Collier FXI

United States Government

Department of Energy

Oak Ridge Operations

# memorandum

#116

01276

DATE: August 31, 1990

REPLY TO ATTN OF: EW-92:Moore

SUBJECT: **LISTING OF WASTE-RELATED FACILITIES AT THE OAK RIDGE NATIONAL LABORATORY**

TO: W. D. Adams, Assistant Manager for Environmental Restoration and Waste Management, EW-90
R. L. Egli, Assistant Manager for Energy Research and Development, ER-10

Over the past several months, our staffs have developed a listing of waste-related facilities at ORNL. An extremely detailed list of those facilities with the responsible organizational lead (AMERD or AMERWM) is attached for your information. This list will be updated periodically to reflect changes. The list will also be useful in implementing the Memorandum Of Agreement between AMERD and AMERWM. The list should be modified to include only major AMERWM facilities, if a facility listing is required by HQ program offices.

Douglas Underwood for
L. L. Radcliffe, Director
Waste Management Division

8/31/90
Date

Thomas M. Jelinek
T. M. Jelinek, Director
Energy Programs Division

8-31-90
Date

#116

ATTACHMENT

## WASTE CATEGORIES


| WASTE AREA | GENERAL LEAD | PAGE NO. |
|---|---|---|
| TRANSURANIC WASTE | AMERWM | 2 |
| SOLID WASTE | AMERWM | 3 |
| LIQUID WASTE | AMERWM | 4 |
| GASEOUS WASTE | AMERWM | 7 |
| PROCESS WASTE | AMERWM | 8 |
| HAZARDOUS WASTE | AMERWM | 9 |
| MIXED WASTE | AMERWM | 10 |
| SANITARY WASTE (except solid sanitary waste landfills) | AMERD | 10 |

## WASTE RELATED FACILITIES AT ORNL

TRU WASTE FACILITIES

AMERD

7920 - Radiochemical Engineering Development Center (and 7930 TRU processes)
3019 - Radiochemical Processing Pilot Plant
2026 - High Radiation Level Analytical Laboratory
5505 - Transuranium Research Lab. Isotopes Area Generation

AMERWM

SWSA 5 Area
7823 Temporary CH-TRU Staging Facility
7824 Waste Examination and Assay
7834 CH-TRU Storage Facility
7826 CH-TRU Storage Facility
7827 Shielded Dry Well
7855 RH TRU Storage Bunker
7829 Shielded Dry Well
7831 Waste Compaction Facility
7879 TRU SLLW Staging Facility
7876 HP Office Trailer
SWSA 5 North (28 trenches & 8 vaults)

FUTURE PROJECTS

CH TRU Repackaging Facility
Waste Characterization and Certification Facility
7880 Waste Handling and Packaging Plant
7879 TRU SLLW Staging Facility
7572 CH TRU Waste Storage Facility
7883 RH TRU Waste Storage Bunker I
RH TRU Waste Storage Bunker II

## WASTE RELATED FACILITIES AT ORNL

LOW LEVEL WASTE FACILITIES - SOLID

AMERWM

SWSA 6 AREA

7878 Waste Grouting Facility

7842 SWSA 6 Staging and Equipment Building

Concrete Silos

Concrete Silos with Containment Wells

Double Walled Pipe Wells

Pipe Lined Auger Hole Wells

U235 Fissile Waste Disposal

Trench Disposal

Asbestos Waste Disposal

Biological Waste Disposal

Suspect Waste Disposal

Tumulus I Demonstration Project

Tumulus II Disposal Facility

Hill Cut Disposal Demonstration

Melton Valley Waste Management Facilities

Emergency Avoidance Campaign

Solidification Storage Area

NEW PROJECTS

SWSA 7 (alternate LLWDDD site)

Class III/IV Retrievable Storage

Dry Cask Storage Facility (New)

SWSA 6 Improvements

Interim Waste Management Facility

## WASTE RELATED FACILITIES AT ORNL

LOW LEVEL WASTE FACILITIES - LIQUID

AMERWM

| | |
|---|---|
| | Bethel and Melton Valley LLW CAT System |
| 3039 | Central Off Gas Scrubber System |
| 3130 | Waste Operations Control Center |
| 2531 | Evaporator Facility (C-1, C-2) |
| 2537 | Evaporator Storage Tanks (W-21, W-22, W-23) (13,000 gal) |
| 7830 | Melton Valley Storage Tanks (W-24 to W-31) (each 50,000 gal) |
| 7830A | Decontaminated Waste Storage Tank |
| 7567 | Central Pumping Station |
| 7877 | Waste Solidification Facility |
| 7860 | New Hydrofracture Surface Facilities |

Waste Management Collection Tanks:

| | |
|---|---|
| 2026 | East of Bldg. 2026 |
| WC-3 | S. of Bldg. 3025 (1,000 gal) (UST) |
| WC-4 | W. of Bldg. 3026C (750 gal) (UST) |
| WC-2 | W. of Bldg. 3030 (1,000 gal) (UST) |
| WC-19 | N. of Bldg. 3047 (2,250 gal) (UST) |
| W-16 | S. Tank Farm (3026) (1,000 gal) |
| W-17 | S. Tank Farm (3026C) (1,000 gal) |
| W-18 | S. Tank Farm (3026C) (1,000 gal) |
| W-12 | W. Bldg. 3504 (3507) (700 gal) |
| WC-7 | S. of Bldg. 3504 (1,100 gal) (UST) |
| WC-9 | S. of Bldg. 3505 (2,150 gal) (UST) |
| WC-5 | S. of Bldg. 3503 (1,000 gal) (UST) |
| WC-6 | S. of Bldg. 3503 (500 gal) (UST) |
| WC-8 | S. of Bldg. 3503 (1,000 gal) (UST) |
| WC-10 | S. of Bldg. 3587 (2,300 gal) |
| WC-11 | S. of Bldg. 3587 (4,600 gal) |
| WC-12 | S. of Bldg. 3587 (1,000 gal) |
| WC-13 | S. of Bldg. 3587 (1,000 gal) |
| WC-14 | S. of Bldg. 3587 (1,000 gal) |
| WC-20 | Bldg. 7569 (10,000 gal) |
| T-1 | W. of Bldg. 7567 (15,000 gal) |
| T-2 | S. of Bldg. 7567 (15,000 gal) |
| S-1 | Bldg. 3544 (1,300 gal sump) |
| L-3 | A/B Bldg. 3544 (2,600 gal sump) |
| L-2 | Bldg. 3544 (8,000 gal) |
| L-1 | Bldg. 3544 Clarifier (12,000 gal) |
| L-6 | 3544 Sludge Tank (5,600 gal) |
| T-13 | NHF (4,000 gal) |
| T-14 | NHF (4,850 gal) |
| 7910A | S. of Bldg. 7910 |
| L-11 | Bldg. 3544 (400 gal) |

## WASTE RELATED FACILITIES AT ORNL

LOW LEVEL WASTE FACILITIES - LIQUID

AMERWM PROJECTS
Bethel Valley LLW CAT System
Melton Valley LLW CAT System
Graphite Reactor LLW Storage & Transfer GPP
Containment Seal for Evaporator Service Tanks
Contaminated Sump Pump Modifications
Replacement of WC-9 Pumping Station

AMERD
Process/Surge/Collection Tanks:

7602 Tank Systems

| | | | |
|---|---|---|---|
| S-223 | N. of Bldg. 3517 | (2,500 gal) | |
| S-324 | N. of Bldg. 3517 | (1,000 gal) | |
| S-523 | N. of Bldg. 3517 | (1,000 gal) | |
| F-201 | Bldg. 3525 | (50 gal) | |
| F-501 | S. of Bldg. 3525 | (200 gal) | |
| F-111 | Bldg. 7920 | (125 gal) | |
| F-126 | Bldg. 7920 | (1,200 gal) | |
| B-2-T | Bldg. 7930 | (1,870 gal) | |
| B-3-T | Bldg. 7930 | (1,870 gal) | |
| C-6-T | Bldg. 7930 | (700 gal) | |
| 4501-C | Bldg. 4501 | (100 gal) | |
| 4501-D | Bldg. 4501 | (100 gal) | (E) |
| 3002-A | Bldg. 4501 | (1,600 gal) | |
| P-23 | Bldg. 3019 | (10,526 gal) | (E) |
| P-24 | Bldg. 3019 | (10,526 gal) | |
| N1 | Bldg. 3019 | (58 gal) | |
| N-2 | Bldg. 3019 | (303 gal) | (E) |
| N-4 | Bldg. 3019 | (303 gal) | (E) |
| N-7 | Bldg. 3019 | (150 gal) | (E) |
| N-16 | Bldg. 3019 | (150 gal) | |
| N-71 | Bldg. 3019 | (276 gal) | |
| P-3 | Bldg. 3019 | (197 gal) | |
| P-4 | Bldg. 3019 | (197 gal) | |
| P-6 | Bldg. 3019 | (842 gal) | (E) |
| S-12 | Bldg. 3019 | (211 gal) | (E) |
| V-7 | Bldg. 3019 | (72 gal) | |
| N-8 | Bldg. 3019 | (150 gal) | (E) |
| P-25 | Bldg. 3019 | (10,526 gal) | (E) |
| P-50A | Bldg. 3019 | (75 gal) | (OOS) |
| P-50B | Bldg. 3019 | (75 gal) | (OOS) |
| R2 | Bldg. 3019 | (316 gal) | (E) |
| R25 | Bldg. 3019 | (57 gal) | (E) |
| R3 | Bldg. 3019 | (316 gal) | (E) |
| R9 | Bldg. 3019 | (316 gal) | |
| S20 | Bldg. 3019 | (56 gal) | (E) |
| S2 | Bldg. 3019 | (447 gal) | (E) |
| S30 | Bldg. 3019 | (56 gal) | (E) |

## WASTE RELATED FACILITIES AT ORNL

LOW LEVEL WASTE FACILITIES - LIQUID

AMERD

Process/Surge/Collection Tanks:

| | | | | |
|---|---|---|---|---|
| S4 | Bldg. 3019 | (324 gal) | (E) | |
| S5 | Bldg. 3019 | (151 gal) | (OOS) | |
| T20 | Bldg. 3019 | (50 gal) | (E) | |
| U1-U10 | Bldg. 3019 | (237 gal) | (E) | |
| V1 | Bldg. 3019 | (65 gal) | | |
| X11 | Bldg. 3019 | (53 gal) | (E) | |
| X14 | Bldg. 3019 | (63 gal) | (E) | |
| X15 | Bldg. 3019 | (53 gal) | (E) | |
| X17 | Bldg. 3019 | (63 gal) | (E) | |
| F105 | Bldg. 3047 | (102 gal) | (E) | |
| 3085 A-1 | Bldg. 3085 | (20,000 gal) | | |
| 4505A | Bldg. 3505 | (500 gal) | (E) | |
| 4505B | Bldg. 4505 | (500 gal) | (E) | |
| T-416 | Bldg. 4507 | (78 gal) | (NIU) | |
| T-417 | Bldg. 4507 | (78 gal) | (NIU) | |
| T-25 | Bldg. 4507 | (55 gal) | (NIU) | |
| 7025A | Bldg. 7025 | (185 gal) | (UST) | |
| W-1T | Bldg. 3028 | (500 gal) | (UST) | (E) |
| F-104 | Bldg. 3047 | (296 gal) | (UST) | (E) |
| S-424 | N. of Bldg. 3517 | (500 gal) | (UST) | (OOS) |

AMERD PROJECTS

4500 LLLWCAT GPP
LLW Storage/Transfer BSR & ORR GPP
Pretreatment of REDC LLLW
Pretreatment of FPDL LLLW

## WASTE RELATED FACILITIES AT ORNL

LOW LEVEL WASTE FACILITIES - GASEOUS

AMERWM

Responsible for the real time monitoring of gaseous waste effluents from ORNL process stacks.

Responsible for the gaseous collection systems that begin at the exhaust system and run to the stack. This includes all the waste facilities already identified with stacks as well as the following operational stacks starting five feet outside the generator facility served:

3039 Stack (Central Stack)

AMERWM is responsible for funding the disposal of the filter media for all stacks.

AMERD

Responsible for the replacement and maintenance of filter systems for gas ventilation. Responsible for obtaining stack samples for compliance purposes and maintaining the following stacks:

2026 Stack
7911 Stack
3020 Stack
6010 Stack
7025 Stack
7512 Stack

## WASTE RELATED FACILITIES AT ORNL

PROCESS WASTE FACILITIES

AMERWM

| | |
|---|---|
| 3518 | Neutralization Facility |
| 3544 | Process Waste Treatment Plant |
| | Process Waste CAT System |

Collection Tanks:

| | |
|---|---|
| F-2017 | Bldg. 7961 (100,000 gal) |
| F-2018 | Bldg. 7961 (100,000 gal) |
| F-2019 | Bldg. 7961 (100,000 gal) |
| F-2020 | Bldg. 7961 (100,000 gal) |
| F-2101 | SW of 3544 (350,000 gal) |
| F-2102 | SW of 3544 (350,000 gal) |
| | Pond 3539 |
| | Pond 3540 |
| 3524 | Equalization Basin |
| 7906 | Holding Basin |
| 7907 | Holding Basin |
| 7908 | Holding Basin |
| 3608 | Nonradiological Wastewater Treatment Plant(over 20 tank systems) |
| 7935 | Equipment Cleaning Facility |
| 7935A | Bldg. 7935 (8,000 gal) (UST) |

AMERD

| | |
|---|---|
| 7905 | Holding Basin |
| 4508A | Process Waste Sump (500 gal) |
| 4515A | Process Waste (1,317 gal) |
| F-15 | Waste Water (13,000 gal) |

PROJECTS

AMERWM

West Addition to 3544
Bldg. 3544 Ion Exchange Evaporator Room Upgrade
Manhole Monitors Process Waste
PWTP Feed Capacity Increase
Nitric Acid Unloading Dike
Zeolite Dewatering Station
Increase PWTP CS removal capacity

AMERD

Hot Cell Consolidation
Reactor Waste Minimization
Cobalt Removal System/HFIR

## WASTE RELATED FACILITIES AT ORNL

### HAZARDOUS WASTE FACILITIES

AMERWM

| | |
|---|---|
| 7652 | Hazardous Waste Storage Facility |
| 7653 | Chemical Waste Disposal Facility (Lab Packs) |
| 7651 | Clean Oil Storage Facility |
| 7666 | Spill Response Storage Facility |
| 7661 | Electrical Utility Bldg |
| 7507 | PCB Storage Facility |
| 7667 | Chemical Waste Detonation Facility |
| 7075A&B | Waste Chemical Storage Area |
| 7659 | Gas Cylinder Venting Facility |
| 3610 | Environmental Response Storage Facility |
| 7875 | Environmental Response Storage Facility |
| 7934 | Photographic Treatment Facility and Storage |
| 7830A | Rad Waste Oil (5,000 gal) (UST) |
| 7860A | Rad Oils (3,700 gal) (UST) |

AMERD

| | |
|---|---|
| 4500N | Photographic Laboratory (G-43) |
| 4500S | Photographic Waste (G-63),(T-1),(T-3) |
| 2521A | Photographic Waste Storage (1,000 gal) |
| 2525A&B | Waste Oil Storage 1,000 gal total |
| 3025A | Photographic Waste (54 gal) |
| 7021A | Used Oil (480 gal) (E) |
| 7009E | Waste Oil (5,000 gal) (UST) |

## WASTE RELATED FACILITIES AT ORNL

MIXED WASTE

AMERWM

| | |
|---|---|
| 7654 | Long Term Hazardous (Mixed) Waste Storage Facility |
| 7507W | Mixed Hazardous Waste Storage Pad |

SANITARY WASTE

AMERD

| | |
|---|---|
| 2521 | ORNL Sewage Treatment Plant (X01) |
| | Coal Yard Runoff Treatment System |
| | ORNL Recontour Site |
| | Storm Sewer System |

Tank Codes

| | |
|---|---|
| E | Empty |
| OOS | Out of Service |
| NIU | Not In Use |
| UST | Underground Storage Tank |