:

Requirements vary with experience and specific job requirements. Employee must annually demonstrate competency applicable to their role in the response activity.

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

APPENDIX 7 TO ANNEX H TO AFDTC PLAN 32-6
APPROVED WASTE ACCUMULATION POINT LOCATIONS

33 Fighter Wing

<u>Unit ID</u>	<u>Blg #</u>	<u>Point of Contact</u>	<u>Phone</u>	<u>Waste Stream</u>
33OSS	1315	Larry Houser	34314	None listed
58FS	1343	Msgt David L Earl	34352	Batteries/POL
58FS/MAUS	1343	Ssgt James Kegan	34368	Batteries Aerosols & Sealants
58FS/MAUS	1343	Ssgt John F Kustron	34368	Batteries Aerosols & Sealants
58FS/MAUI	1343	Ssgt Jame Kegan	34368	POL
58FS/MAUI	1344	Ssgt John Kustron	34367	POL
58FS/TAMS	AGE	Ssgt David J Bernyk	34361	POL
60FS	1344	Msgt William F Batteas	34445	Batteries/POL
MANSP	1278	Tsgt Bobby Jenkins	21443	Brks/asbestos, pnt rated matrl
MAPT	1441	MSgt Gary Burns	34215	POL
MAP	1352	MSgt Gary Burns	34214	POL
MAG(AGE)	1353	SRA Keith Young	34164	Brks/asbestos
MAG(AGE)	1414	SRA Keith Young	31469	Anti freeze fuel fltrs
MAG(AGE)	1384	SRA Keith Young	31469	Batteries
MACP(Hydr)	1354	Smsgt Gantt	34179	POL
LGMCE(Bat)	1354	Tsgt Steven Langevin	34173	Batteries
MAV(Avionics)	1328	Msgt Ward	34158	Batteries
MAR	1360	Ssgt Sprouse	34192	POL
MS/MAM	1318	Ssgt Chris Oehler	34218	POL parts washer sludge, rags to laundry
MS/MACF	1339	SSgt Findley	34175	POL
MS/CCQW	1353	Ssgt William Pryse	34136	Pnt & Slvnt/close to blg 1353
MS/MAFS	1386	Tsgt Rodriquez	34189	Pnt & paper
MS/MAFS	1401	Tsgt Schmidt	34189	Dust Rags Pnt, & pnt fltrs
MS/MAFS	1386	Msgt Rodriquez	34189	Dust Rags Pnt, & pnt fltrs
LSSLSTD	1318	Ssgt Cevric Barron	34249	POL
MS/MAFM	1352	Msgt Roberts	34184	Plastic media dust & solder
LSSLSWM	1352			gasfilter/decon
LG/EN	1361	Wade Olsen	34257	everything
60 FS/MAOC	Flt Ln	Ssgt D C Jones	34454	
60 FS/MAFI	Hgr 21	SSgt Shively	34454	
60 FS/MAFS	1344	Tsgt Richardson	34455	>55 gal of NiCd, Hg, Li Bltrs, Pb seals, Aerosols
60 FS/DOL	LifeSup	Tsgt Hagg	34475	Batteries, Hg, Li, NiCd, Aerosols & filters
33 MS/MAVT	1328 suite 1	SSgt Ellen E. Farnham	34151	solder & Li batteries
33 MS/MAVT	1328 suite 104	TSgt Frank D Hnat	34154	solder & Li batteries
33 MS/MSCH	1413	SSgt Partlow	34136	aerosol cans, adhesives, slvnts
33 MS/MEWS	1328	SSgt Montanez	34157	Radar coolant & hydraulic fluid soaked absorbents

728 th

<u>Unit ID</u>	<u>Bldg #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
LGP(TRANS)	3057	SSgt Mark S Kanocz	36601	Batteries & POL
LGP(TRANS)	3057	SSgt Mark S Kanocz	36601	Batteries & POL aerosol puncturing
LGT(TRANS)	3073	Tsgt Chester Udell	36472	Batteries Brakes/paint & MEK/antifreeze
LGT(TRANS)	3072	Tsgt Chester Udell	36374	Aerosol puncturing
LGP	3057	Tsgt Robert Melancon	36490	Batteries IP/aerosol puncturing
LGT	3057	Ssgt Mark A Johnson	36472	Batteries IP
LGKG	1425	Ssgt Paul R Dodds	34542	Batteries IP

16 MXS

<u>Unit ID</u>	<u>Blq #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
LGMSH	421pkg lot	Tsgt Timothy M Stark	23513	Everything
16MXS/LGMQAF	421 rm 201	MSgt Robert Eberhardt	23606	MEK rags, cheese cloth
LGMSH	422 rm 145	Tsgt Timothy M Stark	23153	Aerosol Pnt/Sealant
LGMQAS	127	Ssgt Thomas A Kelly	22808	paints thinner & MEK painting
LGMQAS	127	Ssgt Thomas A Kelly	22808	filters w Chromium
LGMQAS	127	Ssgt Thomas A Kelly	22808	Rags
LGMQAS	416 dip tank rm	Ssgt Thomas A Kelly	22808	paint stripper
LGMQAS	416 dip tank rm	Ssgt Thomas A Kelly	22808	Rags

20th SPS

<u>Unit ID</u>	<u>Blg #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
LG	8633	Bill Childers	37715	Supply
MAOM/C	8640	Charles L Corlett	37845	PCB capacitors
CE	8641	Richard D Carter	37829	Paint & Aerosol puncturing
LG	8640	Don A Inns	37789	1-1-1 trichloroethylene wipers

96 TRNS

<u>Unit ID</u>	<u>Big #</u>	<u>Primary</u>	<u>Phone #</u>	<u>Waste Stream</u>
VEHOPS	509	Sgt Sumner	25236	POL
TRFMNG	613	Jim Boles	25279	not listed
GENMNT	500	Harry Cintron	24513	Fuel fltrs, aerosols, charcoal (sampled)
SPLMNT	500	Sgt Brousseau	24744	POL
	500	Tsgt White	22128	asbestos brakeshoes
	538	Phil Forbes	25682	Paint products/byproducts/aerosols
CUSSRV	561	Sra Milton	22722	not listed
	562	Sgt Quick	22043	not listed
BASEMNT	693	Sgt James D Harris	23162	fuel filters/pads/brake & clutch linings
COMBAT	1400	SRA Tuggle	22488	not listed
	500	Harry Cintron	24513	Various aerosol products

96CG/MDG/FPC/SUP/DRMO

<u>Unit ID</u>	<u>Blq #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
Federal Prison	876	A L Rankin	22318	perchloroethylene
Federal Prison	593	Wayne Graham	28522X234	Paint
96 MDSS/SGSLF	Hospital	Danny Rudolph	27515	Medical Wastes
96 ABW/MU	Museum	Ken Wood	24972	Paints Slvnts
96 CG/SCXR	380	Sgt James T Mitchell	24385	toner & batteries
96 CS/SCSSCL	249 rm 113	David W Manson (GS-11)	22244	NiCd batteries
96 LG/LSFDM	1392	Paul Voyles	28343	GAS msk fltrs & decon kits
96 SUPS/LGSDS	610	Gerald Holloway	2-2370	Various supply items
DRMO-VHH	524	L J Bonner	2-2822	Permitted Storage

46 TEST WING

<u>Unit ID</u>	<u>Blq #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
39 FS	103A	SSgt Kenneth Coulter	25629	Hg batteries
39 FS	103A	SSgt Kenneth Coulter	25630	Li batteries
39 FS	103A	SSgt Kenneth Coulter	25631	NiCd batteries
39 FS	103A	SSgt Kenneth Coulter	25632	Alkaline batteries
39 FS	103A	SSgt Kenneth Coulter	25633	Aerosols
40 FTS	102A	Ssgt Russel	22900	Hg, Li, & NiCd batteries
40 FTS	102A	Ssgt Russel	22900	Aerosols
46 OSS	32	SrA Parker	23165	Hg (Mercury)
DyneCorp	55	W Adams	24352	Batteries NiCd/Li/Hg 3 cntnr total < 55 gal Range C-52A JP-8, Mtr oils, antfrz, POL absrbnt pds, arsl efflnts (puncturer)
Chicken Little		Thomas Caldwell	29665	

46 TEST WING

<u>Unit ID</u>	<u>Blg #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
LGMF	128	SSgt Mrvica	28491	aerosols
LGMFD	127	Hutto	22241	acetone
LGMFE	32	Ssgt Wilke	22640	rags
LGMFG	127	Hickman	23302	batteries
LGMFH	72	Mr. Holley	25027	paint/thinners/abrasives/masking/aerosols/fir sweep
LGMG	101 & 105	George Carlough	23961	rags/thinner/refridgerant/MEK/aerosols/slvnts/filrs
LGMG	101	George Carlough	23961	Tank bottom sludge from part cleaner
LGMG	101	Alternate	23048	Tank bottom sludge from part cleaner
LGMWE	1208	Sra Stabler	25681	aerosols
LGMWI	1238	Ssgt Varieur	22287	MUNITIONS
LGMWI	1240	Ssgt Varieur	22287	MUNITIONS
LGMWI	1251	Ssgt Varieur	22287	MUNITIONS
LGMWI	1255	Ssgt Varieur	22287	MUNITIONS
LGMCE	136	Ssgt Grinde	22576	136-01 Methyl Chloroform wipes
LGMCF	138	Tsgt Baumgrass	23185	Rags w MEK aerosols MEK
LGMP	134	Tsgt McFarland	22114	134-01 Blast media, 134-02 aerosols, 134-03 MEK
LGMD	78	Mr Fred Jones	22089	78-01 Hg bat, 78-02 113 Tric, 78-03 NiCd, 78-04 Li continued; 78-05Hg, 78-06KOH bat, 78-07PbSO4 Bat, 78-08 sensor cells, 78-09 solder resl, 78-10 Aerosols
LGMD	78	Mr Fred Jones	22089	100-01 solder, 100-02 aerosols
LGMVL	100	Msgt Hughes	24120	batteries NiCd, Li, Hg
TSIE	100	A Mayville	25677	ethyl alcohol
TSRI	22	C Morse	22338	Hydraulic fluid, pads & filters
TSWG	374 rm 120	Msgt Parker	29978	Plastic media w/paint chips
46EMS/LGMX	136	Mr Perecko	23463	Aerosols
LGMWS	1212	SSgt Sasada	2-3040	

TRACOR (old name VITRO)

<u>Unit ID</u>	<u>Blk #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
Vitro	68	R A Love	29017	Aerosols returned to issue point
Vitro	C1	T B Smith	24255	Aerosols returned to issue point
Vitro	C3	H K Smith	21762	Batteries lead acid only recycling
				Aerosols, Btrs,Pnt dust, Pnts & Slvnts, abrasives
Vitro	536	R C Chezem	24386	Sweepings
Vitro	946	G E Watson	29211	Aerosols, acids
Vitro	963	R G Henley	29545	Pnts chips, photo chemicals (Ag), batteries
Vitro	A20	T Taylor	28300	Aerosols returned to issue point
Vitro	C74L	J K Moyer	25587	Aerosols returned to issue point
Vitro	9960 site D-3	Randy McClain	25093	Spent aerosol effluents after puncturing
Vitro	9963 site D-3	Randy McClain	25093	Sock type fuel filters (diesel fuel #2)
Vitro	A-3	Frank Rickard	20359	Aerosols returned to issue point
Vitro	A-6	Travis Hinton	20381	Aerosols returned to issue point
Vitro	A-7	Ed Stallworth	20250	Inactive range area
				Supply Issue point, Waste Flammable liquids (Aerosol effluent)
Vitro	A-10	Eric Keathley	20295	
Vitro	A-11	Gregg Mitchell	20260	Aerosols returned to issue point
Vitro	SADS XI	L W McLendon	20241	Aerosols returned to issue point
Vitro	A-11A	Gregg Mitchell	20260	Aerosols returned to issue point
Vitro	A-12	Steve Richardson	20267	Inactive range area
Vitro	A-13	James Purdy	20265	Aerosols returned to issue point
Vitro	A-13A	Mark Herrington	20333	Aerosols returned to issue point
Vitro	A02	Ted Taylor	28300	Aerosols returned to issue point
Vitro	A-21	Don Vanderryt	20435	Aerosols returned to issue point
Vitro	A-21A	Rodney Pybus	22784	Aerosols returned to issue point
Vitro	A-22	George Buck	24658	Aerosols returned to issue point
Vitro	A-24	Dick Davis	22626	Aerosols returned to issue point
Vitro	A-30	A J Starling	21121	Aerosols returned to issue point
Vitro	A-31	Steve Llewellyn	21201	Aerosols returned to issue point
Vitro	B-1	James Siegler	29304	Aerosols returned to issue point
Vitro	B-4A	Weldon Fountain	29292	Aerosols returned to issue point
Vitro	B-4B	John Hardy	25374	Aerosols returned to issue point

TRACOR Cont.(old name VITRO)

<u>Unit ID</u>	<u>Blg #</u>	<u>Point of</u>	<u>Phone #</u>	<u>Waste Stream</u>
Vitro	B-4C	John Hardy	25374	Aerosols returned to issue point Supply Issue point, Waste
Vitro	B-4 Supply	Carl Baker		Flammable liquids (Aerosol effluent)
Vitro	B-10	James Siegler	29304	Aerosols returned to issue point
Vitro	B-12	Joe Holloway	21178,93	Aerosols returned to issue point
Vitro	B-75	Joe Holloway	21178,93	Aerosols returned to issue point
Vitro	B-82	Joe Holloway	21178,93	Aerosols returned to issue point
Vitro	Blg 22	Mike Maradik	21258	Aerosols returned to issue point
Vitro	Blg 22	Bruce Outlaw	23169	Aerosols returned to issue point
Vitro	Blg 22	Mike Datzman	25164	Aerosols returned to issue point
Vitro	C-7	Dan Steverson	29426	Aerosols returned to issue point
Vitro	C-7A	Tony Gomillion	29426	Aerosols returned to issue point
Vitro	C-10	Dennis Ray	24951	Aerosols returned to issue point
Vitro	C-52C	W C Howell	25977 or 4997	Aerosols returned to issue point
Vitro	C-64	Greg Linton	25587	Aerosols returned to issue point
WL	C-64A	J. Heberlein	29643	Aerosols returned to issue point
WL	C-64B	J. Heberlein	29643	Aerosols returned to issue point
WL	C-64C	J. Heberlein	29643	listed in WL duplicate info
Vitro	C-72	Marvin Gatlin	29426	Aerosols returned to issue point
Vitro	C-74	Robbie Williams	21534	Aerosols returned to issue point
Vitro	C-74A	Robbie Williams	21534	Aerosols returned to issue point
Vitro	C-74L	Jay Moyer	25587	Aerosols returned to issue point
Vitro	C-80W	D O Cotton	21510	Aerosols returned to issue point Supply Issue point, Waste
Vitro	C-124 Supply	Mike Hunt	21561	Flammable liquids (Aerosol effluent)
Vitro	Blg 440	Stan Lorentzen	25673	Aerosols returned to issue point
Vitro	Comm Blg 44MW	John Ward	23450	Aerosols returned to issue point
Vitro	Comm Blg 240	John Ward	23450	Aerosols returned to issue point
Vitro	Comm Blg 604	Henry Schultz	24318	Aerosols returned to issue point
Vitro	C-1MW	Ronnie Williams	24975	Aerosols returned to issue point
Vitro	Blg 129 CT	C H Meyers	24930	Aerosols returned to issue point
Vitro	Hgr 71 JTIDS	Phil Fredrickson	29579	Aerosols returned to issue point
Vitro	Rng Servs	Dave Burns	24995	Aerosols returned to issue point

Wright Labs

<u>Unit ID</u>	<u>Blg #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
MNGS	LDERF C3	Capt James Kimmel	21724	Acidic solution
MNME	HERD	John D Corley	29532	Explosives
MNME	HERD	John D Corley	29532	Explosives
MNMW	A-15	Ronald O Hardy	20246	Chromium solution
	Building 9626			
MNMW	AWEF	J A Heberlein	29643	various acids/chemical developers
	Building 13 Suite			
MNP/PYRAMID	150	Linda McKinney	22018	Aerosols/Batteries/Paint/used oil

AAFES

<u>Unit ID</u>	<u>Bldg #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
AAFES	501	June Clark	678-7222	Fuel Filters (HW) & oil filters(POL)
AAFES	1757	Steve Friend	651-2512 x260	Fertilizers & consumer items

919 Duke Field

<u>Unit ID</u>	<u>Big #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
MS/LGRAS	shed outside 3023	Douglas Kinder	36549	Various 90 day site
MS/LGRAS	3067	Douglas Kinder	36549	Paint booth - filters, paper, paint
MS/LGRAS	3067	Douglas Kinder	36550	Aerosols
MS/LGRAS	3067	Douglas Kinder	36551	Corrosive Material
MED SQ/SGA	3120	Ms Willis	36377	Expired medications ephineperine
MS/LGRAS	3022	Douglas Kinder	36549	Alodine
MS/LGMP	3076	Fraiser Mead	3-6566	
SOW/EM	3034	Cathay Windsor	36620	Universal Wastes (Batteries)

96CEG

<u>Unit ID</u>	<u>Bldg #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
796 CES	690	Alvin Davis	24277	aerosol cans (Pharmacy)
96 CES	Not Assigned	Ssgt Scott	23370	various Hg, pnt, sealants (90 Day Site)(ACC)
96 CES/CEOIL	780	Fredrick Reed	24840	fltrs, abstrbnt contam w/JP-8 (IAP)
796 CES/Zone 1	1324	SSgt McCracken	23681	Hg switches NiCd bttrs (POL)
796 CES/Zone 4	3031	SrA Dennis	36338	refrigerant oil, PCB/Oil (POL)
796 CES/Zone 7	9223	Tsgt Pearson	20214	refrigerant oil, PCB/Oil (POL)
796 CES/Zone 8	2825	Mr. Davis	38211	oil, filters, universal waste (POL)
796 CES/CEZHG	684	Mr Waters	29298	oil (POL)
96 CES/CEOIM	690	Rick Davis	25853	oil, refrigerant oil, NiCd bttrs (POL)
96 CES/CEOIP	690	Ssgt Hicks	25812	antifreeze, oil, diesel, filters (POL)
96 CES/CEOIX	687	Ssgt Edwards	23255	transformer oil, capacitors, transformers (POL)

Small Units

<u>Unit ID</u>	<u>Blg #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
NAVSCHED	8861	EO1 Rich Riegert	28677	not listed
NAVSCHED	8840	TSgt Michael Stack	28791	not listed
AFDTC/EMCW	592	James T Kaim	2-1856	all
AFDTC/EMCP	619	Daniel Whipple	27744	Aerosols & Oil filters
6th RTB	6015.002	SSgt Karlen	2-1254	Solvent (Gun cleaner SK)
6th RTB		SSgt Waganat		Issue Point btrs, aerosols, pnts,
6th RTB		Frank Holbrook		MEK & Toluene rags from boat repairs
96 SVS/SVBG	Between 1512/1540	John Eagle	25123	Aerosols

ACCS Only

<u>Unit ID</u>	<u>Bldg #</u>	<u>Point of Contact</u>	<u>Phone #</u>	<u>Waste Stream</u>
33FW/LSS	1361	George Adkins	34257	everything
728ACS/LGP(TRANS)	3057	SSgt Mark S Kanocz	36601	Batteries & POL
16MXS/LGMSH	421pkng lot	Tsgt Timothy M Stark	23513	Everything
20SSS/LG	8633	Bill Childers	37715	Supply
96 MDSS/SGSLF	Hospital	Danny Rudolph	27515	Medical Wastes
WL/MNME	HERD	John D Corely	29532	Explosives
919MS/LGRAS	shed outside 30223	Douglas Kinder	36549	Various 90 day site
AFDTC/EMCW	not assigned	Bruce Stippich	2-1856	all
Chicken Little		Thomas Caldwell	29665	Range C-52A JP-8, Mtr oils, antfrz, POL absrbnt pds, arsl effluents (puncturer)
96 CES	Not Assigned	Ssgt Blue	24813	Various Hg, pnt, sealants
96 SUPS/LGS	610	James May	2-9843	Various supply items

HEADQUARTERS AIR FORCE DEVELOPMENT TEST CENTER
Eglin Air Force Base, Florida 32542-5495
February 1998

ANNEX Z TO AFDTC PLAN 32-6
DISTRIBUTION

<u>ADDRESSEE</u>	<u>NO. OF COPIES</u>		
<u>HQ AFDTC</u>		CEZH	2
AS	1	CEZHH	5
CCX	1	CEZOIL	4
CCI	1	<u>ADDRESSEE</u>	<u>NO. OF COPIES</u>
EMCW	125	53 D WING	
FM	2	(53 SPTS/XRP)	1
IGI	2	33 OSS/OSTX	10
JA	2	AAFES/SVE	2
MO	1	20 SSS/IMX	2
PA	2	919 SOW/LGLX	5
PK	1	9 SOS/DOX	2
SE	2	DET 5, ASC	5
DR	1		
<u>46 TW</u>		WL/MNSE	12
46 MXS/LGM	35	<u>796 CES</u>	
46 OSS/OSCS	48	CEZ	1
LG	10	CEZF	1
<u>96 ABW</u>		ARMY RANGER CAMP	1
XPO	4	EODS	1
XPX	4		
<u>96 LG</u>	5	COAST GUARD, DESTIN	1
		FEDERAL PRISON CAMP	1
<u>96 MDG</u>		<u>EXTERNAL</u>	
SGB	1	Eight USCG District	2
SGPB	1	Hale Boggs Federal Building	
SGPR	2	501 magazine Street	
<u>96 SFS</u>		New Orleans LA 70130-3396	
SFX	5	EPA Region IV	2
SFTA	5	Atlanta GA 30309	
<u>96 SVS/SVX</u>	2	Environmental Reg	1
<u>96 CEG</u>		169 Governmental Center	
CEXD	10	Pensacola, FL 32501	
CEF	20		
CEOE	5		