Field practice internship final report

May 1994

Oak Ridge National Lab., TN (United States)

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**MASTERS IN PUBLIC HEALTH
THE UNIVERSITY OF TENNESSEE, KNOXVILLE**

FIELD PRACTICE INTERNSHIP FINAL REPORT

by

TAMMIE FOSTER

May 2, 1994

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Introduction

This field practice internship final report gives an overview of the field practice, which was completed at the Oak Ridge Y-12 Plant, Martin Marietta Energy Systems, Inc., Environmental Management Department, Oak Ridge, Tennessee. The field practice focused on the completion of the Superfund Amendments and Reauthorization Act (SARA) Title III, Emergency Planning and Community Right-to-Know Act Section 312, Tier II Report. The field practice internship was conducted on a full-time basis between December 13, 1993 through February 18, 1994. Sheila Poligone, Emergency Planning and Community Right-to-Know Act (EPCRA) Coordinator served as the field practice preceptor.

MARTIN MARIETTA ENERGY SYSTEMS ORGANIZATION

The Oak Ridge Y-12 Plant is one of three installations managed by Martin Marietta Energy Systems (MMES), for the United States Department of Energy (USDOE). The other installations include the Oak Ridge National Laboratory (ORNL) and the K-25 Site. MMES is dedicated to the ethical and efficient operation of these installations and is committed to policies that promote safe operations and the health and job satisfaction of all

employees.¹ MMES facilities are involved in the "research and development of safe, economic, environmentally acceptable technologies for the efficient production and use of energy."²

Martin Marietta Energy Systems
Environmental Management Department

The Environmental Management Department develops and implements programs to help protect the environment in the Y-12 valley (including ORNL activities at Y-12) and assuring compliance within all applicable federal, state, and local environmental regulations. The program deals with proper management of effluent and wastes resulting from current plant operations and supports remediation of unacceptable environmental conditions that resulted from practices of the past.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA), TITLE III,
EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW (EPCRA) SECTION
312, TIER II REPORTING

On December 4, 1984, a cloud of methyl isocyanate gas, an extremely toxic chemical, escaped from a Union Carbide chemical plant in Bhopal, India. More than 2,500 people lost their lives. Tens of thousands more were injured, some suffering permanent disabilities. Shortly after this accident, a chemical release in West Virginia, though not nearly as serious as Bhopal, encouraged states to pass laws giving workers and citizens access to information about hazardous substances in their workplaces and

communities.³ Even though state laws differ, most require reporting of toxic chemical releases and the presence of hazardous substances.

With the States efforts in mind, in November 1986, Congress passed a law under the Superfund Amendments and Reauthorization Act (SARA) Title III called the Emergency Planning and Community Right-to-Know Act. This law was designed to assist America's communities in dealing safely and effectively with the many hazardous substances that are used throughout our society. This law consist of two main purposes: to encourage and support emergency planning for responding to chemical accidents; and to provide local governments and the public with information about possible chemical hazards in their communities.

The Code of Federal Regulations, Title 40, Part 370 - Hazardous Chemical Reporting consist of guidelines used for reporting. Community Right-to-Know established reporting requirements which provide the public with important information on the hazardous chemicals in their communities for the purpose of enhancing community awareness of chemical hazards and facilitating development of State and local emergency response plans. Hazardous chemicals are defined under 29 CFR 1910.1200(c) as "any chemical which is a physical hazard or a health hazard". Also a chemical is defined to be any element, chemical compound, or mixture of elements and/or compounds.

The Oak Ridge Y-12 Plant must complete the Section 312 report because it is a facility that is required to prepare or have available a Material Safety Data Sheet (MSDS) for a hazardous chemical under the Occupational Safety and Health Act of 1970 and regulations promulgated under that Act. The Section 312 report provides various agencies and local fire departments with additional data on hazardous chemicals by requiring an annual submission of inventory and storage information from reporting facilities. The provisions of Section 312 also apply to mixtures of hazardous chemicals. Facilities are given the option of providing report data on each component in the mixture that is a hazardous chemical. However, data on the mixture can be reported as long as the MSDS and inventory reporting of mixtures "where practicable" is consistent for both types of reporting. If a facility chooses the component method of mixture reporting, then the concentration of the hazardous chemical, in weight percent mass (greater than 1 percent or 0.1 percent if carcinogenic) must be multiplied by the mass (in pounds) of the mixture to determine the quantity of the hazardous chemical therein. Where the facility chooses to report on the mixture, then the total quantity of the mixture must be reported. The inventory is documented on the Tier II Report. This report provides chemical-specific information and required data for individual hazardous

chemicals. Specific data required for the Tier II Report include:

1. The chemical or common name of the hazardous chemical as given on the Material Safety Data Sheet.
2. An estimate, expressed as a range, of the greatest amount of the substance present at the facility during the preceding calendar year.
3. An estimate, expressed as a range, of the average daily amount of the substance present during the preceding calendar year.
4. A brief description of the manner in which the substance is stored.
5. The location of the substance at the facility.
6. Whether the owner or operator wishes to have the storage information withheld from public disclosure.³

All hazardous chemicals which are procured through Stores, Accelerated Vendor Inventory Delivery (AVID), and Direct Charge are reviewed for a calendar year (CY). From this review, a list of hazardous chemicals are compiled which could potentially reach/exceed the reporting threshold set by the regulations for hazardous chemicals is 10,000 pounds, and for extremely hazardous substances 500 pounds or the threshold planning quantity, whichever is lower. This list along with a List of Exemptions for Inventory Reporting and instructions for completing the Hazardous Chemical Inventory Form, is then sent to plant personnel to take an inventory of average and maximum daily

quantities that were stored during the calendar year. Workshops were also setup to assist the individuals in completing the inventory packages correctly.

Information sent in from the plant areas are then compiled on the Hazardous Chemical Summary Sheets. Compilation of the Hazardous Chemical Summary Sheets consist of calculating conversions of weights for chemicals and transferring the information from the Hazardous Material Inventory forms to the Hazardous Chemical Summary form for preparation of the Tier II, Section 312 Report. After completion of the Tier II Report, a Quality Assurance/Quality Control (QA/QC) checklist is completed to ensure that all information is accurate on the form. It is reviewed internally and then submitted to the appropriate regulatory agencies. These agencies includes the Tennessee Emergency Management Council (TEMA), the Oak Ridge Fire Department, Anderson, Knox, Roane and Loudon Counties Local Emergency Planning Commissions. It is also submitted to the Y-12 Fire Department personnel.

BENEFITS OF FIELD PRACTICE

Benefits of my field practice consist of:

1. Awareness of hazardous chemicals stored at MMES and how each toxic and extremely hazardous chemicals are inventoried each calendar year.
2. Being able to follow the process through with the SARA Title III, Section 312 Report from start to finish.

3. Working directly with the employees submitting the inventories to assist in making sure correct data is being submitted.
4. The interaction of Industrial Hygiene and Environmental Management and how the two disciplines work together to decide the physical and health hazards of all toxic and extremely hazardous chemicals.
5. Developed an understanding of the SARA Title III, EPCRA reporting.
6. Seeing how the various chemicals are stored at MMES and how it effects the surrounding communities.
Also being aware of the emergency response used by MMES in the event of an accidental release.

This experience would be valuable to anyone in the Occupational and Environmental Health and Safety field because it allows contact with employees and exposes them to many aspects of hazardous chemical reporting. This learning experience is very valuable and has helped me to understand the interaction between Industrial Hygiene, Environmental Management, and the surrounding counties as they relate to emergency response.

REFERENCES

1. Document cited has not been reviewed for public release.
2. Document cited has not been reviewed for public release.
3. Emergency Planning and Community Right-to-Know Handbook, Fourth Edition, J. Gordon Arbuckel, Timothy A. Vanderver, Jr., Paul A. J. Wilson, January 1992, Government Institutes, Rockville, Maryland.

ATTACHEMENT 1

LIST OF HAZARDOUS SUBSTANCES
SUBJECT TO INVENTORY
FOR CY 1993

Page 1 of 3

A. P. Green Castable Refractory (72-88% Alumina)

Acetonitrile

Acetone

Acetic Acid

Aluminum Hydroxide

Aluminum Nitrate

Aluminum Oxide

American Limestone Co. Limestone (1-95% Calcium Carbonate)

Ammonia

Ammonium Hydroxide

Argon

Asphalt

Battery Acid

Beryllium and Beryllium Compounds (excluding parts)

Biogenic SE 377C (<30% D-Limonene)

Calcium Carbonate

Calcium Chloride

Calcium Hydroxide

Carbon Dioxide

Chlorine

Clear Plastisol (33-46% Di-sec-octyl Phthalate)

Cutting Coolants

Diatomaceous Earth

Di(2-ethylhexyl) Phthalate

Diphenylmethane diisocyanate

Dixie Portland & Masonry Cement

Endcor 4529 (<52% Sulfuric Acid)

Enplate

Ethylene Glycol

Ethylenediamine

**LIST OF HAZARDOUS SUBSTANCES
SUBJECT TO INVENTORY
FOR CY 1993 (Cont.)**

Page 2 of 3

Ferri-Floc (48.7 % Ferric Sulfate)
Flexible Products (e.g., FP 234-2.5 A-Side, and B-Side)
Foam Components (e.g., Autoflex Polyurethane Component A, and Component B)
Freon 11
Freon 12
Freon 22
Freon 113
Freon 114
Fullers Earth

Gasoline (please distinguish type:
diesel, unleaded, ethanol fuel, kerosene, etc.)

Halons
Helium
Holden Eutectic Mixture 94-18-8
Hydrochloric Acid and HCL Solutions
Hydrofluoric Acid
Hydrogen
Hydrogen Peroxide Solution

Integrated chemistries PCB Extraction System

Johnson Complete for Floors
Johnson Finish JX-4000/Concrete Sealer

Kathene Solution (35-40% Lithium Chloride)
Kerosene

Lead Metal (e.g., lead bullets)
Lithium Chloride
Lithium Hydroxide

Mercury
Methanol
Methyl Chloroform
Methylene Chloride
Moltan Safety Absorbent

LIST OF HAZARDOUS SUBSTANCES
SUBJECT TO INVENTORY
FOR CY 1993 (Cont.)

Page 3 of 3

Naphtha

Nickel Metal and Nickel Soluble Compounds

Nitric Acid

Nitrogen

Nitrogen Dioxide

Oils (please distinguish type:

petroleum oils, hydraulic, naphtha. etc.)

Oxygen

Perchloroethylene

Plastisol

P-10 Nuclear Counter Mixture (90% Argon/10% Methane)

PBS Chemical Co. Sodium Hydrogen Sulfite (15-43 % Sodium Bisulfite)

Potassium Chloride

Potassium Hydroxide

Quickrete Concrete Mix

Quickrete Mortar Mix

Roof Top Liquid, Cement, or Coating (Asphalt)

Sodium Bisulfite

Sodium Carbonate

Sodium Chloride

Sodium Hydroxide and Sodium Hydroxide Solutions

Sodium Hypochlorite Solutions

Sodium Nitrate

Sodium Phosphate, tribasic, dodecahydrate

Sulfuric Acid

1,1,1-Trichloroethane

2,4-Toluene diisocyanate

ATTACHMENT 2

EXEMPTIONS FROM INVENTORY REPORTING

The inventory should be conducted on all hazardous chemicals as defined under 29 CFR 1910.1200(c), which states that a "hazardous chemical means any chemical which is a physical hazard or a health hazard." A chemical is defined to be "any element, chemical compound, or mixture of elements and/or compounds." There are, however, exemptions cited under the Emergency Planning and Community Right-to-Know Act as defined below. Please consider these exemptions when completing your inventory forms and indicate in the comment section which exemptions you have applied.

1. Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration.
2. Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use. **Clarification:** This would exclude hazardous chemicals in the form of stable, finished parts.
3. Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public. **Clarification:** This would exclude aerosol or spray cans from reporting. Also, a can of paint or a can of motor oil would be excluded. Anything that is in consumer form and not on a bulk scale would be excluded from reporting.
4. Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual. **Clarification:** Research laboratories and quality control laboratories located within manufacturing facilities are not required to report hazardous chemicals where small amounts of many types of chemicals are used, or stored for short periods, that are not hazardous to the general public when administered or used under appropriate supervision. This does not include pilot scale operations that resemble operations within the plant. Also, if hazardous substances are used for medical purposes they are exempt from reporting requirements.
5. Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer. **Clarification:** This would exclude the reporting of fertilizers, pesticides, and other chemical substances when applied, administered, or otherwise used as part of routine agricultural activities.
6. Resource Conservation and Recovery Act (RCRA) wastes are not subject to inventory reporting. However, certain RCRA waste information is gathered at a later date for release reporting (i.e., waste shipments off site).
7. Radioactive substances are not subject to reporting.

ATTACHMENT 3

INSTRUCTIONS FOR COMPLETING THE HAZARDOUS CHEMICAL INVENTORY FORM

Please complete all columns to prevent delays in manipulating the data to fulfill the requirements of the Emergency Planning and Community Right-to-Know Act (EPCRA). The following instructions apply toward each hazardous chemical present in your area that is on the List of Hazardous Substances Subject to Reporting for CY 1993 (whether designated as a hazardous chemical or a mixture containing a hazardous chemical component). The form may be completed by hand writing the information, but please ensure that it is readable.

Division: Please provide the organization (i.e., division) name from which you are reporting, do not use numerical numbers.

Area Contact, Phone Number, and Plant Address: Please specify the hazardous communication coordinator for the area or the responsible supervisor/individual.

Chemical Name: Please specify the hazardous chemical present by indicating the hazardous chemical name. If the chemical is a trade name, please supply hazardous constituent and concentration of that constituent (e.g., [P-10 Nuclear Counter Mixture/90% Argon and 10% Methane] or [Kathene Solution/35-40% Lithium Chloride]). Also, if the chemical is a solution or acid, please give concentration of solution (e.g., Nitric Acid - 95%).

Chemical State: Indicate if the state of the chemical is pure or part of a mixture and what form: solid/liquid/gas.

Stores/Avid Number: If you supply usage, container type, and size, this information is not needed. If for some reason you cannot supply these items, you must supply Stores catalog number.

Buyer's Name and Badge Number: This information can be manipulated with the usage information as a last resort in determining the amount of chemical utilized within the calendar year. It is preferred that you keep records of your chemical usage rather than assume that all chemicals purchased were used during the year. This assumption can lead to 'false high' emission numbers for the plant. If we must rely on the purchase information for the chemical usage information, please be certain that you supply the Stores/Avid Number.

Storage Location: Specify building number and room number (or some sort of area designation or floor if room numbers are unavailable). Also, please give building numbers, not building names.

**INSTRUCTIONS FOR COMPLETING THE
HAZARDOUS CHEMICAL INVENTORY FORM (Cont.)**

Container Type: Specify container type as well as container size. Please specify the unit and size (i.e., 5 gallon, 2.5 liter, 30 lb drum, 1 pint, etc.). Some possible container types are as follows:

Above ground tank	Cardboard/wood box
Below ground tank	Gas/Liquid cylinder
Tank inside building	Glass bottle or jug
Steel drum	Plastic bottle or jug
Plastic or non-metallic drum	Shatterproof jug
Metal can	Tote bin
Plastic carboy	Bucket
Silo	Tank wagon
Fiber drum	Rail car
Paper/plastic bag	

Storage Temperature: Please indicate the temperature at which the hazardous chemical is being stored. Possible temperatures are as follows:

- Ambient temperature (AT)
- Greater than ambient temperature (GAT)
- Less than ambient temperature but not cryogenic (LAT)
- Cryogenic conditions (Cry)

Storage Pressure: Please indicate the pressure at which the hazardous chemical is being stored. Possible pressures are as follows:

- Ambient pressure (AP)
- Greater than ambient pressure (GAP)
- Less than ambient pressure (LAP)

Average Daily Inventory: For each hazardous chemical, estimate the average daily amount stored in your area during the calendar year 1993. Be sure to specify units.

Maximum Daily Inventory: For each hazardous chemical, estimate the maximum amount stored for any given day during the calendar year 1993. Be sure to specify units.

Usage Location: Specify usage location of the hazardous chemical. If the usage location is the same as storage location, you may enter "same" in the usage location column.

INSTRUCTIONS FOR COMPLETING THE HAZARDOUS CHEMICAL INVENTORY FORM (Cont.)

Manner of Usage: Specify how the hazardous chemical is being utilized. This information is very important in determining what thresholds apply for the hazardous chemical specified. Please supply a short descriptive phrase (i.e., plating operations, degreasing process, reagent, etc.).

Usage per year: Specify how much of each hazardous chemical was utilized during calendar year 1993. If you stored, but have not used, the chemical in the last year enter "0" in the usage column. If you have discontinued the use of a chemical or made a substitution, please enter "discount." or "sub." in the usage column and supply the date of the discontinued usage/substitution and disposition of any stock on hand (i.e., surplus or given to another process area) in the comments section on the reverse of the form.

Signature, Date, and Phone Number: Please sign, date, and provide your phone number as a way of certifying that the information is complete.

Additional Information: On the reverse side of the form, please provide any additional comments that might complete your inventory (i.e., changes in production rate or suspension of production for prolonged periods, chemical substitutions, shut down of a process, or surplus of chemical stock/giveaway to another area).

HAZARDOUS CHEMICAL SUMMARY

Page ____ of ____

CHEMICAL NAME: _____

CAS NO: _____

THRESHOLD QTY: _____

EXHAZ: () Yes () No

CONVERSIONS: _____

TOXIC CHEMICAL: () Yes () No

AREA CONTACT & ORGANIZATION	CHEMICAL STATE	STORAGE LOCATION	CONTAINER TYPE	TEMP/ PRESSURE	AVG. DAILY	MAX DAILY	USAGE LOCATION	MANNER OF USAGE	USAGE/YEAR
TOTALS									

**SUPERFUND AMENDMENTS AND REAUTHORIZATION
ACT (SARA) TITLE III
EMERGENCY PLANNING AND COMMUNITY
RIGHT-TO-KNOW ACT
SECTION 312, TIER TWO REPORT FORMS**

**R. A. Evans
T. T. Foster
S. E. Poligone**

**Environmental Management Department
Health, Safety, Environment,
and Accountability Organization**

February 1994

**Prepared by the
Oak Ridge Y-12 Plant
Oak Ridge, Tennessee 37831
managed by
Martin Marietta Energy Systems, Inc.
for the U.S. Department of Energy
under Contract DE-AC05-84OR21400**

Revised June 1990

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY <i>Specific Information by Chemical</i>	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>	
	Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>		<div style="border: 1px solid black; padding: 5px; width: fit-content;"> FOR OFFICIAL USE ONLY ID # _____ Date Received _____ </div>	
	Important: Read all instructions before completing form			
	Reporting Period From January 1 to December 31, 19 <u>93</u>		☐ Check if information below is identical to the information submitted last year.	

Chemical Description	Physical and Health Hazards <small>(check all that apply)</small>	Inventory	Storage Codes and Locations (Non-Confidential)	Optional																				
CAS <u>000064197</u> Trade Secret ☐ Chem. Name <u>Acetic Acid</u> Check all that apply: ☒ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☒ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>C</td><td>4</td><td>1</td><td>Bldg. 9616-7</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9401-2</td></tr> <tr><td>H</td><td>4</td><td>1</td><td>Bldg. 9204-3, 9201-5, 9401-2</td></tr> <tr><td>N</td><td>4</td><td>1</td><td>Bldg. 9207, 9212, 9206, 9204-2E</td></tr> <tr><td>N</td><td>4</td><td>1</td><td>Bldg. 9720-39</td></tr> </table>	C	4	1	Bldg. 9616-7	D	4	1	Bldg. 9401-2	H	4	1	Bldg. 9204-3, 9201-5, 9401-2	N	4	1	Bldg. 9207, 9212, 9206, 9204-2E	N	4	1	Bldg. 9720-39	
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N	4	1	Bldg. 9207, 9212, 9206, 9204-2E																					
N	4	1	Bldg. 9720-39																					
CAS <u>007440440</u> Trade Secret ☐ Chem. Name <u>Activated Carbon</u> Check all that apply: ☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☒ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>J</td><td>4</td><td>1</td><td>Bldg. 9616-7</td></tr> </table>	J	4	1	Bldg. 9616-7																	
J	4	1	Bldg. 9616-7																					
CAS <u>013473900</u> Trade Secret ☐ Chem. Name <u>Aluminum Nitrate</u> Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	<u>05</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>C</td><td>4</td><td>1</td><td>Bldg. 9206</td></tr> <tr><td>I</td><td>4</td><td>1</td><td>Bldg. 9204-3</td></tr> <tr><td>J</td><td>4</td><td>1</td><td>Bldg. 9720-2, 9815</td></tr> <tr><td>H</td><td>4</td><td>1</td><td>Bldg. 9204-3, 9215</td></tr> </table>	C	4	1	Bldg. 9206	I	4	1	Bldg. 9204-3	J	4	1	Bldg. 9720-2, 9815	H	4	1	Bldg. 9204-3, 9215					
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I	4	1	Bldg. 9204-3																					
J	4	1	Bldg. 9720-2, 9815																					
H	4	1	Bldg. 9204-3, 9215																					

Optional Attachments

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

FEB 24 1994

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 1 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

ROBERT J. SPENCE
Y-12 SITE MANAGER

Name and official title of owner/operator or owner/operator's authorized representative

Signature _____

Date signed _____

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> FOR OFFICIAL USE ONLY ID # _____ Date Received _____ </div>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u> Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>																								
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	Chemical Description	Physical and Health Hazards <small>(check all that apply)</small>	Inventory	Storage Codes and Locations (Non-Confidential) <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> Container Type Temperature Pressure </div> <div> Storage Locations </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> Optional </div> </div>																							
	CAS <u>001344281</u> Trade Secret ☐ Chem. Name <u>Aluminum Oxide</u> Check all that apply: ☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<div style="display: flex; justify-content: space-between;"> <div> <u>03</u> Max. Daily Amount (code) <u>03</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days) </div> </div>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9998</td></tr> <tr><td>F</td><td>4</td><td>1</td><td>Bldg. 9204-2E, 9201-5</td></tr> <tr><td>I</td><td>4</td><td>1</td><td>Bldg. 9720-2, 9401-2, 9201-5</td></tr> <tr><td>J</td><td>4</td><td>1</td><td>Bldg. 9720-2</td></tr> <tr><td>K</td><td>4</td><td>1</td><td>Bldg. 9204-1, 9201-5N</td></tr> <tr><td>N</td><td>4</td><td>1</td><td>Bldg. 9201-3, 9201-5</td></tr> </table>	D	4	1	Bldg. 9998	F	4	1	Bldg. 9204-2E, 9201-5	I	4	1	Bldg. 9720-2, 9401-2, 9201-5	J	4	1	Bldg. 9720-2	K	4	1	Bldg. 9204-1, 9201-5N	N	4	1
D	4	1	Bldg. 9998																								
F	4	1	Bldg. 9204-2E, 9201-5																								
I	4	1	Bldg. 9720-2, 9401-2, 9201-5																								
J	4	1	Bldg. 9720-2																								
K	4	1	Bldg. 9204-1, 9201-5N																								
N	4	1	Bldg. 9201-3, 9201-5																								
CAS <u>007440371</u> Trade Secret ☐ Chem. Name <u>Argon</u> Check all that apply: ☒ Pure ☒ Mix ☐ Solid ☒ Liquid ☒ Gas ☐ EHS EHS Name _____	☐ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	<div style="display: flex; justify-content: space-between;"> <div> <u>11</u> Max. Daily Amount (code) <u>10</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days) </div> </div>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>A</td><td>4</td><td>2</td><td>Bldg. 9977-1</td></tr> <tr><td>C</td><td>4</td><td>2</td><td>Bldg. 9204-4</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9212, 9204-3, 9204-1, 9401-3</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9215, 9206, 9201-1, 9738</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9737, 9204-2E, 9201-5N</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9709, 9201-3, 9201-5H</td></tr> </table>	A	4	2	Bldg. 9977-1	C	4	2	Bldg. 9204-4	L	4	2	Bldg. 9212, 9204-3, 9204-1, 9401-3	L	4	2	Bldg. 9215, 9206, 9201-1, 9738	L	4	2	Bldg. 9737, 9204-2E, 9201-5N	L	4	2	Bldg. 9709, 9201-3, 9201-5H
A	4	2	Bldg. 9977-1																								
C	4	2	Bldg. 9204-4																								
L	4	2	Bldg. 9212, 9204-3, 9204-1, 9401-3																								
L	4	2	Bldg. 9215, 9206, 9201-1, 9738																								
L	4	2	Bldg. 9737, 9204-2E, 9201-5N																								
L	4	2	Bldg. 9709, 9201-3, 9201-5H																								
CAS <u> </u> Trade Secret ☐ Chem. Name <u>Argon (cont.)</u> Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	<div style="display: flex; justify-content: space-between;"> <div> <u> </u> Max. Daily Amount (code) <u> </u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days) </div> </div>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9401-5, 9825-1, 9825-2</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9401-4, 9720-9, 9720-45</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9811-8, 9107, 9108, 9723-25</td></tr> <tr><td>P</td><td>4</td><td>2</td><td>Bldg. 9204-3</td></tr> <tr><td>Q</td><td>4</td><td>2</td><td>Bldg. 9977-1</td></tr> </table>	L	4	2	Bldg. 9401-5, 9825-1, 9825-2	L	4	2	Bldg. 9401-4, 9720-9, 9720-45	L	4	2	Bldg. 9811-8, 9107, 9108, 9723-25	P	4	2	Bldg. 9204-3	Q	4	2	Bldg. 9977-1				
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Certification (Read and sign after completing all sections) I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 1 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. <u>ROBERT J. SPENCE</u> <u>Y-12 SITE MANAGER</u> Name and official title of owner/operator OR owner/operator's authorized representative			Optional Attachments ☐ I have attached a site plan ☐ I have attached a list of site coordinate abbreviations ☐ I have attached a description of dikes and other safeguard measures																								

FEB 24 1994

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> FOR OFFICIAL USE ONLY ID # _____ Date Received _____ </div>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u> Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>			
	Important: Read all instructions before completing form		Reporting Period From January 1 to December 31, 19 <u>93</u>			
	Chemical Description		Physical and Health Hazards <small>(check all that apply)</small>	Inventory	Storage Codes and Locations (Non-Confidential) Container Type Temperature Pressure Storage Locations	Optional
	CAS <u>007440417</u> Trade Secret ☐ Chem. Name <u>Beryllium & Beryllium Compound</u> Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	D 4 1 Bldg. 9201-5, 9202 J 4 1 Bldg. 9201-5 N 4 1 Bldg. 9201-5	
CAS <u>000124389</u> Trade Secret ☐ Chem. Name <u>Carbon Dioxide</u> Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☐ Liquid ☒ Gas ☐ EHS EHS Name _____		☐ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	L 4 2 Bldg. 9201-1, 9204-2E, 9401 2 R 6 2 Bldg. 9720-2		
CAS <u> </u> Trade Secret ☐ Chem. Name <u>Cutting Coolant</u> Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>03</u> Max. Daily Amount (code) <u>03</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	C 4 1 Bldg. 9204-2 D 4 1 Bldg. 9201-5N, 9206, 9212, 9201-1 D 4 1 Bldg. 9201-5W, 9201-5, 9201-3 F 4 1 Bldg. 9212, 9204-1, 9208 I 4 1 Bldg. 9737, 9201-3		
Certification (Read and sign after completing all sections) I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through <u>19</u> , and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.					Optional Attachments ☐ I have attached a site plan ☐ I have attached a list of site coordinate abbreviations ☐ I have attached a description of dikes and other safeguard measures	
Name and official title of owner/operator or owner/operator's authorized representative <div style="display: flex; justify-content: space-between;"> <div> ROBERT J. SPENCE Y-12 SITE MANAGER </div> <div> Signature </div> <div> FEB 24 1994 Date signed </div> </div>						

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>			Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>		
	Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>					
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> FOR OFFICIAL USE ONLY ID # _____ Date Received _____ </div> <div style="width: 50%;"></div> </div>					
	Important: Read all instructions before completing form Reporting Period From January 1 to December 31, 19 <u>93</u> ☐ Check if information below is identical to the information submitted last year.					

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Container Type Temperature Pressure	Storage Codes and Locations (Non-Confidential) Storage Locations	Optional
CAS <u>061790532</u> Trade Secret ☐ Chem. Name <u>Diatomaceous Earth</u> Check all that apply: ☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<u>J</u> <u>4</u> <u>1</u> Bldg. <u>9616-9, 9720-2, 9212, 9201 1</u>		
CAS _____ Trade Secret ☐ Chem. Name <u>Diesel Fuel #2</u> Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	<u>05</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<u>A</u> <u>4</u> <u>1</u> <u>B</u> <u>4</u> <u>1</u> <u>P</u> <u>4</u> <u>1</u> Bldg. <u>9754-2</u> Bldg. <u>9714, 9754-3</u> Bldg. <u>9712</u>		
CAS <u>000107211</u> Trade Secret ☐ Chem. Name <u>Ethylene Glycol</u> Check all that apply: ☒ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>03</u> Max. Daily Amount (code) <u>03</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<u>D</u> <u>4</u> <u>1</u> <u>E</u> <u>4</u> <u>1</u> <u>F</u> <u>4</u> <u>1</u> <u>N</u> <u>4</u> <u>1</u> Bldg. <u>9206, 9767 13, 9714</u> Bldg. <u>9712</u> Bldg. <u>9720-2, 9201-1</u> Bldg. <u>9737, 9204-2E</u>		

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Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>	
	FOR OFFICIAL USE ONLY ID # _____ Date Received _____		Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>	
	Important: Read all instructions before completing form			
Reporting Period From January 1 to December 31, 19 <u>93</u>		☐ Check if information below is identical to the information submitted last year.		
Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential) Storage Locations	Optional
CAS <u>010028225</u> Trade Secret ☐ Chem. Name <u>Ferric Sulfate</u> Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☒ No. of Days On-Site (days)	Container Type <u>A</u> Temperature <u>4</u> Pressure <u>1</u> Bldg. <u>9616-7, 9623</u> Bldg. <u>9201-5N</u>	
CAS <u>007720787</u> Trade Secret ☐ Chem. Name <u>Ferrous Sulfate</u> Check all that apply: ☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☒ No. of Days On-Site (days)	Container Type <u>J</u> Temperature <u>4</u> Pressure <u>1</u> Bldg. <u>9616-7, 9623</u>	
CAS <u>000075694</u> Trade Secret ☐ Chem. Name <u>Freon 11</u> Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☒ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☒ No. of Days On-Site (days)	Container Type <u>D</u> Temperature <u>4</u> Pressure <u>1</u> Bldg. <u>9720-2, 9767-1, 9767-3,</u> Bldg. <u>9767-4W, 9767-8, 9767-10</u> Bldg. <u>9767-11, 9767-12, 9767-13</u> Bldg. <u>9720-19</u> Bldg. <u>9720-19</u>	
Declaration: (Read and sign after completing all sections) I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 1 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. ROBERT J. SPENCE Y-12 SITE MANAGER Name and official title of owner/operator or authorized representative				Optional Attachments ☐ I have attached a site plan ☐ I have attached a list of site coordinate abbreviations ☐ I have attached a description of dikes and other safeguard measures
Signature _____		Date signed <u>FEB 24 1994</u>		

Revised June 1990

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>	
	FOR OFFICIAL USE ONLY ID # _____ Date Received _____		Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576-1005</u> 24 Hr Phone <u>(615) 576 1005</u>	

Important: Read all instructions before completing form

Reporting Period From January 1 to December 31, 19 93
☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential) Storage Locations	Optional																								
CAS <u>000075718</u> Trade Secret ☐ Chem. Name <u>Freon 12</u> Check all that apply: ☒ Pure ☒ Mix ☐ Solid ☒ Liquid ☒ Gas ☐ EHS EHS Name _____	☐ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☐ No. of Days On-Site (days)	<table border="1"> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9204-2E, 9720-19</td></tr> <tr><td>F</td><td>4</td><td>1</td><td>Bldg. 9201-5N</td></tr> <tr><td>L</td><td>4</td><td>1</td><td>Bldg. 9981, 9720-19</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9204-1, 9712, 9959, 9204-2E</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9714, 9808, 9767-8, 9208</td></tr> </table>	D	4	1	Bldg. 9204-2E, 9720-19	F	4	1	Bldg. 9201-5N	L	4	1	Bldg. 9981, 9720-19	L	4	2	Bldg. 9204-1, 9712, 9959, 9204-2E	L	4	2	Bldg. 9714, 9808, 9767-8, 9208					
D	4	1	Bldg. 9204-2E, 9720-19																									
F	4	1	Bldg. 9201-5N																									
L	4	1	Bldg. 9981, 9720-19																									
L	4	2	Bldg. 9204-1, 9712, 9959, 9204-2E																									
L	4	2	Bldg. 9714, 9808, 9767-8, 9208																									
CAS <u>000075456</u> Trade Secret ☐ Chem. Name <u>Freon 22</u> Check all that apply: ☒ Pure ☒ Mix ☐ Solid ☒ Liquid ☒ Gas ☐ EHS EHS Name _____	☐ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☐ No. of Days On-Site (days)	<table border="1"> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9959, 9808, 9767-4, 9208</td></tr> </table>	L	4	2	Bldg. 9959, 9808, 9767-4, 9208																					
L	4	2	Bldg. 9959, 9808, 9767-4, 9208																									
CAS <u>000076131</u> Trade Secret ☐ Chem. Name <u>Freon 113</u> Check all that apply: ☒ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☐ No. of Days On-Site (days)	<table border="1"> <tr><td>C</td><td>4</td><td>1</td><td>Bldg. 9215</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9720-2, 9212, 9206, 9201-2</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9767-3, 9201-5</td></tr> <tr><td>F</td><td>4</td><td>1</td><td>Bldg. 9204-3, 9204-1, 9720-2</td></tr> <tr><td>F</td><td>4</td><td>1</td><td>Bldg. 9204-4</td></tr> <tr><td>N</td><td>4</td><td>1</td><td>Bldg. 9103</td></tr> </table>	C	4	1	Bldg. 9215	D	4	1	Bldg. 9720-2, 9212, 9206, 9201-2	D	4	1	Bldg. 9767-3, 9201-5	F	4	1	Bldg. 9204-3, 9204-1, 9720-2	F	4	1	Bldg. 9204-4	N	4	1	Bldg. 9103	
C	4	1	Bldg. 9215																									
D	4	1	Bldg. 9720-2, 9212, 9206, 9201-2																									
D	4	1	Bldg. 9767-3, 9201-5																									
F	4	1	Bldg. 9204-3, 9204-1, 9720-2																									
F	4	1	Bldg. 9204-4																									
N	4	1	Bldg. 9103																									

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ROBERT J. SPENCE

Name and official title of owner, operator or authorized representative

Signature

Date signed

Optional Attachments

- ☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

FEB 24 1994

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> FOR OFFICIAL USE ONLY ID # _____ Date Received _____ </div>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u> Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574-7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576-1005</u> 24 Hr. Phone <u>(615) 576-1005</u>																													
	Important: Read all instructions before completing form					Reporting Period From January 1 to December 31, 19 <u>93</u>		☐ Check if information below is identical to the information submitted last year.																								
	Chemical Description		Physical and Health Hazards <small>(check all that apply)</small>		Inventory		Storage Codes and Locations (Non-Confidential) <small>Container Type Temperature Pressure</small> Storage Locations		Optional																							
	CAS <u>007440597</u> Trade Secret ☐ Chem. Name <u>Helium</u> Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☐ Liquid ☒ Gas ☐ EHS EHS Name _____		☒ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)		☐ <u>06</u> Max. Daily Amount (code) ☐ <u>06</u> Avg. Daily Amount (code) ☐ <u>365</u> No. of Days On-Site (days)		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>A</td><td>4</td><td>2</td><td>Bldg. 9977-1</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9204-3, 9959, 9212, 9206</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9737, 9201-1, 9204-2E</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9204-4, 9201-5N, 9709</td></tr> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9404-16, 9201-3, 9215, 9723-25</td></tr> <tr><td>P</td><td>4</td><td>2</td><td>Bldg. 9401-2</td></tr> </table>		A	4	2	Bldg. 9977-1	L	4	2	Bldg. 9204-3, 9959, 9212, 9206	L	4	2	Bldg. 9737, 9201-1, 9204-2E	L	4	2	Bldg. 9204-4, 9201-5N, 9709	L	4	2	Bldg. 9404-16, 9201-3, 9215, 9723-25	P	4	2	Bldg. 9401-2
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L	4	2	Bldg. 9404-16, 9201-3, 9215, 9723-25																													
P	4	2	Bldg. 9401-2																													
CAS <u> </u> Trade Secret ☐ Chem. Name <u>Hydraulic Oil</u> Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)		☐ <u>04</u> Max. Daily Amount (code) ☐ <u>04</u> Avg. Daily Amount (code) ☐ <u>365</u> No. of Days On-Site (days)		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>C</td><td>4</td><td>1</td><td>Bldg. 9201-5</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9712, 9720-2, 9201-5, 9212</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9204-2, 9998, 9737, 9610-2</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9720-13</td></tr> <tr><td>F</td><td>4</td><td>1</td><td>Bldg. 9610-2</td></tr> </table>		C	4	1	Bldg. 9201-5	D	4	1	Bldg. 9712, 9720-2, 9201-5, 9212	D	4	1	Bldg. 9204-2, 9998, 9737, 9610-2	D	4	1	Bldg. 9720-13	F	4	1	Bldg. 9610-2	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>				
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D	4	1	Bldg. 9720-13																													
F	4	1	Bldg. 9610-2																													
CAS <u>001333740</u> Trade Secret ☐ Chem. Name <u>Hydrogen</u> Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☐ Liquid ☒ Gas ☐ EHS EHS Name _____		☒ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)		☐ <u>04</u> Max. Daily Amount (code) ☐ <u>03</u> Avg. Daily Amount (code) ☐ <u>365</u> No. of Days On-Site (days)		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>L</td><td>4</td><td>2</td><td>Bldg. 9204-3, 9206</td></tr> <tr><td>P</td><td>4</td><td>2</td><td>Bldg. 9401-2, 9977-2</td></tr> </table>		L	4	2	Bldg. 9204-3, 9206	P	4	2	Bldg. 9401-2, 9977-2	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>																
L	4	2	Bldg. 9204-3, 9206																													
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Certification (Read and sign after completing all sections) I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages <u>7</u> through <u>19</u> , and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 40%;"> ROBERT J. SPENCE Y-12 SITE MANAGER Name and official title of owner/operator or owner/operator's authorized representative </div> <div style="width: 30%; text-align: center;"> Signature </div> <div style="width: 20%; text-align: center;"> FEB 24 1994 Date signed </div> <div style="width: 10%;"> Optional Attachments ☐ I have attached a site plan ☐ I have attached a list of site coordinate abbreviations ☐ I have attached a description of dikes and other safeguard measures </div> </div>																																

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY		Facility Identification		Owner/Operator Name	
Specific Information by Chemical		Name <u>Oak Ridge Y-12 Plant</u>		Name <u>U.S. Department of Energy</u> Phone <u>615 576 9850</u>	
		Street <u>Bear Creek Road</u>		Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>	
		City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u>		Emergency Contact	
		SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>		Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>615 574 7172</u> 24 Hr Phone <u>615 574 7172</u>	
FOR OFFICIAL USE ONLY		ID # _____ Date Received _____		Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>615 576 1005</u> 24 Hr Phone <u>615 576 1005</u>	
Important: Read all instructions before completing form				Reporting Period From January 1 to December 31, 19 <u>93</u>	
Chemical Description		Physical and Health Hazards (check all that apply)		Inventory	
CAS <u>007447418</u> Trade Secret ☐ Chem. Name <u>Lithium Chloride</u> Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)		<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	
CAS <u>001310652</u> Trade Secret ☐ Chem. Name <u>Lithium Hydroxide</u> Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)		<u>05</u> Max. Daily Amount (code) <u>05</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	
CAS ☐ Trade Secret ☐ Chem. Name <u>Lubricating Oil</u> Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)		<u>05</u> Max. Daily Amount (code) <u>05</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	
Storage Codes and Locations (Non-Confidential)		Container Type Temperature Pressure		Storage Locations	
		D 4 1 E 4 1 E 4 1		Bldg. 9204-3, 9204-2 Bldg. 9204-4, 9204-2E, 9202 Bldg. 9204-2	
		A 4 1 G 4 1		Bldg. 9204-1 Bldg. 9202	
		C 4 1 D 4 1 D 4 1 D 4 1 D 4 1 D 4 1		Bldg. 9204-2 Bldg. 9720-2, 9212, 9204-2, 9767-13 Bldg. 9767-1, 9202, 9727-3, 9727-4 Bldg. 9204-2E, 9767-11, 9767-3, 9211 Bldg. 9610-2, 9215, 9204-4, 9201-1 Bldg. 9201-5, 9201-5H	
Certification (Read and sign after completing all sections)					
I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 1 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.					
ROBERT J. SPENCE Y-12 SITE MANAGER					
Name and official title of owner/operator or owner/operator's authorized representative					
Signature _____ Date signed _____					
Optional Attachments ☐ I have attached a site plan ☐ I have attached a list of site coordinate abbreviations ☐ I have attached a description of dikes and other safeguard measures					

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>	
	Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u>		Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>	
	FOR OFFICIAL USE ONLY ID # _____ Date Received _____			
	Important: Read all instructions before completing form Reporting Period From January 1 to December 31, 19 <u>93</u> ☐ Check if information below is identical to the information submitted last year.			

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential) Storage Locations	Container Type Temperature Pressure	Optional
CAS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Trade Secret ☐ Chem. Name <u>Lubricating Oil (cont.)</u> Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☐ No. of Days On-Site (days)	F 4 1 Bldg. 9204-1, 9204-4, 9201-5N F 4 1 Bldg. 9204-2, 9977-1, 9201-1, 9204-2L F 4 1 Bldg. 9215, 9212, 9201-3, 9201-5 N 4 1 Bldg. 9204-2E, 9204-2, 9204-4 N 4 1 Bldg. 9201-5N, 9201-1, 9201-3 N 4 1 Bldg. 9723-25	F 4 1 F 4 1 F 4 1 N 4 1 N 4 1 N 4 1	
CAS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Trade Secret ☐ Chem. Name <u>Mercury</u> Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<input type="text"/> <input type="text"/> <input type="text"/> Max. Daily Amount (code) <input type="text"/> <input type="text"/> <input type="text"/> Avg. Daily Amount (code) <input type="text"/> <input type="text"/> <input type="text"/> No. of Days On-Site (days)	C 4 1 Bldg. 9201-4 H 4 1 Bldg. 9720-26 N 4 1 Bldg. 9201-1, 9204-2E, 9720-8 N 4 1 Bldg. 9204-4	C 4 1 H 4 1 N 4 1 N 4 1	
CAS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Trade Secret ☐ Chem. Name <u>Moltan Safety Absorbent</u> Check all that apply: ☒ Pure ☐ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<input type="text"/> <input type="text"/> <input type="text"/> Max. Daily Amount (code) <input type="text"/> <input type="text"/> <input type="text"/> Avg. Daily Amount (code) <input type="text"/> <input type="text"/> <input type="text"/> No. of Days On-Site (days)	F 4 1 Bldg. 9767-13, 9204-4, 9767-1 F 4 1 Bldg. 9202, 9767-8, 9201-1, 9767-3 I 4 1 Bldg. 9204-4, 9977-1 J 4 1 Bldg. 9219, 9201-5N 9977-1	F 4 1 F 4 1 I 4 1 J 4 1	

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Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification		Owner/Operator Name		
	Name <u>Oak Ridge Y-12 Plant</u>		Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u>		
	Street <u>Bear Creek Road</u>		Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>		
	City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u>	Emergency Contact			
SIC Code <u>3 4 9 9</u> Dun & Brad Number <u>1 4 9 8 6 7 0 0 4</u>	Name <u>Plant Shift Superintendent</u> Title _____		Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u>		
FOR OFFICIAL USE ONLY ID # _____ Date Received _____		Name <u>DOE Emergency Response Center</u> Title _____		Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>	

Important: Read all instructions before completing form

Reporting Period From January 1 to December 31, 19 93☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Container Type Temperature Pressure	Storage Codes and Locations (Non-Confidential) Storage Locations	Optional
CAS <u>0 0 7 7 2 7</u> <u>3 7 9</u> Trade Secret ☐ Chem. Name <u>Nitrogen</u> Check all that apply: ☒ Pure ☒ Mix ☐ Solid ☒ Liquid ☒ Gas ☐ EHS EHS Name _____	☐ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	<u>1 1</u> Max. Daily Amount (code) <u>1 1</u> Avg. Daily Amount (code) <u>3 6 5</u> No. of Days On-Site (days)	A 4 2 Bldg. 9977-1 L 4 2 Bldg. 9215, 9204-1, 9212 L 4 2 Bldg. 9206, 9737, 9201-1, 9204-2E L 4 2 Bldg. 9401-2, 9714, 9201-5N, 9201-5 P 4 2 Bldg. 9401-2 L 7 2 Bldg. 9204-3		
CAS <u>0 0 7 7 8 2</u> <u>4 4 7</u> Trade Secret ☐ Chem. Name <u>Oxygen</u> Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☐ Liquid ☒ Gas ☐ EHS EHS Name _____	☒ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	<u>0 9</u> Max. Daily Amount (code) <u>0 8</u> Avg. Daily Amount (code) <u>3 6 5</u> No. of Days On-Site (days)	A 4 2 Bldg. 9977-1 L 4 2 Bldg. 9212, 9215, 9204-3, 9204-1 L 4 2 Bldg. 9712, 9401-3, 9201-1, 9738 L 4 2 Bldg. 9204-2E, 9401-2, 9206, 9723-25 L 4 2 Bldg. 9201-5, 9714, 9709, 9201-3 P 4 2 Bldg. 9401-2		
CAS <u>0 0 0 1 2 7</u> <u>1 8 4</u> Trade Secret ☐ Chem. Name <u>Perchloroethylene</u> Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>0 4</u> Max. Daily Amount (code) <u>0 4</u> Avg. Daily Amount (code) <u>3 6 5</u> No. of Days On-Site (days)	A 4 1 Bldg. 9204-2E D 4 1 Bldg. 9720-2 F 4 1 Bldg. 9204-4, 999B N 4 1 Bldg. 9215		

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I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 10 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

ROBERT J. SPENCE

Y-12 SITE MANAGER

Name and official title of owner/operator or owner/operator's authorized representative

Signature

Date signed

FEB 24 1994

Optional Attachments

- ☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical		Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> FOR OFFICIAL USE ONLY ID # _____ Date Received _____ </div>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u> Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>	
Important: Read all instructions before completing form		Reporting Period From January 1 to December 31, 19 <u>93</u>		☐ Check if information below is identical to the information submitted last year.	
Chemical Description	Physical and Health Hazards <small>(check all that apply)</small>	Inventory	Container Type Temperature Pressure	Storage Codes and Locations (Non-Confidential) Storage Locations	Optional
CAS <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> Trade Secret ☐ Chem. Name <u>Petroleum Oil</u> <small>Check all that apply:</small> ☐ Pure ☒ Mlx ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☒ No. of Days On-Site (days) <u>3</u> <u>6</u> <u>5</u>	<u>C</u> <u>4</u> <u>1</u> <u>D</u> <u>4</u> <u>1</u> <u>D</u> <u>4</u> <u>1</u> <u>D</u> <u>4</u> <u>1</u> <u>D</u> <u>4</u> <u>1</u> <u>F</u> <u>4</u> <u>1</u>	Bldg. <u>9714</u> Bldg. <u>9201-5N, 9712, 9201-5L</u> Bldg. <u>9720-2, 9767-13, 9727-3</u> Bldg. <u>9714, 9204-2E, 9215, 9212</u> Bldg. <u>9201-1, 9422, 9208, 9720-13</u> Bldg. <u>9204-1, 9727-3, 9201-5N</u>	
CAS <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> Trade Secret ☐ Chem. Name <u>Petroleum Oil (cont.)</u> <small>Check all that apply:</small> ☐ Pure ☐ Mlx ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☒ No. of Days On-Site (days) <u>3</u> <u>6</u> <u>5</u>	<u>F</u> <u>4</u> <u>1</u>	Bldg. <u>9204-2E, 9981, 9720-13</u>	
CAS <u>001310583</u> Trade Secret ☐ Chem. Name <u>Potassium Hydroxide</u> <small>Check all that apply:</small> ☒ Pure ☐ Mlx ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☒ No. of Days On-Site (days) <u>3</u> <u>6</u> <u>5</u>	<u>D</u> <u>4</u> <u>1</u> <u>H</u> <u>4</u> <u>1</u> <u>N</u> <u>4</u> <u>1</u> <u>N</u> <u>4</u> <u>1</u>	Bldg. <u>9720-2</u> Bldg. <u>9204-3</u> Bldg. <u>9204-4, 9201-5N, 9401-2</u> Bldg. <u>9204-2E, 9711-5</u>	
Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted through this form, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.				Optional Attachments: ☐ I have attached a site plan ☐ I have attached a list of site coordinate abbreviations ☐ I have attached a description of dikes and other safeguard measures	
Signature <u>Robert J. Spence</u> Date signed <u>FEB 24 1994</u>					

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>			Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>																									
	Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u>			Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576-1005</u> 24 Hr Phone <u>(615) 576 1005</u>																									
	FOR OFFICIAL USE ONLY ID # _____ Date Received _____																												
	Important: Read all instructions before completing form Reporting Period From January 1 to December 31, 19 <u>93</u> ☐ Check if information below is identical to the information submitted last year.																												
Chemical Description		Physical and Health Hazards <small>(check all that apply)</small>	Inventory	Storage Codes and Locations (Non-Confidential) Container Type Temperature Pressure Storage Locations	Optional																								
CAS <u>007631905</u> Trade Secret ☐ Chem. Name <u>Sodium Bisulfite</u> Check all that apply: ☐ Pure ☒ Mlx ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>03</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>A</td><td>4</td><td>1</td><td>Bldg. 9714-8, 9714-9</td></tr> <tr><td>E</td><td>4</td><td>1</td><td>Bldg. 9767-8</td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>	A	4	1	Bldg. 9714-8, 9714-9	E	4	1	Bldg. 9767-8																	
A	4	1	Bldg. 9714-8, 9714-9																										
E	4	1	Bldg. 9767-8																										
CAS <u>000497198</u> Trade Secret ☐ Chem. Name <u>Sodium Carbonate</u> Check all that apply: ☒ Pure ☒ Mlx ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9206</td></tr> <tr><td>H</td><td>4</td><td>1</td><td>Bldg. 9204-4</td></tr> <tr><td>I</td><td>4</td><td>1</td><td>Bldg. 9998, 9204-4</td></tr> <tr><td>J</td><td>4</td><td>1</td><td>Bldg. 9215, 9720-2, 9815, 9998</td></tr> <tr><td>M</td><td>4</td><td>1</td><td>Bldg. 9204-3</td></tr> <tr><td>N</td><td>4</td><td>1</td><td>Bldg. 9204-3</td></tr> </table>	D	4	1	Bldg. 9206	H	4	1	Bldg. 9204-4	I	4	1	Bldg. 9998, 9204-4	J	4	1	Bldg. 9215, 9720-2, 9815, 9998	M	4	1	Bldg. 9204-3	N	4	1	Bldg. 9204-3	
D	4	1	Bldg. 9206																										
H	4	1	Bldg. 9204-4																										
I	4	1	Bldg. 9998, 9204-4																										
J	4	1	Bldg. 9215, 9720-2, 9815, 9998																										
M	4	1	Bldg. 9204-3																										
N	4	1	Bldg. 9204-3																										
CAS <u>007647145</u> Trade Secret ☐ Chem. Name <u>Sodium Chloride</u> Check all that apply: ☒ Pure ☐ Mlx ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>H</td><td>4</td><td>1</td><td>Bldg. 9204-3, 9815, 9204-2E</td></tr> <tr><td>R</td><td>4</td><td>1</td><td>Bldg. 9401-3</td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>	H	4	1	Bldg. 9204-3, 9815, 9204-2E	R	4	1	Bldg. 9401-3																	
H	4	1	Bldg. 9204-3, 9815, 9204-2E																										
R	4	1	Bldg. 9401-3																										
Optional Attachments ☐ I have attached a site plan ☐ I have attached a list of site coordinate abbreviations ☐ I have attached a description of dikes and other safeguard measures																													
I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 1 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. <div style="display: flex; justify-content: space-between;"> <div> ROBERT J. SPENCE Y-12 SITE MANAGER Name and official title of owner/operator or owner/operator's authorized representative </div> <div> Signature </div> <div> FEB 24 1994 Date signed </div> </div>																													

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>	
	Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u>		Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576 1005</u> 24 Hr Phone <u>(615) 576 1005</u>	
	FOR OFFICIAL USE ONLY ID # _____ Date Received _____			

Important: Read all instructions before completing form

Reporting Period From January 1 to December 31, 19 93

☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential) Storage Locations	Optional																								
CAS <u>001310732</u> Trade Secret ☐ Chem. Name <u>Sodium Hydroxide</u> Check all that apply: ☒ Pure ☒ Mlx ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☐ No. of Days On-Site (days)	<table border="1"> <tr><td>A</td><td>4</td><td>1</td><td>Bldg. 9404-18</td></tr> <tr><td>C</td><td>4</td><td>1</td><td>Bldg. 9815, 9206, 9204-2</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9401-3, 9815, 9206, 9201-5N</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9401-2,</td></tr> <tr><td>F</td><td>4</td><td>1</td><td>Bldg. 9201-2</td></tr> <tr><td>H</td><td>4</td><td>1</td><td>Bldg. 9204-4, 9623</td></tr> </table>	A	4	1	Bldg. 9404-18	C	4	1	Bldg. 9815, 9206, 9204-2	D	4	1	Bldg. 9401-3, 9815, 9206, 9201-5N	D	4	1	Bldg. 9401-2,	F	4	1	Bldg. 9201-2	H	4	1	Bldg. 9204-4, 9623	
A	4	1	Bldg. 9404-18																									
C	4	1	Bldg. 9815, 9206, 9204-2																									
D	4	1	Bldg. 9401-3, 9815, 9206, 9201-5N																									
D	4	1	Bldg. 9401-2,																									
F	4	1	Bldg. 9201-2																									
H	4	1	Bldg. 9204-4, 9623																									
CAS _____ Trade Secret ☐ Chem. Name <u>Sodium Hydroxide (cont.)</u> Check all that apply: ☐ Pure ☐ Mlx ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☐ No. of Days On-Site (days)	<table border="1"> <tr><td>N</td><td>4</td><td>1</td><td>Bldg. 9204-3, 9616-7, 9204-1</td></tr> <tr><td>N</td><td>4</td><td>1</td><td>Bldg. 9204-2E</td></tr> <tr><td>J</td><td>4</td><td>1</td><td>Bldg. 9201-5</td></tr> </table>	N	4	1	Bldg. 9204-3, 9616-7, 9204-1	N	4	1	Bldg. 9204-2E	J	4	1	Bldg. 9201-5													
N	4	1	Bldg. 9204-3, 9616-7, 9204-1																									
N	4	1	Bldg. 9204-2E																									
J	4	1	Bldg. 9201-5																									
CAS <u>007681529</u> Trade Secret ☐ Chem. Name <u>Sodium Hypochlorite Solutions</u> Check all that apply: ☒ Pure ☒ Mlx ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☐ No. of Days On-Site (days)	<table border="1"> <tr><td>C</td><td>4</td><td>1</td><td>Bldg. 9720-47</td></tr> <tr><td>D</td><td>4</td><td>1</td><td>Bldg. 9720-2</td></tr> <tr><td>E</td><td>4</td><td>1</td><td>Bldg. 9201-5N, 9409-2, 9409-4</td></tr> <tr><td>E</td><td>4</td><td>1</td><td>Bldg. 9409-16, 9409-12, 9409-13</td></tr> <tr><td>E</td><td>4</td><td>1</td><td>Bldg. 9409-17, 9409-18, 9409-19</td></tr> </table>	C	4	1	Bldg. 9720-47	D	4	1	Bldg. 9720-2	E	4	1	Bldg. 9201-5N, 9409-2, 9409-4	E	4	1	Bldg. 9409-16, 9409-12, 9409-13	E	4	1	Bldg. 9409-17, 9409-18, 9409-19					
C	4	1	Bldg. 9720-47																									
D	4	1	Bldg. 9720-2																									
E	4	1	Bldg. 9201-5N, 9409-2, 9409-4																									
E	4	1	Bldg. 9409-16, 9409-12, 9409-13																									
E	4	1	Bldg. 9409-17, 9409-18, 9409-19																									

Continuation (fill out and sign after completing all systems)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 12 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

ROBERT J. SPENCE

Name and official title of owner/operator or authorized representative

Signature

Date signed

Optional Attachments

- ☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

FEB 24 1994

Revised June 1990

Facility Identification				Owner/Operator Name	
Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical				Name <u>U.S. Department of Energy</u> Phone (<u>615</u>) <u>576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>	
Name <u>Oak Ridge Y-12 Plant</u> State <u>IN</u> Zip <u>37831</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>				Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone (<u>615</u>) <u>574 7172</u> 24 Hr Phone (<u>615</u>) <u>574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone (<u>615</u>) <u>576 1005</u> 24 Hr Phone (<u>615</u>) <u>576 1005</u>	
FOR OFFICIAL USE ONLY ID # _____ Date Received _____				Check if information below is identical to the information submitted last year. ☐	
Important: Read all instructions before completing form				Reporting Period From January 1 to December 31, 10 <u>93</u>	
Chemical Description		Physical and Health Hazards (check all that apply)		Inventory	
CAS <u>010101890</u> Trade Secret ☐ Chem. Name <u>Sodium Phosphate</u>		Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic) ☐		Container Type <u>J</u> Pressure <u>4</u> Temperature <u>1</u>	
Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS		Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>03</u> No. of Days On-Site (days) <u>365</u>		Storage Codes and Locations (Non-Confidential) Storage Locations Bldg. <u>9401-3</u> , <u>9720-2</u> , <u>9815</u>	
EHS Name _____					
CAS <u>007664939</u> Trade Secret ☐ Chem. Name <u>Sulfuric Acid</u>		Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic) ☒		Container Type <u>A</u> Pressure <u>4</u> Temperature <u>1</u>	
Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS		Max. Daily Amount (code) <u>05</u> Avg. Daily Amount (code) <u>05</u> No. of Days On-Site (days) <u>365</u>		Storage Codes and Locations (Non-Confidential) Storage Locations Bldg. <u>9201-4</u> , <u>9616-7</u> , <u>9404-18</u> Bldg. <u>9616</u> Bldg. <u>9401-2</u> , <u>9409-2</u> , <u>9409-4</u> , <u>9409-10</u> Bldg. <u>9409-12</u> , <u>9409-13</u> , <u>9409-17</u> Bldg. <u>9409-18</u> , <u>9409-19</u> , <u>9409-22</u> Bldg. <u>9409-23</u> , <u>9409-26</u> , <u>9409-28</u>	
EHS Name _____					
CAS _____ Trade Secret ☐ Chem. Name <u>Sulfuric Acid (cont.)</u>		Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic) ☐		Container Type <u>E</u> Pressure <u>4</u> Temperature <u>1</u>	
Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS		Max. Daily Amount (code) ☐ Avg. Daily Amount (code) ☐ No. of Days On-Site (days) <u>365</u>		Storage Codes and Locations (Non-Confidential) Storage Locations Bldg. <u>9409-29</u> , <u>9409-31</u> , <u>9409-32</u> Bldg. <u>9204-3</u> , <u>9212</u> , <u>9206</u> , <u>9204-4</u> Bldg. <u>9201-5N</u> , <u>9401-2</u> , <u>9204-2E</u> Bldg. <u>9623</u> , <u>9201-2</u> Bldg. <u>9712</u> , <u>9201-5</u> Bldg. <u>9401-2</u>	
EHS Name _____					
Optional Attachments				Optional Attachments	
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this report, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submission is true, accurate, and complete.				I have attached a site plan ☐ I have attached a list of the coordinate abbreviations ☐ I have attached a description of the site and other safeguard measures ☐	
Name and official title of authorized representative <u>ROBERT J. SPENCE</u> <u>Y-12 SITE MANAGER</u>				Date signed <u>FEB 24 1994</u>	

Revised June 1990

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>			Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>		
	Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576-1005</u> 24 Hr Phone <u>(615) 576 1005</u>					
	<div style="display: flex; justify-content: space-between;"> <div> FOR OFFICIAL USE ONLY ID # _____ Date Received _____ </div> <div> ☐ Check if information below is identical to the information submitted last year. </div> </div>					
	Important: Read all instructions before completing form Reporting Period From January 1 to December 31, 19 <u>93</u>					

Chemical Description	Physical and Health Hazards <small>(check all that apply)</small>	Inventory	Container Type Temperature Pressure	Storage Codes and Locations (Non-Confidential) Storage Locations	Optional
CAS <u>000071556</u> Trade Secret ☐ Chem. Name <u>1,1,1, Trichloroethane</u> Check all that apply: ☒ Pure ☐ Mlx ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>04</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<u>D</u> <u>4</u> <u>1</u> Bldg. <u>9720-2, 9206, 9208</u>		
CAS _____ Trade Secret ☐ Chem. Name <u>Unleaded Gasoline</u> Check all that apply: ☐ Pure ☒ Mlx ☐ Solid ☒ Liquid ☒ Gas ☐ EHS EHS Name _____	☒ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>05</u> Max. Daily Amount (code) <u>04</u> Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<u>A</u> <u>4</u> <u>1</u> Bldg. <u>9754-2</u> <u>B</u> <u>4</u> <u>1</u> Bldg. <u>9714, 9754-3</u> <u>C</u> <u>4</u> <u>1</u> Bldg. <u>9999, 9767-2</u> <u>D</u> <u>4</u> <u>1</u> Bldg. <u>9720-13</u> <u>F</u> <u>4</u> <u>1</u> Bldg. <u>9204-1, 9201-1, 9767-2, 9720-41</u> <u>F</u> <u>4</u> <u>1</u> Bldg. <u>9983-44, 9811-8, 9766, 9201-2</u>		
CAS _____ Trade Secret ☐ Chem. Name <u>Unleaded Gasoline (cont.)</u> Check all that apply: ☐ Pure ☐ Mlx ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) <u>365</u> No. of Days On-Site (days)	<u>P</u> <u>4</u> <u>1</u> Bldg. <u>9712</u>		

Continuation Sheet and sign after completing all entries

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 15 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

ROBERT J. SPENCE

Y-12 SITE MANAGER

Name and official title of owner/operator or owner/operator's authorized representative

FEB 24 1994

Date signed

Optional Attachments

☐ I have attached a site plan

☐ I have attached a list of site coordinate abbreviations

☐ I have attached a description of dikes and other safeguard measures

Revised June 1990		Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY		Name Oak Ridge Y-12 Plant Street Bear Creek Road City Oak Ridge County Anderson State TN Zip 37831 SIC Code 3499 Dun & Brad Number 149867004 FOR OFFICIAL USE ONLY ID # Date Received		Name U.S. Department of Energy Phone (615) 576 9850 Mail Address P.O. Box 2001, Oak Ridge, TN 37831 Emergency Contact Name Plant Shift Superintendent Title Phone (615) 574 7172 24 Hr Phone (615) 574 7172 Name DOE Emergency Response Center Title Phone (615) 576-1005 24 Hr Phone (615) 576 1005	
Facility Identification		Important: Read all instructions before completing form		Reporting Period From January 1 to December 31, 19 93		Check if information below is identical to the information submitted last year.	
Chemical Description		Physical and Health Hazards (check all that apply)		Inventory		Storage Codes and Locations (Non-Confidential)	
CAS 010043524 Trade Secret Chem. Name Calcium Chloride Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)		☐ 0 ☐ 4 Max. Daily Amount (code) ☐ 0 ☐ 3 Avg. Daily Amount (code) ☐ 3 ☐ 6 ☐ 5 No. of Days On-Site (days)		Bldg. 9219, 9204-3 Bldg. 9219 Bldg. 9219	
CAS 001305620 Trade Secret Chem. Name Calcium Hydroxide Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)		☐ 0 ☐ 5 Max. Daily Amount (code) ☐ 0 ☐ 4 Avg. Daily Amount (code) ☐ 3 ☐ 6 ☐ 5 No. of Days On-Site (days)		Bldg. 9616-9, 9616-7, 9623 Bldg. 9616-7, 9720-4	
CAS 007440020 Trade Secret Chem. Name Nickel & Nickel Soluble Compounds Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name		☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)		☐ 0 ☐ 4 Max. Daily Amount (code) ☐ 0 ☐ 4 Avg. Daily Amount (code) ☐ 3 ☐ 6 ☐ 5 No. of Days On-Site (days)		Bldg. 9204-4 Bldg. 9204-3, 9401-2, 9204-4 Bldg. 9201-5 Bldg. 9204-4 Bldg. 9401-2 Bldg. 9401-2	
Optional Attachments		Optional Attachments		Optional Attachments		Optional Attachments	
I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages 1 through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.		Name and official title of the person certifying the information: ROBERT J. SPENCE, Y-12 SITE MANAGER		Signature: [Signature]		Date signed: FEB 24 1994	

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY Specific Information by Chemical	Facility Identification Name <u>Oak Ridge Y-12 Plant</u> Street <u>Bear Creek Road</u> City <u>Oak Ridge</u> County <u>Anderson</u> State <u>TN</u> Zip <u>37831</u> SIC Code <u>3499</u> Dun & Brad Number <u>149867004</u>		Owner/Operator Name Name <u>U.S. Department of Energy</u> Phone <u>(615) 576 9850</u> Mail Address <u>P.O. Box 2001, Oak Ridge, TN 37831</u>																					
	FOR OFFICIAL USE ONLY ID # _____ Date Received _____		Emergency Contact Name <u>Plant Shift Superintendent</u> Title _____ Phone <u>(615) 574 7172</u> 24 Hr Phone <u>(615) 574 7172</u> Name <u>DOE Emergency Response Center</u> Title _____ Phone <u>(615) 576-1005</u> 24 Hr Phone <u>(615) 576 1005</u>																					
	Important: Read all instructions before completing form				Reporting Period From January 1 to December 31, 19 <u>93</u>	☐ Check if information below is identical to the information submitted last year.																		
	Chemical Description	Physical and Health Hazards <small>(check all that apply)</small>	Inventory	Storage Codes and Locations (Non-Confidential) Storage Locations	Optional																			
CAS <u> </u> Trade Secret ☐ Chem. Name <u>Nickel & Nickle Soluble Compounds (cont.)</u> Check all that apply: ☒ Pure ☒ Mlx ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name _____	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	☐ Max. Daily Amount (code) ☐ Avg. Daily Amount (code) <u>3</u> <u>6</u> <u>5</u> No. of Days On-Site (days)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Container Type</th> <th>Temperature</th> <th>Pressure</th> <th>Storage Locations</th> </tr> <tr> <td>L</td> <td>4</td> <td>1</td> <td>Bldg. 9720-2, 9401-2</td> </tr> <tr> <td>M</td> <td>4</td> <td>1</td> <td>Bldg. 9204-3</td> </tr> <tr> <td>N</td> <td>4</td> <td>1</td> <td>Bldg. 9201-3, 9201-5</td> </tr> <tr> <td>D</td> <td>4</td> <td>1</td> <td>Bldg. 9401-2</td> </tr> </table>	Container Type	Temperature	Pressure	Storage Locations	L	4	1	Bldg. 9720-2, 9401-2	M	4	1	Bldg. 9204-3	N	4	1	Bldg. 9201-3, 9201-5	D	4	1	Bldg. 9401-2	
Container Type	Temperature	Pressure	Storage Locations																					
L	4	1	Bldg. 9720-2, 9401-2																					
M	4	1	Bldg. 9204-3																					
N	4	1	Bldg. 9201-3, 9201-5																					
D	4	1	Bldg. 9401-2																					
CAS <u>000584849</u> Trade Secret ☐ Chem. Name <u>2,4 Toluene Diisocyanate</u> Check all that apply: ☐ Pure ☐ Mlx ☐ Solid ☐ Liquid ☐ Gas ☒ EHS EHS Name <u>2,4 Toluene Diisocyanate</u>	☐ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>0</u> <u>2</u> Max. Daily Amount (code) <u>0</u> <u>2</u> Avg. Daily Amount (code) <u>3</u> <u>6</u> <u>5</u> No. of Days On-Site (days)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Container Type</th> <th>Temperature</th> <th>Pressure</th> <th>Storage Locations</th> </tr> <tr> <td>L</td> <td>4</td> <td>2</td> <td>Bldg. 9720-19</td> </tr> </table>	Container Type	Temperature	Pressure	Storage Locations	L	4	2	Bldg. 9720-19													
Container Type	Temperature	Pressure	Storage Locations																					
L	4	2	Bldg. 9720-19																					
CAS <u>007664417</u> Trade Secret ☐ Chem. Name <u>Ammonia</u> Check all that apply: ☒ Pure ☐ Mlx ☐ Solid ☐ Liquid ☒ Gas ☒ EHS EHS Name <u>Ammonia</u>	☒ Fire ☒ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	<u>0</u> <u>2</u> Max. Daily Amount (code) <u>0</u> <u>2</u> Avg. Daily Amount (code) <u>3</u> <u>6</u> <u>5</u> No. of Days On-Site (days)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Container Type</th> <th>Temperature</th> <th>Pressure</th> <th>Storage Locations</th> </tr> <tr> <td>L</td> <td>4</td> <td>2</td> <td>Bldg. 9959</td> </tr> </table>	Container Type	Temperature	Pressure	Storage Locations	L	4	2	Bldg. 9959													
Container Type	Temperature	Pressure	Storage Locations																					
L	4	2	Bldg. 9959																					
Certification: (Read and sign after completing all sections) I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through <u>19</u> , and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> ROBERT J. SPENCE <u>Y-12 SITE MANAGER</u> <small>Name and official title of owner/operator or owner/operator's authorized representative</small> </div> <div style="width: 30%; text-align: center;"> <small>Signature</small> </div> <div style="width: 20%; text-align: center;"> FEB 24 1994 <small>Date signed</small> </div> </div>				Optional Attachments ☐ I have attached a site plan ☐ I have attached a list of site coordinate abbreviations ☐ I have attached a description of dikes and other safeguard measures																				

Revised June 1990

Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY		Facility Identification		Owner/Operator Name	
Name Oak Ridge Y-12 Plant		Name U.S. Department of Energy		Phone (615) 576 9850	
Street Bear Creek Road		Mail Address P.O. Box 2001, Oak Ridge, TN 37831			
City Oak Ridge		County Anderson		State TN Zip 37831	
Dun & Brad Number		1 1 4 9 8 6		7 0 0 4	
SIC Code 3 4 9 9		FOR OFFICIAL USE ONLY		Emergency Contact	
Name Plant Shift Superintendent		Title		Phone (615) 574 7172	
24 Hr Phone (615) 574 7172		Name DOE Emergency Response Center		Title	
Phone (615) 576 1005		24 Hr Phone (615) 576 1005			
Check if information below is identical to the information submitted last year.		Reporting Period From January 1 to December 31, 19 93		Check if information below is identical to the information submitted last year.	
Chemical Description		Physical and Health Hazards		Inventory	
CAS 0 0 7 6 4 7 0 1 0 0		Trade Secret		Storage Codes and Locations (Non-Confidential)	
Chem. Name Hydrochloric Acid		Fire Sudden Release of Pressure Reactivity Immediate (acute) Delayed (chronic)		Storage Locations	
Check all that apply: Pure Mixture Solid Liquid Gas EHS		X X X X X		Bldg. 9204-2	
EHS Name Hydrochloric Acid				Bldg. 9401-2, 9201-5	
CAS 0 0 7 6 6 4 3 9 3		Trade Secret		Bldg. 9204-3, 9201-5, 9401-3	
Chem. Name Hydrogen Fluoride		Fire Sudden Release of Pressure Reactivity Immediate (acute) Delayed (chronic)		Bldg. 9206, 9201-5N, 9204-4	
Check all that apply: Pure Mixture Solid Liquid Gas EHS		X X X X X		Bldg. 9401-2, 9204-2E	
EHS Name Hydrogen Fluoride				Bldg. 9212	
CAS 0 0 7 6 9 7 3 7 2		Trade Secret		Bldg. 9212, 9720-2, 9401-2, 9204-2E	
Chem. Name Nitric Acid		Fire Sudden Release of Pressure Reactivity Immediate (acute) Delayed (chronic)		Bldg. 9201-5N	
Check all that apply: Pure Mixture Solid Liquid Gas EHS		X X X X X			
EHS Name Nitric Acid				Bldg. 9201-5, 9818, 9206, 9204-4	
CAS 0 0 7 6 9 7 3 7 2		Trade Secret		Bldg. 9204-3	
Chem. Name Nitric Acid		Fire Sudden Release of Pressure Reactivity Immediate (acute) Delayed (chronic)		Bldg. 9204-3, 9212, 9720-2, 9401-2	
Check all that apply: Pure Mixture Solid Liquid Gas EHS		X X X X X		Bldg. 9201-5N, 9204-4, 9204-2E	
EHS Name Nitric Acid				Bldg. 9201-5	
				Bldg. 9207	
Optional Attachments		Optional Attachments		Optional Attachments	
I certify, under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 19, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.		Signature		Date signed	
Name and official title of responsible official: ROBERT J. SPENCE		Signature		Date signed	
Y-12 SITE MANAGER		Signature		Date signed	
Name and official title of contractor's authorized representative		Signature		Date signed	
Name and official title of contractor's authorized representative		Signature		Date signed	

19 FEB 24 1994

I have attached a site plan
I have attached a list of site
coordinates abbreviations
I have attached a description of
dikes and other safeguard measures

[illegible]

Distribution:

Recipients as designated by the author plus

A. K. Lee/DOE-OSTI, 9731, MS-8175 (2)
Y-12 Central Files, 9711-5, MS-8169