LOCKHEED MARTIN

ENVIRONMENTAL RESTORATION PROGRAM

ORNL/ER-415

Final Deactivation Report on the Radioisotope Area Services, Building 3034, at Oak Ridge National Laboratory, Oak Ridge, Tennessee

This document has been approved by the ORNL Technical Information Office for release to the public. Date: 9/12/97

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MANAGED BY
LOCKHEED MARTIN ENERGY SYSTEMS, INC.
FOR THE UNITED STATES
DEPARTMENT OF ENERGY

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ORNL/ER-415

Final Deactivation Report on the Radioisotope Area Services, Building 3034, at Oak Ridge National Laboratory, Oak Ridge, Tennessee

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Environmental Management Activities at
OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee 37831
managed by
LOCKHEED MARTIN ENERGY SYSTEMS, INC.
for the
U.S. DEPARTMENT OF ENERGY
under contract DE-AC05-84OR21400

DISCLAIMER

PREFACE

This is the *Final Deactivation Project Report on the Radioisotope Area Services, Building 3034, at Oak Ridge National Laboratory, Oak Ridge, Tennessee* (ORNL/ER-415). Although this element of work is not part of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, it was accomplished in accordance with the substantive requirements of the Act. This work was performed under Work Breakdown Structure 1.6.6.2.10.02 (Activity Data Sheet 6504IS, "Isotopes Facilities Deactivation Project"). This document provides the Environmental Management and Enrichment Facilities Program with the final report on the deactivation of Bldg. 3034.

CONTENTS

TABLES

ABBREVIATIONS

EM-40	Department of Energy Office of Environmental Restoration
EM-60	Office of Nuclear Materials and Facility Stabilization Program
MOA	Memorandum of Agreement
ORNL	Oak Ridge National Laboratory
P&E	Plant and Equipment
RCRA	Resource Conservation and Recovery Act
S&M	surveillance and maintenance

DEFINITIONS

Deactivation	The process of placing a facility in a safe and stable condition to minimize the long-term cost of a surveillance and maintenance program that is protective of workers, the public, and the environment until decommissioning is completed.
Decommissioning	Refers to the ultimate disposition of a facility. Also substitutes for previously used "Decontamination and Decommissioning."
Decontamination	The removal or reduction of radioactive or hazardous contamination from facilities, equipment, or soils by washing, heating, chemical or electro-chemical action, mechanical cleaning, or other techniques to achieve a stated objective or end condition.
End Point	A detailed specification for the final deactivation condition of areas and hardware within a facility and related documentation. An individual milestone towards the deactivation and/or the decommissioning of a facility.
End Point Technical Information	A compilation of documents to support end point conclusions.
Stakeholder	Individuals and organizations (i.e. regulators, local municipalities, the public, etc.) who may be directly or indirectly impacted by activities associated with the Isotopes Facilities Deactivation Project.
Turnover Package	A compilation of project-related documents to be given to a postdeactivation organization.

EXECUTIVE SUMMARY

The purpose of this report is to document the condition of Bldg. 3034, after completion of deactivation activities as outlined by the Department of Energy Office of Nuclear Materials and Facility Stabilization Program (EM-60) guidance documentation. This report outlines the activities conducted to place the facility in a safe and environmentally sound condition for transfer to the Department of Energy Office of Environmental Restoration (EM-40) Program.

This report provides a history and profile of Bldg. 3034 before commencement of deactivation activities and a profile of the building after completion of deactivation activities. Turnover items, such as the Postdeactivation Surveillance & Maintenance Plan, remaining hazardous materials, radiological controls, Safeguards and Security, quality assurance, facility operations, and supporting documentation provided in the Office of Nuclear Materials and Facility Stabilization Program (EM-60) Turnover Package, are discussed.

Building 3034 will require access to facilitate required surveillance and maintenance (S&M) activities to maintain the building safety envelope. Building 3034 was stabilized during deactivation so that when transferred to the EM-40 program, only a minimal S&M effort would be required to maintain the building safety envelope. In addition to the minimal S&M activities, the building will be occupied by the maintenance coordinator and the S&M supervisor for the Isotopes Facilities Deactivation Project. The exterior doors are locked when unoccupied to prevent unauthorized access.

All materials have been removed from the building. Piping and alarms have been deactivated.

1. INTRODUCTION

1.1 PURPOSE

This report documents the condition of Bldg. 3034 after completion of deactivation activities as outlined by the Department of Energy Office of Nuclear Materials and Facility Stabilization (EM-60) Program guidance documentation. This report outlines the activities conducted to place the facility in a safe and environmentally sound condition for transfer to the Department of Energy Office of Environmental Restoration (EM-40) Program.

This report provides a history and profile of the facility before commencement of deactivation activities and a profile of the building after completion of deactivation activities. Turnover items, such as the Postdeactivation Surveillance & Maintenance Plan, remaining hazardous materials, radiological controls, Safeguards and Security, quality assurance, facility operations, and supporting documentation provided in the Office of Nuclear Materials and Facility Stabilization Program (EM-60) Turnover Package, are discussed.

1.2 SCOPE

This report addresses the activities performed during deactivation associated with Bldg. 3034 to place the facility in a safe and environmentally sound condition to await decommissioning, the status of the facility, and the activities required to maintain the facility following deactivation. Attachment 1, "Building 3034 Floor Plan," provides a floor plan of Bldg. 3034 that illustrates the physical boundaries and scope of this Final Deactivation Project Report, which is limited to Bldg. 3034.

2. BACKGROUND

2.1 FACILITY DESCRIPTION

Building 3034 is a steel-frame structure covered by corrugated aluminum siding. The single-story facility has a floor area of 825 ft^2. The building houses the electrical distribution system for the isotopes area, serves as a storage area, serves as a stores drop point for supplies for the isotope area, and currently has two offices for the maintenance coordinator and the surveillance and maintenance (S&M) supervisor for the area and one other person.

No radioactive operations were ever performed in the building. The building served, at one time, as the area Plant and Equipment (P&E) Division services shop.

2.2 FACILITY HISTORY

Building 3034 was constructed in 1950 as part of the Isotopes Program. The building originally was a storage facility and the electrical distribution facility for the Oak Ridge National Laboratory (ORNL) isotopes area. It still functions as the electrical distribution facility and a storage area and has office space for two individuals. The P&E area service shop was also housed in this building.

3. FACILITY STATUS

3.1 PREDEACTIVATION FACILITY STATUS

Following approximately 40 years of operations, Bldg. 3034 was surplused. General housekeeping was maintained at a minimal level, and the building structural integrity was allowed to lapse.

3.1.1 Hazards Analysis

No predeactivation hazards analysis was performed. No process activities were performed in Bldg. 3034, and it was determined that the facility did not warrant a hazard analysis or safety analysis.

3.1.2 Internal Spaces

The general area contained furniture, cabinets, and various miscellaneous items used when the facility was in operation. The lead-based paint is chipping and peeling, providing a means of transferring contamination and endangering personnel and the environment. Approximately three-quarters of the facility has been scraped and painted.

Predeactivation radioactive contamination levels and radiation levels for the general area are listed in Tables 1 and 2, respectively. Predeactivation hazardous materials and waste located in the general area are listed in Table 3.

3.1.3 Building Structure and External Spaces

The structure and roof of Bldg. 3034 were inspected and found to be in generally good condition, with the exception of water in leakage through various paths.

3.1.4 Process, Utility, and Support Systems

3.1.4.1 Electrical power system

Before deactivation, the electrical power system provided power distribution for the electrical service to the entire isotopes area as well as to Bldg. 3034. Typical electrical loads were the lighting, heaters, and exhaust fans. A 480 VAC outlet also existed for use with welders and other equipment requiring this service.

3.1.4.2 Fire protection system

The fire protection system is a dry pipe fire suppression system for Bldg. 3034 and is available for use. The general area was equipped with sprinkler heads and alarms as required by the local fire code. In addition, fire extinguishers were placed strategically in and around Bldg. 3034. The fire protection system is not believed to be contaminated.

3.1.4.3 Building steam system

The building steam system provided steam for use in heating the general area of Bldg. 3034. Two heat exchangers were located in Bldg. 3034 to provide space heating for personnel. The building steam system is not believed to be contaminated. However, the majority of the steam piping within Bldg. 3034 is lagged with asbestos insulation materials.

3.1.4.4 Potable water system

Before deactivation, the potable water system provided water to the Bldg. 3034 safety shower. The potable water system is not believed to be contaminated.

3.1.4.5 Process drain system

Before deactivation, the process drain system provided a means of removing liquids from the area floor to the ORNL process waste system and treatment facility. The process drain system is a gravity drain system.

3.1.4.6 Natural gas system

The natural gas system to Bldg. 3034 was never used. The system has remained isolated from the building since the time of its installation and is not believed to be contaminated.

3.1.4.7 Plant air system

Before deactivation, the plant air system provided 110 psig air to Bldg. 3034. The plant air system was regulated and used for process activities and instrumentation throughout the facility. The plant air system is not believed to be contaminated.

3.1.5 Radioactive Material, Contamination, and Waste

Table 1 lists the radioactive contamination levels identified on radiation surveys conducted before deactivation. The contamination in this building was minimal and was, in general, brought in with equipment, which was repaired in the shop, or by vermin, birds, and small animals.

Table 1. Predeactivation radioactive contamination levels

Identification	Description	Quantity
General area (first and second level)	alpha smear—transferable contamination	<20 dpm/100cm^2
General area (first and second level)	beta/gamma smear—transferable contamination	<200 dpm/100cm^2

Table 2 lists radiation levels identified on radiation surveys conducted before deactivation.

Table 2. Predeactivation radiation levels

Identification	Description	Quantity
General area	Fixed and transferable radiation levels	Up to 33,000 dpm One pipe from 3033A 231,000 dpm

3.1.6 Hazardous Materials and Waste

Table 3 lists the hazardous materials and waste identified during facility walkdowns before deactivation.

Table 3. Building 3034 predeactivation hazardous materials and waste

Identification	Description	Quantity
Lead-based paint	Used as wall covering throughout building.	Indeterminate
Asbestos lagging	Used as pipe lagging throughout the building	Indeterminate
PCBs	Electrical devices and transformers	Indeterminate

3.2 POSTDEACTIVATION FACILITY STATUS

Attachment 2, "Building 3034 Postdeactivation Facility Photographs," contains photographs of the building conditions following deactivation activities.

3.2.1 Deactivation End Point Completion

End point criteria for deactivation activities and end point completion documentation are not applicable for Bldg. 3034. The requirement and guidance for these program elements were not developed before Bldg. 3034 deactivation.

3.2.2 Hazards Analysis

A postdeactivation hazards screening was performed. This hazards screening placed the facility in the "other industrial" category.

3.2.3 Internal Spaces

The miscellaneous items abandoned when the facility was no longer in use have been removed from the general area. No significant combustibles remain in the general area, and the general area of Bldg. 3034 has been decontaminated to remove transferable contamination from access-required spaces. The lead-based paint is chipping and peeling, providing a means of transferring the lead and endangering personnel and the environment. Approximately three-fourths of the building has been scraped and painted. Postdeactivation radioactive contamination levels and radiation levels for this area are listed in Tables 4 and 5, respectively. Postdeactivation hazardous materials and waste located in this area are listed in Table 6.

3.2.4 Building Structure and External Spaces

The structure and roof of Bldg. 3034 were inspected and found to be in generally good condition, with the exception of some water in leakage through various paths.

3.2.5 Process, Utility, and Support Systems

3.2.5.1 Electrical power system

All electrical services for the building proper, with the exception of lighting, have been disconnected or de-energized at the main breaker box. The electrical distribution system for the remainder of the isotopes area remains in use.

3.2.5.2 Fire protection system

The fire protection system is a dry system and remains available for use if there is a fire in the building.

3.2.5.3 Building steam system

The building steam system is in use for area heating.

3.2.5.4 Potable water system

The potable water system has been isolated, drained, and abandoned in place.

3.2.5.5 Process drain system

The process drain system has been abandoned in place. However, the process drain system remains connected to the ORNL process waste system.

3.2.5.6 Natural gas system

The natural gas system has been isolated, vented, and abandoned in place.

3.2.5.7 Plant air system

The plant air system has been isolated, vented, and abandoned in place.

3.2.6 Radioactive Material, Contamination, and Waste

Table 4 lists the radioactive contamination levels identified on radiation surveys conducted following deactivation.

Table 4. Postdeactivation radioactive contamination levels

Identification	Description	Quantity
General area	Alpha smear—transferable contamination	<20 dpm/100cm^2
General area	Beta/gamma smear—transferable contamination	<200 dpm/100cm^2
Ceiling	Beta/gamma smear—transferable contamination	One spot 250 dpm/100cm^2 One spot 300 dpm/100cm^2

Table 5 lists radiation levels identified on radiation surveys conducted before deactivation:

Table 5. Postdeactivation radiation levels

Identification	Description	Quantity
General area	Fixed and transferable radiation levels	<0.1 mRem/h

3.2.7 Hazardous Materials and Waste

Table 6 lists the hazardous materials and waste identified during facility walkdowns following deactivation.

Table 6. Building 3034 postdeactivation hazardous materials and waste

Identification	Description	Quantity
Lead-based paint	Used as wall covering throughout building.	Indeterminate
Asbestos lagging	Used as pipe lagging throughout the building	Indeterminate
PCBs	Electrical devices and transformers	Indeterminate

4. BUILDING 3034 DEACTIVATION ACTIVITIES

The following section addresses the major activities performed during the deactivation of Bldg. 3034. The objectives of the deactivation process were to place the facility in a passively safe and environmentally stable configuration that can be efficiently and cost effectively maintained for an indefinite period of time. The major deactivation issues with regard to Bldg. 3034 are listed in the following sections.

4.1 INTERNAL SPACES; ACCESS REQUIRED

4.1.1 General Areas

All unnecessary storage cabinets, desks, file cabinets and miscellaneous materials were removed from the building. Some were green-tagged for reuse. The remaining items were disposed of.

Lead based paint exists throughout the building as wall covering. The areas that were peeling and flaking have been repaired, and approximately three-fourths of the building has been repainted.

The remainder of the paint will remain as is. Paint condition is an inspection item in the S&M plan for Bldg. 3034.

4.2 INTERNAL SPACES; NO ACCESS REQUIRED

There are no internal spaces where no access is required in Bldg. 3034.

4.3 EXTERNAL SPACES

4.3.1 Building 3034 Structure

The exterior of Bldg. 3034 was inspected and found to be in generally good structural condition.

4.3.2 Building 3034 Roof

The roof of Bldg. 3034 was repaired/inspected and found to be in generally good structural condition.

4.4 OPERATIONAL SYSTEMS

4.4.1 Electrical Power System

All electrical services that were not essential to the basic surveillance and maintenance operations were disconnected at the main breaker box. The power distribution system for the isotopes area remains in service.

4.4.2 Fire Protection System

The fire protection is a dry pipe delivery system available for use if there is a fire in the building.

4.4.3 Process Drain System

The process floor drains remain in operation to direct any roof in leakage to the ORNL process waste system and prevent any uncontrolled contamination from leaving the building. No decontamination of the process drain system has been performed.

4.5 MOTHBALLED SYSTEMS

No "mothballed" systems are associated with Bldg. 3034.

4.6 ABANDONED SYSTEMS

4.6.1 Potable Water System

Potable water has been isolated from Bldg. 3034 by capping the incoming line.

4.6.2 Natural Gas System

Natural gas was vented and valved off.

4.6.3 Plant Air System

The plant air system has been depressurized and valved off.

5. TRANSITION ACTIVITIES

Building 3034 will be officially transferred from the Department of Energy Office of Facility Transition and Management (EM-60) Program to the EM-40 program by a Memorandum of Agreement (MOA). The building will be accepted "as is" by EM-40 at the time of transfer.

5.1 MEMORANDUM OF AGREEMENT

The MOA documents the requirements agreed upon between EM-40 and EM-60. The signed MOA indicates acceptance by EM-40 that the criteria outlined in the MOA have been completed satisfactorily, with the exception of post-transition punchlist items, and that the level of deactivation of the facility is acceptable for transition to the EM-40 program.

Post-transition punchlist items will be finished after deactivation is complete. The details of how the punchlist items will be completed and documented will be addressed in the MOA.

5.2 POST-TRANSITION ACTIVITIES

No post-transition punchlist items have been identified for Bldg. 3034. All deactivation activities have been completed before transfer to EM-40.

6. POSTDEACTIVATION S&M

The "Postdeactivation S&M Plan for Building 3034" covers S&M activities associated with the interior spaces, operational and mothballed systems, and external areas related to Bldg. 3034.

The specific objectives of the S&M program for Bldg. 3034 are as follows:

1. ensure adequate containment of contamination,
2. provide physical safety and security control,
3. maintain the facility in a manner that will minimize potential hazards to the public, and
4. provide a mechanism for the identification and compliance with applicable environmental, safety, and health requirements.

The "Postdeactivation S&M Plan for Building 3034" details the specific S&M items to be performed and estimates the annual cost of performance. The S&M cost estimates are based on previous operational costs associated with similar S&M activities at ORNL.

The S&M activities associated with Bldg. 3034 include the following types of activities:

- walkdowns and inspections for structural integrity, safety, radioactive contamination, and hazardous material conditions;
- general housekeeping of the interior and exterior of the building as needed; and
- maintenance activities required to maintain the security and safety envelop of the facility.

7. ABNORMAL ACTIVITIES/CONDITIONS

No abnormal activities/conditions have been identified for Bldg. 3034.

8. TURNOVER PACKAGE DOCUMENTATION

8.1 ADMINISTRATIVE TURNOVER PACKAGE

Administrative turnover consists of a collection of administrative documents. This includes procedures, agreements, and other documents not directly related to the physical facility. The level of detail depends on the conditions, requirements, and agreements specific to the facility.

Attachment 3, "Administrative Turnover Package Checklist" reflects the documents required for this facility with respect to administrative turnover. The following sections detail the contents of the applicable sections required for Bldg. 3034.

8.1.1 Final Deactivation Project Report

The Final Deactivation Project Report is a management summary of the facility deactivation completion, general status and conditions, demonstrating conformance with the U.S. Department of

Energy's specification of the overall end point. It identifies management actions needed that are not routine. Unresolved issues are also described.

8.1.2 Regulatory Compliance Documentation

Regulatory compliance documentation details the status/compliance of all regulatory commitments, for example, status of compliance with applicable regulations promulgated pursuant to statutes, such as Occupational Safety and Health Administration; Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act; and National Environmental Protection Act and the remediation process in the National Contingency Plan.

8.1.3 Interagency Agreements Documentation

Interagency Agreements identify the terms and milestones of agreements pending and entered into by the U.S. Department of Energy with Federal, state, and local agencies and the status of compliance. This includes settlement agreements, administrative or consent orders, and compliance plans to settle outstanding notices of violation.

8.1.4 Existing Permit Documentation

This documentation covers the status of existing permits, including National Pollutant Discharge Elimination System, air permits, RCRA, and others associated with the facility.

8.1.5 Corrective Action Documentation

Corrective action documentation lists the status of corrective actions completed and outstanding, from previous audits, inspections, and other similar activities (e.g., Tiger Team, Technical Safety Appraisal, Defense Nuclear Facility Safety Board, regulatory agencies, self assessments, business systems review), including identification of those items that need to reevaluated and reviewed with respect to the facility's surplus condition.

8.1.6 Deactivation Locks Log and Keys

This log, which list all deactivation lock and keys for facility access, isolation of electrical components, chaining of valves, and other situations where physical access is to be controlled, will be turned over to EM-40 at the time of transfer.

8.2 TECHNICAL TURNOVER PACKAGE

Technical turnover consists of a collection of technical documents that describe the facility, its equipment, and the conditions at the completion of all deactivation activities. The level of detail depends on the conditions, requirements, and agreements specific to the facility. Attachment 4, "Technical Turnover Package Checklist," reflects the documents required for this facility with respect to technical turnover. The following sections detail the contents of the applicable sections required for Bldg. 3034.

8.2.1 Updated Facility Drawings (Arrangement, Photoionization Detector, Loop)

The updated facility drawings consist of facility, room, and cell arrangement drawings to the extent they exist. However, except in unique circumstances, as-built drawings of the deactivated conditions within the facility are not provided. Also provided is the current status (including drawings) of the deactivation/safe shutdown (if applicable). The documentation addresses systems, such as the water, sewer, air, electric, gas, process (mechanical and chemical) and fire protection systems. Attachment 5, "Building 3034 Drawing List," contains a list of all current drawings as they pertain to Bldg. 3034.

Table 7. Building 3034 updated drawings

Number	Revision	Title
D-51926	A	Enclosure Buildings 3030 and 3034—Ventilation
D-51926		Piping, Heating, and Ventilation

8.2.2 "As Left" Photos of Spaces and Major Equipment

These photos include a description/photos of spaces for which access is not anticipated during S&M.

8.2.3 Hazardous Material Inventory and Survey

The hazardous material inventory and survey identifies the location of fixed hazardous materials, wastes, and contamination with characterization information.

8.2.4 Safeguards and Security Documentation

Inventory and Safeguards and Security documentation lays out the provisions for nuclear or other material remaining in the facility for which there is a requirement for accountability or protection from diversion.

8.2.5 Chemical Substance Inventory and Survey

The chemical substance inventory and survey is an inventory of chemical and hazardous substances remaining, if any, and characterization information.

8.2.6 Radioactive Materials Inventory and Survey

The radioactive materials inventory and survey is an inventory of radioactive and fissile material remaining as contamination with characterization information. This survey includes the final radiological/hazardous materials survey records, final configuration and surveillance and maintenance requirements, available drawings, specifications, procedures, manuals, and unplanned occurrences records applicable to the facility. Attachment 6, "Building 3034 Radiological Survey Data," contains the pertinent radiological data.

8.2.7 Facility Soil, Surface Water, and Groundwater Condition Report

For soil, surface water, and groundwater conditions at the facility, this report provides all available data and reports that describe those conditions and the nature and extent of contamination therein. It also identifies any known assessment requirements.

8.3 S&M TURNOVER PACKAGE

S&M turnover consists of a collection of documents required to support postdeactivation S&M activities. The level of detail depends on the S&M specific to the facility. Attachment 7, "S&M Turnover Package Checklist" reflects the documents required for this facility with respect to S&M turnover. The following sections detail the contents of the applicable sections required for Bldg. 3034.

8.3.1 Postdeactivation S&M Plan

This document describes the S&M plan for the facility after deactivation is complete, up to the initiation of decommissioning. The S&M activities will be integrated into the decommissioning work and phased out as decommissioning is completed.

8.3.2 Postdeactivation S&M Updated Safety Equipment List

This document describes the safety equipment that will remain in the facility during the postdeactivation S&M period.

8.3.3 Postdeactivation S&M Procedures

There are no postdeactivation S&M procedures for Bldg. 3034.

9. ASSOCIATED LITERATURE

Document Number	Document Title
Draft	Facility Deactivation End Points Handbook; Volume 1: Method and Examples.
Draft	Facility Deactivation End Points Handbook; Volume 2: Deactivation Practices.
DOE/EM-0246	Decommissioning Resource Manual. August 1995
ORNL/ER-249/R2	Martin Marietta Environmental Restoration Program; Work Plan for the Isotopes Facilities Deactivation Project at Oak Ridge National Laboratory, August 1995
	Oak Ridge National Laboratory; Local Emergency Manual, Isotope Area, Revision 94-1, January 1994

10. ATTACHMENTS

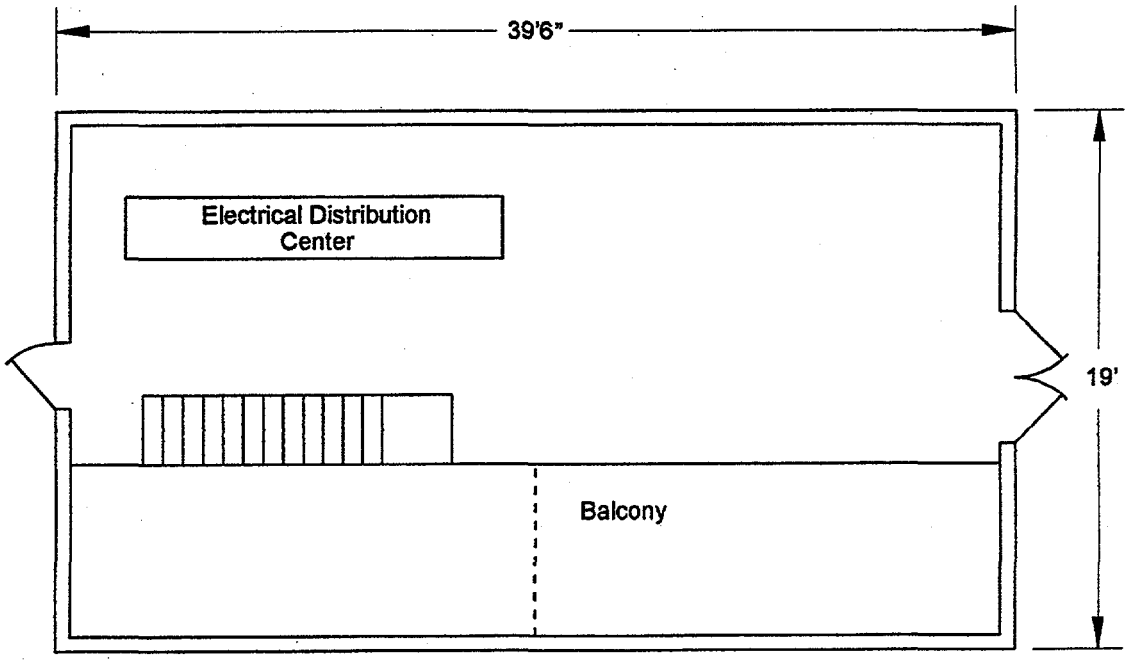
1. Building 3034 Floor Plan
2. Building 3034 Postdeactivation Facility Photographs
3. Administrative Turnover Package Checklist
4. Technical Turnover Package Checklist
5. Building 3034 Drawing List
6. Building 3034 Radiological Survey Data
7. S&M Turnover Package Checklist

ATTACHMENT 1
BUILDING 3034 FLOOR PLAN

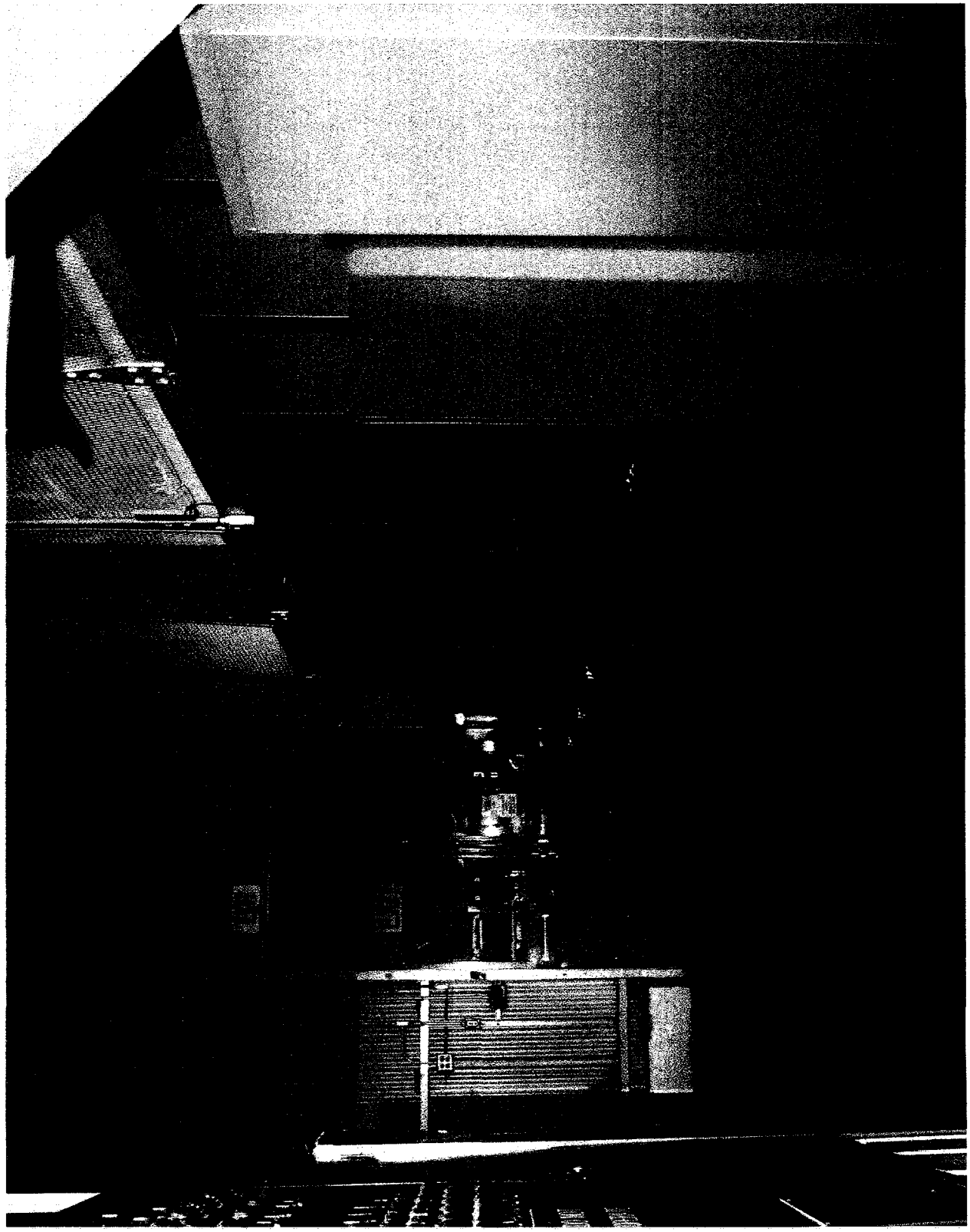
ATTACHMENT 1
BUILDING 3034
FLOOR PLAN

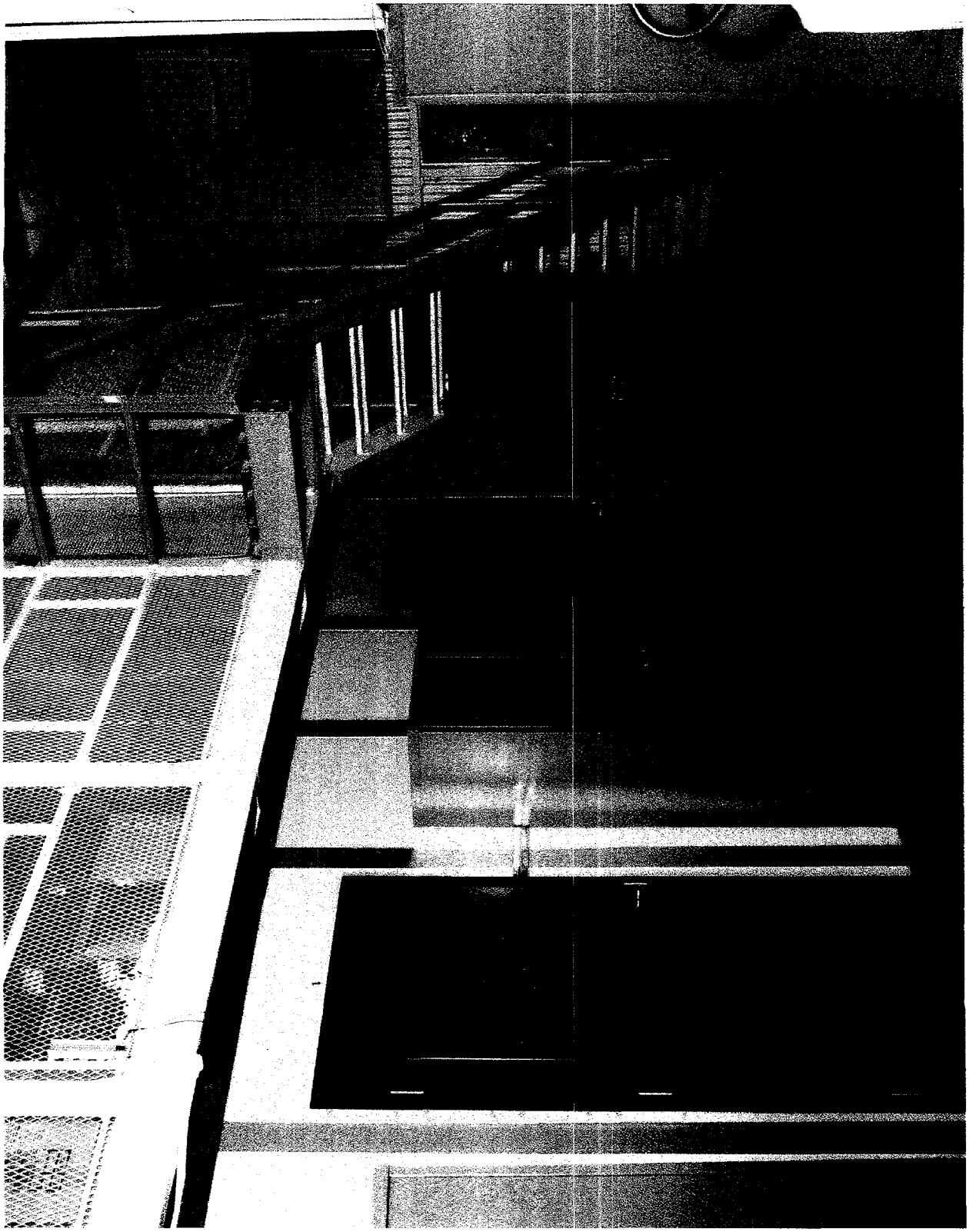
ORNL DWG 97C-255

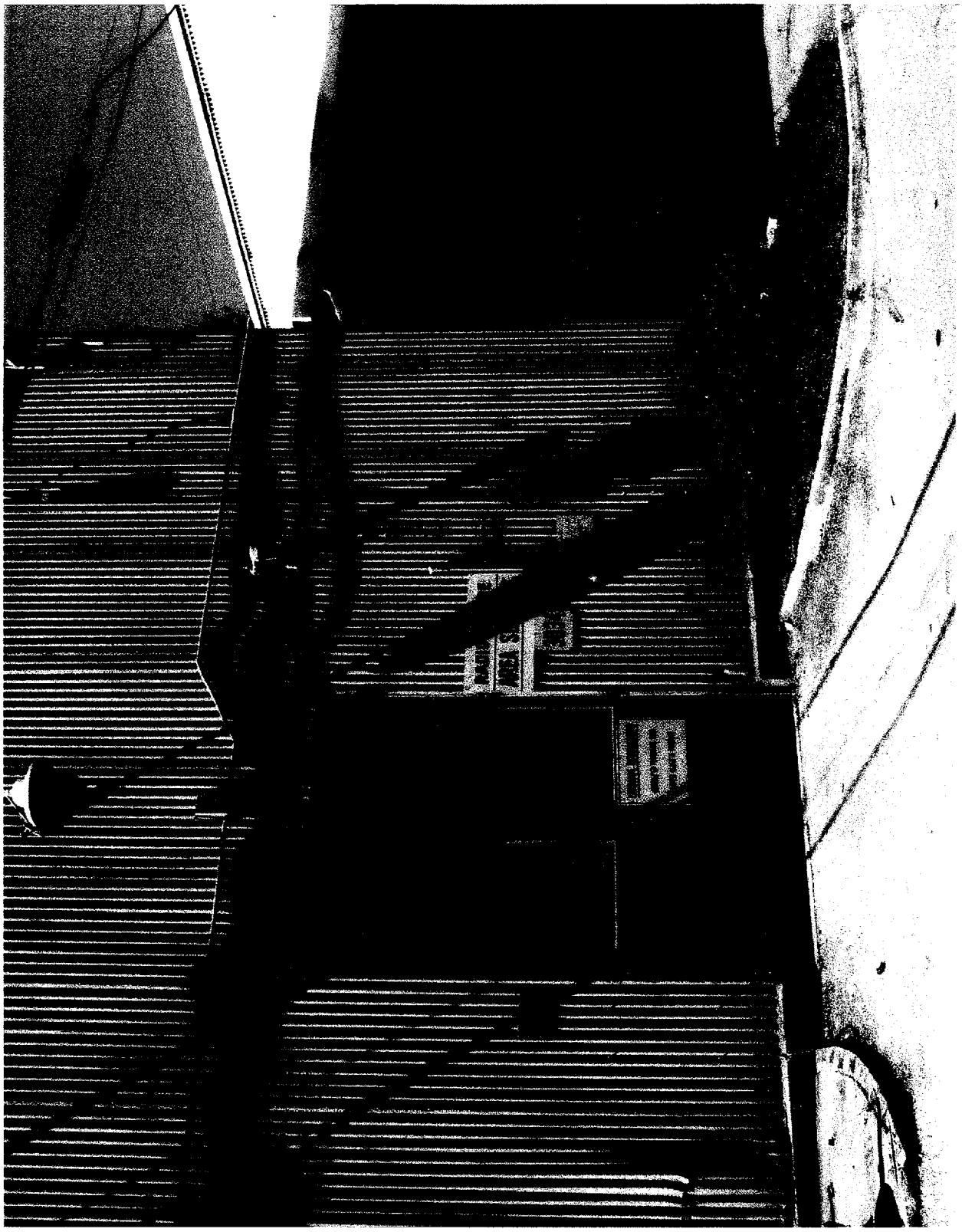
Building 3034



ATTACHMENT 2
BUILDING 3034
POSTDEACTIVATION FACILITY PHOTOGRAPHS







ATTACHMENT 3
ADMINISTRATIVE TURNOVER PACKAGE CHECKLIST

Administrative Turnover Package Checklist

Item number	Document	Applicable ?
1	Final Deactivation Project Report	Yes
2	Emergency Response Plan	No
3	Safety Documentation (Category III or greater)	No
4	Regulatory Compliance Documentation	No
5	Interagency Agreements Documentation	No
6	Existing Permit Documentation	No
7	Corrective Action Documentation	No
8	Postdeactivation Punchlist	No
9	Deactivation Locks and Keys	Yes

ATTACHMENT 4
TECHNICAL TURNOVER
PACKAGE CHECKLIST

Technical Turnover Package Checklist

Item number	Document	Applicable ?
1	End Point Determination Report	No
2	End Points Completion Report	No
3	End Point Technical Information	No
4	Deactivation Work Plans	No
5	Updated Facility Drawings (arrangement, PID, Loop, etc.)	Yes
6	"As Left" Photos of Spaces and Major Equipment	Yes
7	Hazardous Material Inventory and Survey	No
8	Safeguards and Security Documentation	No
9	Chemical Substance Inventory and Survey	No
10	Radioactive Materials Inventory and Survey	No
11	Facility Soil, Surface Water, and Groundwater Condition Report	Yes

ATTACHMENT 5
BUILDING 3034
DRAWING LIST

Building 3034 Drawing List

Document number	Revision	Title
244139		Multumite switchboard - drawout type - front & side elevation
244158		Multumite switchboard - drawout type - rear & section views
244168		Multumite switchboard - drawout type - wiring diagram
287318		Multumite switchgear - drawout type
60205		Model "U-34" pump - rotary seal
A20375EB-001-A		Roof maint plan Bldg. 3033, 3034
D-18722		Location plan & excavation dets
D-25461		Allowable floor load signs
D-25462		Framing dets
D-50698		New substation & underground duct
D-56859		Transformer concrete foundation & pit
D-56861		Plot plan sht 1
D-56863		Plot plan sht 2
D-56864		Retaining wall & planter plan sht 1
D-6630		Equip location plan
D-6649		Foundation plan & dets
E20378D-002-D		Elec conn. diag
E20378ED-900-E		Inter bldg conn diag
E20378ED-901-E		Schem diag
E20378ED-902-E		Cont PNL MB FA dev int wird
N3E-020384-A014		Isotope Facilities Deactivation Project energy isolation survey details Bldg 3034
N3E-020384-SK02		Isotope Facilities Deactivation Project energy isolation survey details Bldg 3034

ATTACHMENT 6
BUILDING 3034
RADIOLOGICAL SURVEY DATA

ORNL Radiological Survey Data

Survey Number: 3038-95-0931 **3038 Field Office** **Date:** 7/12/95 **Time:** 11:45

Surveyor Badge Number: 34657 ☐ Routine Survey **RWP Number:** 105394

Building: 3034 **Specific Location:** second level floor, walls, ceiling.

Description:

provided health physics coverage during decontamination effort.

Instruments Used and Calibration Due Date:

CTA-041	2/20/96	CTB-047	2/20/96	3038-9P	10/18/95	3038-8P	10/16/95

General Description of Radiological Conditions:

Please see ORNL RADIOLOGICAL SURVEY # 3038-95-0917 for information on area prior to start of job. All personnel were frisk at the end of the job. All personnel were found to be free and clear of any and all radioactive contamination. The outside of All tools were checked at the end of the job, no transferable contamination was found. The hand held scabbler gun was found to have non-transferable contamination. It was contaminated with 10,000 dpm beta-gamma. A survey of the area was performed at the completion of the job. The results of the survey are as follows: Inside the contamination area at the north end of the building non-transferable contamination levels ranged from 1,000 dpm beta-gamma up to 25,000 dpm beta-gamma. There was no transferable contamination found in this area. Inside the contamination area to the south end of the building was found to be free and clear of any and all radioactive contamination, transferable as well as non-transferable. All of the other various spots that were found on the floor on the second level of building 3034 were all <20 dpm/100 cm^2 alpha and <200 dpm/100 cm^2 beta-gamma. Only on of these spots towards the south end of the building was still contaminated after the decontamination effort (please see map for the exact location of this spot) The levels of the fixed contmination were 2,500 dpm beta-gamma. Two air samples were taken during this job. One air sample was taken in the work area (sample #158) and one sample was was taken at the HEPA vac exhaust (sample #159). both air sample were counted six times over a period of 47 hours. Both air samples were found to be free and clear of any airborne radioactivity, Please see Air Sample Data Sheet(s) for both air samples.

Division or Group Needing the Survey: P&E **Person-hours spent on the survey:** 6

# of Pages: 6 **Completed By:** C M Young 34657 **Reviewed by:** [signature] **Date:** 8-6-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1-54	<20	<200	see map and smear sample data sheet for locations								

RADIATION WORK PERMIT (RWP)

FROM: DATE 7-12-95 TIME 0700 | TO: DATE 7-12-95 TIME 1500 | EXTENDED BY: DATE / TIME | TO: | WORK PERMIT NO. 105394

Building: 3034 | Room, Cell or Area: Mezzanine | Equipment or Process Being Worked On: Area Surfaces

Operation Being Performed: Decontamination of Surfaces

RADIATION SURVEY DATA (To be filled in by Health Physicist)

LOC. CODE	LOCATION	RADIATION TYPE	RADIATION mrem/hr.	CONTAMINATION PROBE	CONTAMINATION SMEAR	CONTAMINATION AIR	SURVEY BY	SURVEY DATE & TIME
A	SECOND LEVEL OF 3034 WEST WALL (ALL)	B/γ		25,000 dpm	<1000 dpm <300 cpm	NO AIRBORNE	DC	6-23-95 0615
B	SECOND LEVEL OF 3034 FLOOR	B/γ		80,000 dpm	~250 dpm	ACTIVITY WAS	CG	7-10-95 1730
C	SECOND LEVEL OF 3034 EAST CAGE WALL	B/γ		~~40,000 dpm~~ 37,000 dpm ~~40,000 dpm~~	<1000 dpm	DETECTED.	TD	5-16-95 1500
D	SECOND LEVEL OF 3034 CEILING, PIPES, ETC	B/γ		~~47,000 dpm~~ 1370 dpm	637 dpm 139 dpm	AIR SAMPLES #158 & 159	DC	6-15-95 0615

INSTRUCTIONS*

RADIATION PROTECTION MONITORING REQUIRED: ☐ START OF JOB ☑ INTERMITTENT ☐ CONTINUOUS ☐ END OF JOB

CONTACT RP FOR SURVEY BEFORE STARTING WORK IN A NEW LOCATION		PROVIDE ASSISTANCE FOR REMOVAL OF PROTECTIVE CLOTHING	
TAPE COVERALLS TO GLOVES AND FOOTWEAR		DO NOT WORK ALONE – STANDBY OBSERVER REQUIRED	
CHECK TOOLS AT END OF JOB	✓	AIR SAMPLING IN WORK AREA	✓
CHECK PERSONNEL AT END OF JOB	✓	TIMEKEEPING REQUIRED	
PRE - JOB ALARA BRIEFING REQUIRED		POST - JOB DEBRIEFING REQUIRED	

REMARKS: * INFORMATION FOR LOCATIONS A,B,C,D ARE THE HIGHEST LEVELS FOR THAT LOCATION

PROTECTIVE EQUIPMENT				MONITORING	
CAP		SHOE COVERS (___ PR.)		SPECIAL METERING	
HOOD		PLASTIC BOOTIES (1 PR.)	✓	DIRECT READING POCKET METER	
LAB COAT		RUBBERS/BOOTS		EXTREMITY MONITOR	
COVERALLS (___ PR.)		PLASTIC GLOVES (___ PR.)		DOSE RATE ALARM	
PLASTIC SUIT		SURGEON'S GLOVES (___ PR.)		CUTIE PIE ID ___	
HALF MASK **	✓	RUBBERIZED CANVAS GLOVES (___ PR.)		SURVEY METER ID 3038-08P	✓
FULL FACE MASK **		HOUSEHOLD RUBBER GLOVES (2 PR.)	✓	ALPHA METER ID 3038-09A	✓
AIR - LINE HOOD **		Tyvek	✓	AIR SAMPLER ID LVS0946	✓
AIR - LINE SUIT **		Bunny Suit	✓	LVS0953	✓

REGULAR APPROVALS	Radiation Protection Certification: 34657	Supervision:	Supervision	
SPECIAL APPROVALS	Division Director	EHP Director	Lab. Associate Director	

* Only items checked apply. ** Certification by Industrial Hygiene necessary for those required to wear respiratory protection

PERSONNEL EXPOSURE RECORD

PERSONNEL NAME	JOB *** CLASS.	DEPT.	P.R. NO.	LOC. CODE	Estimated Work Time	Planned Exposure (mrem)	TIME/DOSE RECORD BEGIN	END	BEGIN	END	BEGIN	END	Total Time	Estimate Dose (mrem)
Ken Chaney	Tech	CTD	614 770	A-D	2hrs	0	0725	0850	920	1000				0
							1.0	1.0	1.0	1.0				
JE Parfitt	Tech	3370	35796	A-D	2hrs	0	213	0850	920	1000				0
							30	30	30	30				

Reviewed 7-24-95

*** Job Classification such as Welder, Electrician, Chemical Operator, Health Physicist, etc., should be recorded in this column.

TIMEKEEPER Name: 34657 Department: 3175 H.P.

UCN-2779 (3 3-91)

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994-550-162/80282

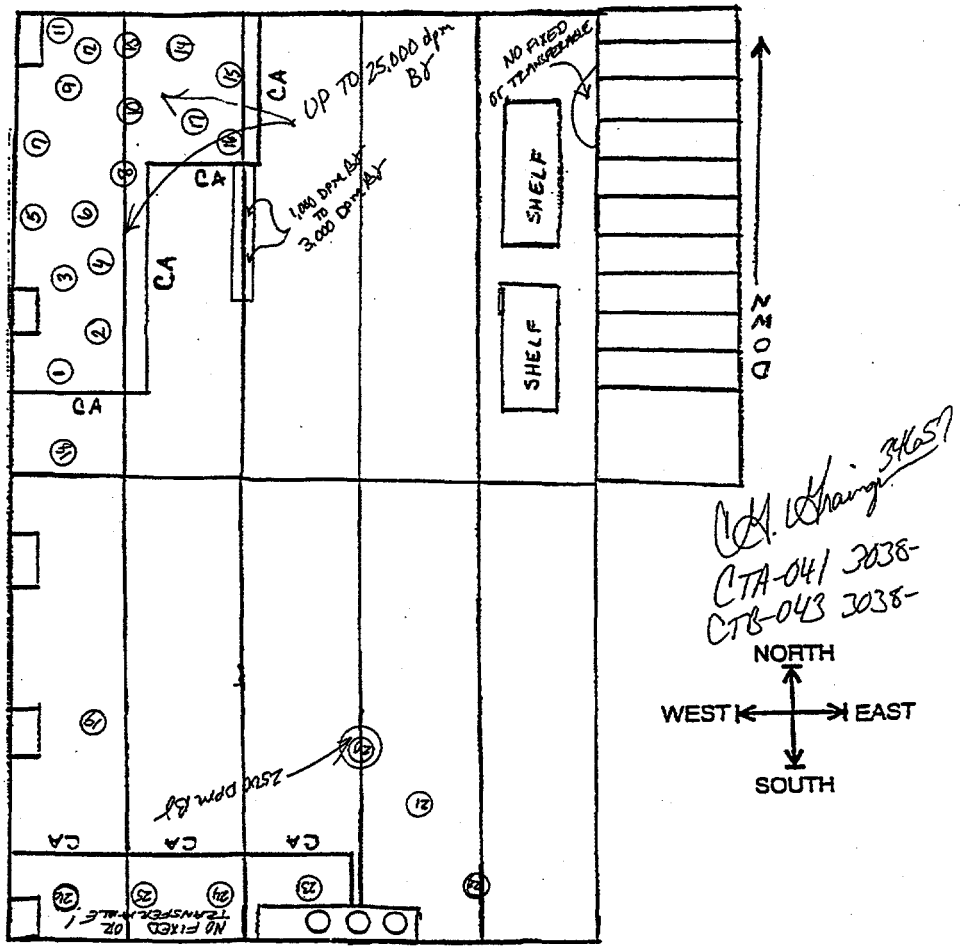
Give easy DAM on smears over:
_____ dpm/100 cm² a
_____ dpm/100 cm² b

ORNL Radiological Survey Data

Survey Number: _____ 3038 Field Office Date: 7/13/95 Time: 1300

A	B
1 SEE	
2 SMEAR	
3 SAMPLE	
4 DATA	
5 SHEET	

BUILDING 3034, SECOND LEVEL
FLOOR OF SECOND LEVEL



C.H. Haines 3457
CTA-041 3038-
CTB-043 3038-

#	- Smear Location	Boundary Designations	
#—#	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations:. B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: ____

SMEAR SAMPLE DATA

NAME (HP&S)	PHONE	BLDG. NO. (HP&S)	LOCATION (SMEARS TAKEN)	DATE
T.G. GRAINGER	46704	3034	SECOND LEVEL-VARIOUS	7/12/95

SMEARS NUMBERED:	RESULTS REQUIRED:	DATE COUNTED	COUNTER OPERATOR
from 1 To	Date Time	7/12/95 & 7/13/95	C.M. Young 34657

ACTIVE D/M ONLY ON SMEARS OVER:	REMARKS:
20 d/m α	INSTRUMENT: CTA-041
200 d/m β	CTB-047

* SMEARS ARE FROM AREAS THAT WERE DECONTAMINATED THIS DATE. THIS IS A FOLLOW UP SURVEY.

α	β	LOCATION (*)		α	β	LOCATION (*)		α	β	LOCATION (*)
<20	<200	INSIDE "C" AREA CLOSE TO NORTH END	34	<20	<200	AIR SAMP. 953	67			
<20	<200	"	35	<20	<200	AIR SAMP. 953	68			
<20	<200	"	36	<20	<200	ELEC CORD W/953	69			
<20	<200	"	37	<20	<200	SCAB. GUN	70			
<20	<200	"	38	<20	<200	SCAB. GUN	71			
<20	<200	"	39	<20	<200	SCAB. GUN	72			
<20	<200	"	40	<20	<200	SCABBLER	73			
<20	<200	"	41	<20	<200	SCABBLER	74			
<20	<200	"	42	<20	<200	SCABBLER	75			
<20	<200	"	43	<20	<200	SCABBLER	76			
<20	<200	"	44	<20	<200	AIR HOSE	77			
<20	<200	"	45	<20	<200	AIR HOSE	78			
<20	<200	"	46	<20	<200	AIR HOSE	79			
<20	<200	"	47	<20	<200	AIR HOSE	80			
<20	<200	"	48	<20	<200	VAC. HOSE	81			
<20	<200	"	49	<20	<200	VAC. HOSE	82			
<20	<200	"	50	<20	<200	VAC. HOSE	83			
<20	<200	VARIOUS SPOTS	51	<20	<200	VAC. HOSE	84			
<20	<200	"	52	<20	<200	Sm. Drum TOP	85			
<20	<200	"	53	<20	<200	Sm. Drum Sides	86			
<20	<200	"	54	<20	<200	Sm. Drum Sides	87			
<20	<200	"	55				88			
<20	<200	INSIDE "C" AREA CLOSE TO SOUTH END	56				89			
<20	<200	"	57				90			
<20	<200	"	58				91			
<20	<200	"	59				92			
<20	<200	HEPA VAC 1	60				93			
<20	<200	HEPA VAC 2	61				94			
<20	<200	HEPA VAC 3	62				95			
<20	<200	HEPA VAC 4	63				96			
<20	<200	AIR SAMP -946	64				97			
<20	<200	AIR SAMP -946	65				98			
<20	<200	CORD W/946	66				99			

CN-1632 (*) Give only if required.

Air Sample Data Sheet

HP Badge No.: 34657 RWP No.: 105394 Air Sample No. 159

Location: BUILDING 3034, SECOND LEVEL CAGE.(TAKEN AT THE HEPA VAC. EXHAUST)

Operation: DECOMTAMINATION OF THE WALLS, FLOOR AND CEILING.

Flow Rate (cfm): 3.50 Pump ID: LVS0953

	Date	Time
Air Sample Start:	07/12/95	0700
Air Sample Stop:	07/12/95	1000

Filter Efficiency (%): 100.0

Count Results

Count Time		Decay Time			Activity (d/m)		Concentration (uCi/cc)	
Date	Time	Days	Hours	Minutes	Alpha	Beta-Gamma	Alpha	Beta-Gamma
07/12/95	1030	0	0	30	3369	11683	8.508 E-11	2.950 E-10
07/12/95	1200	0	2	0	473	1323	1.195 E-11	3.341 E-11
07/12/95	1445	0	4	45	127	441	3.207 E-12	1.114 E-11
07/13/95	0900	0	23	0	36	196	9.091 E-13	4.950 E-12
07/13/95	1500	1	5	0	43	63	1.086 E-12	1.591 E-12
07/14/95	0900	1	23	0	0	0	N/A	N/A

Air Sample Data Sheet

HP Badge No.: 34657 RWP No.: 105394 Air Sample No. 158

Location: BUILDING 3034, SECOND LEVEL CAGE. (SAMPLE TAKEN IN THE WORK AREA)

Operation: DECONTAMINATION OF WALLS, FLOOR AND CEILING.

Flow Rate (cfm): 3.50 Pump ID: LVS0946

	Date	Time
Air Sample Start:	07/12/95	0700
Air Sample Stop:	07/12/95	1000

Filter Efficiency (%): 100.0

Count Results

Count Time		Decay Time			Activity (d/m)		Concentration (uCi/cc)	
Date	Time	Days	Hours	Minutes	Alpha	Beta-Gamma	Alpha	Beta-Gamma
07/12/95	1030	0	0	30	2815	9184	7.109 E-11	2.319 E-10
07/12/95	1200	0	2	0	372	1141	9.394 E-12	2.881 E-11
07/12/95	1445	0	4	45	89	525	2.248 E-12	1.326 E-11
07/13/95	0900	0	23	0	34	161	8.586 E-13	4.066 E-12
07/13/95	1500	1	5	0	34	21	8.586 E-13	5.303 E-13
07/14/95	0900	1	23	0	0	0	N/A	N/A

ORNL Radiological Survey Data

Survey Number: 3038-95-0788 **3038 Field Office** **Date:** 6/9/95 **Time:** 06:35

Surveyor Badge Number: 626079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** Upstairs on north wall.

Description:
Comprehensive survey.

Instruments Used and Calibration Due Date:

CTB-047	2/20/96	CTA-041	2/20/96	3038-2B	10/23/95	3038-9P	10/18/95

General Description of Radiological Conditions:
All smears were <20 dpm/100 cm sq alpha and <200 dpm/100 cm sq beta-gamma. The only hot spot was a dirt dobber nest attached to the wall it probed 6,000 dpm beta-gamma and <300 dpm/100 cm sq alpha.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 3.5

# of Pages: 2 **Completed By:** Deborah Crossno **Reviewed by:** [signature] **Date:** 6-13-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map	17	<20	<200	See map	18	<20	<200	See map
19	<20	<200	See map	20	<20	<200	See map	21	<20	<200	See map
22	<20	<200	See map	23	<20	<200	See map	24	<20	<200	See map
25	<20	<200	See map	26	<20	<200	See map	27	<20	<200	See map
28	<20	<200	See map	29	<20	<200	See map	30	<20	<200	See map
31	<20	<200	See map	32	<20	<200	See map				

626079

ORNL Radiological Survey Data

6-9-95 0635

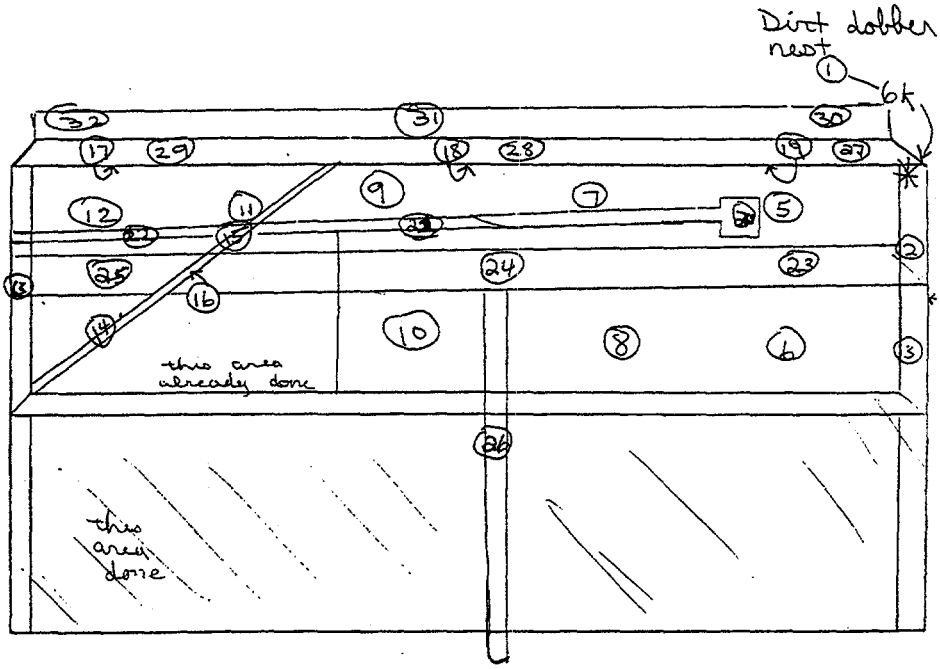
Survey Number: 3038-95-0788 3038 Field Office Date: 6-8-95 Time: 0615

CTA-041 LTB-047 3038-2B+9P

Give only DAM on smears over
20 dpm/100 cm² α
200 dpm/100 cm² β

	α	β
1	< 20	< 200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32	< 20	< 200
33		

North Wall



FLOOR

all areas except the 6k spot probed < 1000 dpm/100 cm² Bγ. < 300 dpm/100 cm² α

# - Smear Location	Boundary Designations	
#—# - Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
# - Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
# - 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
# - General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP - Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS - Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0918 **3038 Field Office** **Date:** 7/10/95 **Time:** 18:03

Surveyor Badge Number: 34657 ☐ Routine Survey **RWP Number:** none

Building: 3034 ***Specific Location:*** *south end of west wall*

Description:

Preformed a contamination survey. This included a direct frisk of the area as well as a smear survey. This Survey was completed by; C.G. Grainger, S.K. Burnette and G. Be nnette. THIS SURVEY WAS COMPLETED OVER A PERIOD OF SEVERAL DAYS AND MANY PORTABLE INSTRUMENTS WERE USED.

Instruments Used and Calibration Due Date:

CTA-041 2/20/96 CTB-047 2/20/96

General Description of Radiological Conditions:

Seventy defensap smears were taken on this section of wall. All smear results were <20 dpm/100 cm^2 alpha and *<200 dpm/100 cm^2 beta-gamma. Direct readings on this section of wall ranged from 1,000 dpm beta-gamma to* 10,000 dpm beta-gamma.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 10

# of Pages: 3 **Completed By:** C Grainger 3465 **Reviewed by:** Slate **Date:** 7-11-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	see map for location.	2	<20	<200	see map for location.	3	<20	<200	see map for location.
4	<20	<200	see map for location.	5	<20	<200	see map for location.	6	<20	<200	see map for location.
7	<20	<200	see map for location	8	<20	<200	see map for location	9	<20	<200	see map for location
10	<20	<200	see map for location	11	<20	<200	see map for location	12	<20	<200	see map for location
13	<20	<200	see map for location	14	<20	<200	see map for location	15	<20	<200	see map location
16	<20	<200	see map location	17	<20	<200	see map location	18	<20	<200	see map location
19	<20	<200	see map location	20	<20	<200	see map location	21	<20	<200	see map location
22	<20	<200	see map location	23	<20	<200	see map location	24	<20	<200	see map location
25	<20	<200	see map location	26	<20	<200	see map location	27	<20	<200	see map location
28	<20	<200	see map location	29	<20	<200	see map location	30	<20	<200	see map location
31	<20	<200	see map location	32	<20	<200	see map location	33	<20	<200	see map location
34	<20	<200	see map location	35	<20	<200	see map location	36	<20	<200	see map location
37	<20	<200	see map location	38	<20	<200	see map location	39	<20	<200	see map location
40	<20	<200	see map location	41	<20	<200	see map location	42	<20	<200	see map location
43	<20	<200	see map location	44	<20	<200	see map location	45	<20	<200	see map location
46	<20	<200	see map location	47	<20	<200	see map location	48	<20	<200	see map location
49	<20	<200	see map location	50	<20	<200	see map location	51	<20	<200	see map location
52	<20	<200	see map location	53	<20	<200	see map location	54	<20	<200	see map location
55	<20	<200	see map location	56	<20	<200	see map location	57	<20	<200	see map location
58	<20	<200	see map location	59	<20	<200	see map location	60	<20	<200	see map location
61	<20	<200	see map location	62	<20	<200	see map location	63	<20	<200	see map location
64	<20	<200	see map location	65	<20	<200	see map location	66	<20	<200	see map location
67	<20	<200	see map location	68	<20	<200	see map location	69	<20	<200	see map location
70	<20	<200	see map location								

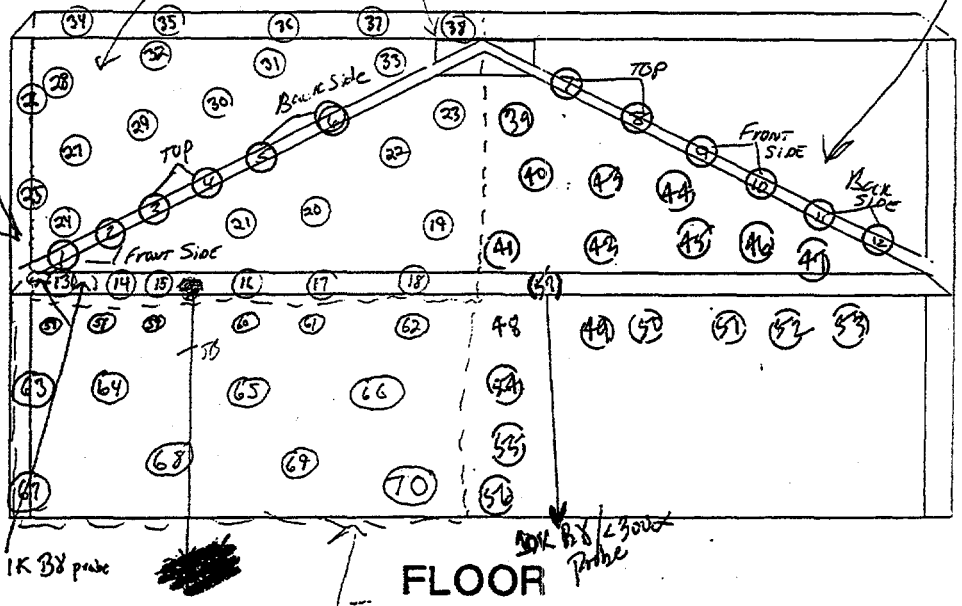
Survey Number: 308-95-0918 3038 Field Office Date: 7/10/95 Time: 1730

(PLEASE SEE SMEAR SAMPLE DATA SHEET)

Cross Bars have been probed and Smeared

probed & smeared ---- SB

3034 SOUTH END OF WEST WALL



INSTRUMENTS:

CTA-044, CTB-047 / 34657 / 140165 / 140968

(1) - Smear Location	Boundary Designations	
(1)—(2) - Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
2 - Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
3 - 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
4 - General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP - Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS - Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

SMEAR SAMPLE DATA

NAME (HP&S)	PHONE	BLDG. NO. (HP&S)	LOCATION (SMEARS TAKEN)	DATE
STRINGER/BURNETTE/BENNETT	4-6704	3038	SOUTH END OF EAST WALL	7/10/95
SMEARS NUMBERED: From 1 To 70	RESULTS REQUIRED: Date Time		DATE COUNTED: VARIOUS	COUNTER/OPERATOR: [illegible]
GIVE D/M ONLY ON SMEARS OVER: 20 d/m α; 200 d/m β	REMARKS: CTA-041 CTB-041		SURVEY # 3038-95-918	

α	β	LOCATION (*)	α	β	LOCATION (*)	α	β	LOCATION (*)
1 <20	<200	SEE MAP	34 <20	<200	SEE MAP	67 <20	<200	SEE MAP
2 <20	<200	SEE MAP	35 <20	<200	SEE MAP	68 <20	<200	SEE MAP
3 <20	<200	SEE MAP	36 <20	<200	SEE MAP	69 <20	<200	SEE MAP
4 <20	<200	SEE MAP	37 <20	<200	SEE MAP	70 <20	<200	SEE MAP
5 <20	<200	SEE MAP	38 <20	<200	SEE MAP	71		
6 <20	<200	SEE MAP	39 <20	<200	SEE MAP	72		
7 <20	<200	SEE MAP	40 <20	<200	SEE MAP	73		
8 <20	<200	SEE MAP	41 <20	<200	SEE MAP	74		
9 <20	<200	SEE MAP	42 <20	<200	SEE MAP	75		
10 <20	<200	SEE MAP	43 <20	<200	SEE MAP	76		
11 <20	<200	SEE MAP	44 <20	<200	SEE MAP	77		
12 <20	<200	SEE MAP	45 <20	<200	SEE MAP	78		
13 <20	<200	SEE MAP	46 <20	<200	SEE MAP	79		
14 <20	<200	SEE MAP	47 <20	<200	SEE MAP	80		
15 <20	<200	SEE MAP	48 <20	<200	SEE MAP	81		
16 <20	<200	SEE MAP	49 <20	<200	SEE MAP	82		
17 <20	<200	SEE MAP	50 <20	<200	SEE MAP	83		N
18 <20	<200	SEE MAP	51 <20	<200	SEE MAP	84		
19 <20	<200	SEE MAP	52 <20	<200	SEE MAP	85		A
20 <20	<200	SEE MAP	53 <20	<200	SEE MAP	86		
21 <20	<200	SEE MAP	54 <20	<200	SEE MAP	87		
22 <20	<200	SEE MAP	55 <20	<200	SEE MAP	88		
23 <20	<200	SEE MAP	56 <20	<200	SEE MAP	89		
24 <20	<200	SEE MAP	57 <20	<200	SEE MAP	90		
25 <20	<200	SEE MAP	58 <20	<200	SEE MAP	91		
26 <20	<200	SEE MAP	59 <20	<200	SEE MAP	92		
27 <20	<200	SEE MAP	60 <20	<200	SEE MAP	93		
28 <20	<200	SEE MAP	61 <20	<200	SEE MAP	94		
29 <20	<200	SEE MAP	62 <20	<200	SEE MAP	95		
30 <20	<200	SEE MAP	63 <20	<200	SEE MAP	96		
31 <20	<200	SEE MAP	64 <20	<200	SEE MAP	97		
32 <20	<200	SEE MAP	65 <20	<200	SEE MAP	98		
33 <20	<200	SEE MAP	66 <20	<200	SEE MAP	99		

UCN-1632 3 7-67) (*) Give only if required.

page #3

ORNL Radiological Survey Data

Survey Number: 3038-95-0727 **3038 Field Office** **Date:** 5/16/95 **Time:** 16:00

Surveyor Badge Number: 740918 ☐ Routine Survey **RWP Number:**

Building: 3034 **Specific Location:** UPSTAIRS, SOUTH WALL

Description:

Contamination survey only. Survey on wall, I beams and pipes. Starting from pipe on right side, to beam at left side. See map.

Instruments Used and Calibration Due Date:

CTA-041	2/20/96	CTB-047	2/20/96

General Description of Radiological Conditions:

All smears were <20 dpm/100cm2 alpha and <200 dpm/100 cm2 beta-gamma. This survey completes the whole 3034 South Wall up to beam in overhead.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 3

# of Pages: 2 **Completed By:** Wayne Gibson **Reviewed by:** [signature] **Date:** 5/23/95

Give only DPM as shown over 20 sparks cm² α, 20" sparks cm² β

Survey Number: 3038-95-0727 3038 Field Office Date: 5/16/95 Time: 1600

	α	β
1	< 20	< 200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
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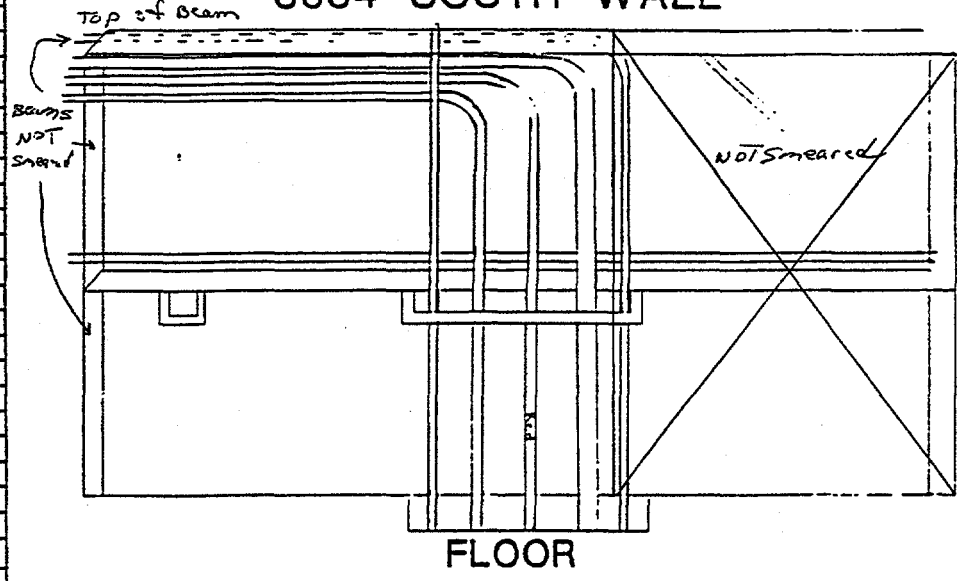
Smeared wall, pipes, + I beams

2nd floor

3034 SOUTH WALL



CTA - 047
CTB - 041

(W36)

Wayne Allison 740518

(S) - Smear Location	Boundary Designations	
(S)—(S) - Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
γ - Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
γ - 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
γ - General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
(ESP) - Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS - Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page ___

ORNL Radiological Survey Data

Survey Number: 3038-95-0719 **3038 Field Office** **Date:** 5/15/95 **Time:** 18:40

Surveyor Badge Number: 740918 ☐ Routine Survey **RWP Number:**

Building: 3034 **Specific Location:** SOUTH WALL, 2nd floor EAST SIDE

Description:

sURVEY FOR CLEARANCE

Instruments Used and Calibration Due Date:

CTA-041	2/20/96	CTB-047	2/20/96	3038-48	9/11/95	3038-11P	9/25/95

General Description of Radiological Conditions:

All of wall surveyed <300 dpm/probe alpha, and <1000 dpm/probe beta-gamma EXCEPT crossbeam in middle of upper right side of wall, which was 2k-5k dpm/probe beta-gamma and 2600 dpm/probe alpha. All smears were <20 dpm/.100cm2 alpha and <200 dpm/100cm2 beta-gamma. SEE MAP

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 4.5

# of Pages: 2 **Completed By:** Wayne Kilborn **Reviewed by:** Slate **Date:** 5-16-95

ORNL Radiological Survey Data

Survey Number: _____ 3038 Field Office Date: 5/15/95 Time: 1840

Cpm only DAC on smears over
α 20 dpm/100 cm² α
β 200 dpm/100 cm² β

	α	β
1	< 20	< 200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
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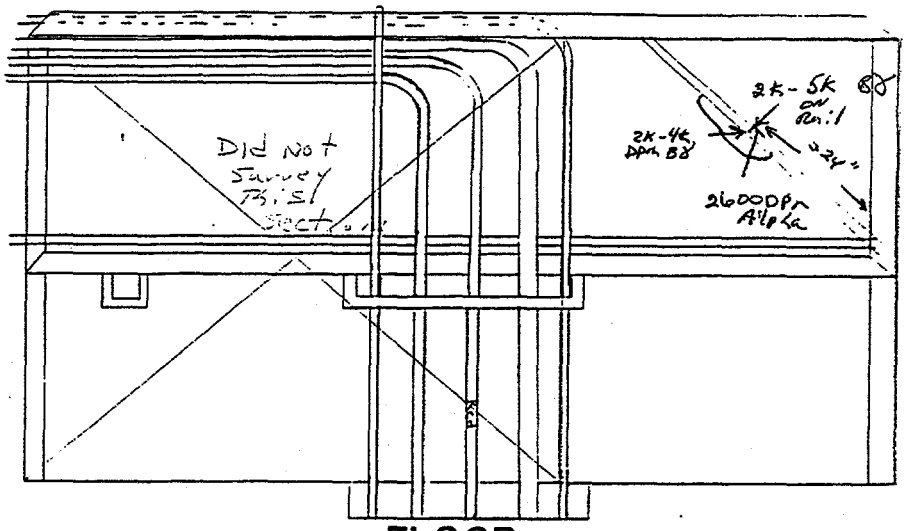
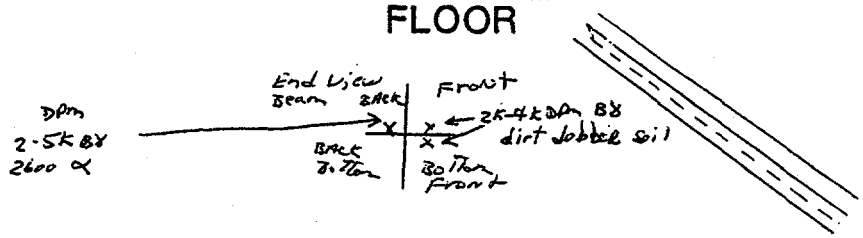
2nd floor

3034 SOUTH WALL



FLOOR



ⓐ	- Smear Location	Boundary Designations	
ⓐ—ⓐ	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
E	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
9	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
9	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0865 **3038 Field Office** **Date:** 6/23/95 **Time:** 06:15

Surveyor Badge Number: 626079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** *Upstairs in cage area*

Description:

Comprehensive survey.

Instruments Used and Calibration Due Date:

CTB-047	2/20/96	CTA-041	2/20/96	3038-4P	8/19/95	3038-1B	11/17/95

General Description of Radiological Conditions:

All smears were <20 dpm/100 cm sq alpha and <200 dpm/100 cm sq beta-gamma.The only spot that probed above 1000 dpm/100 cm sq beta-gamma was up to 25,000 dpm/100 cm sq and was <300 dpm/100 cm sq alpha.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 1

# of Pages: 2 **Completed By:** Deborah Cousins **Reviewed by:** Slate **Date:** 6-30-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map				

626079

ORNL Radiological Survey Data

Survey Number: 3038-95-0865 3038 Field Office Date: 6-23-95 Time: 0615

3038-4P&1B CTA-041 CTB-047

Give daily DAC on smears over
20 dpm/100 cm² α
200 dpm/100 cm² β

α	β
1 ≤20	1 <200
2	2
3	3
4	4
5	5
6	6
7 ↓	7 ↓
8 ≤20	8 <200
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
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31	31
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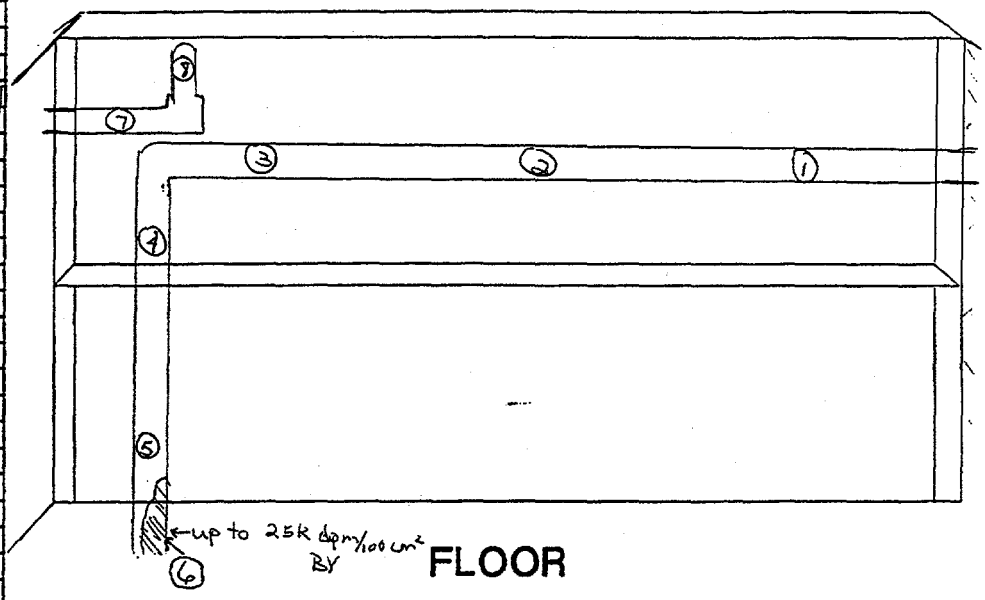
33	33

North Wall



FLOOR

These pipes probed <1000 dpm/100 cm² BY except for the 25k dpm/100 cm² spot. it was < 300 dpm/100 c

(#) - Smear Location	Boundary Designations	
(#)—(#) - Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
# - Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
# - 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
# - General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP - Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS - Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3047-95-1006 **3047 Field Office** **Date:** 6/2/95 **Time:** 21:04

Surveyor Badge Number: 33947 ☐ **Routine Survey** **RWP Number:** N/A

Building: 3034 **Specific Location:** 2nd Floor, West Wall, North Central Section

Description:

Completed comprehensive survey of the west wall, north central section, 2nd floor, bldg.3034

Instruments Used and Calibration Due Date:

3047-02B	10/2/95	3047-06P	10/23/95	CTA-032	3/17/96	CTB-001	3/17/96

General Description of Radiological Conditions:

See attached survey maps for specific radiological conditions. All accessable surfaces probed for alpha and beta gamma, and unless otherwise noted, all direct frisks <1000 dpm beta gamma, <300 dpm alpha.

Division or Group Needing the Survey: CHEM TECH **Person-hours spent on the survey:** 6

# of Pages: 3 **Completed By:** [signature] **Reviewed by:** [signature] **Date:** 6-5-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1-30	<20	<200	See page 2 map								

ORNL Radiological Survey Data

Survey Number: 3047-95-1006 — 3047 Field Office — Date: 6-7-95 Time: 2104

Give easy DAM on smears over
20 dpm/100 cm² α
200 dpm/100 cm² β

	α	β
1	<20	<200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
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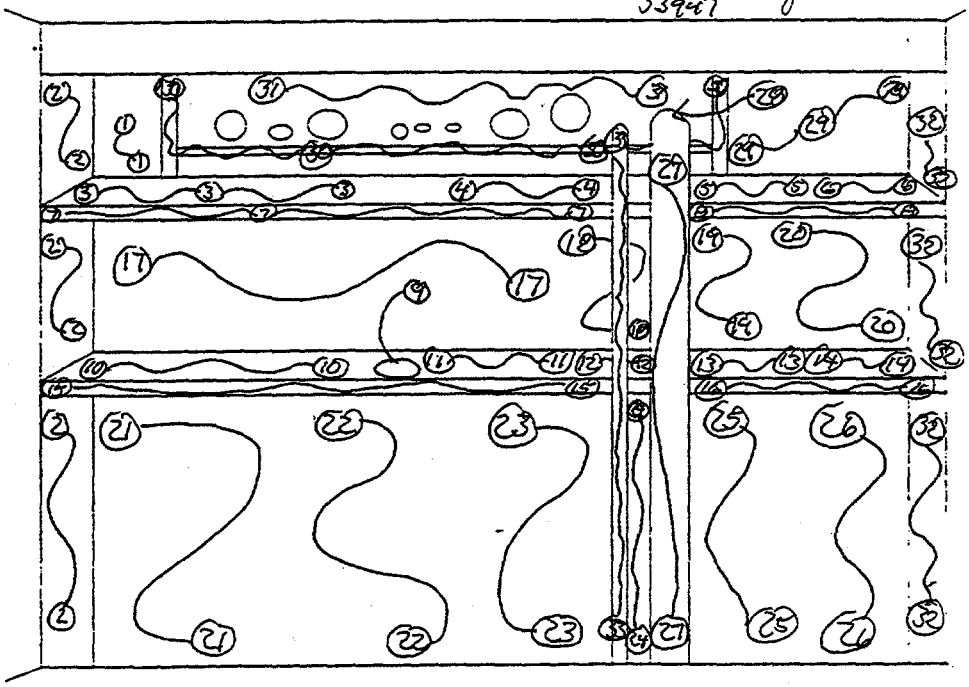
32	↓	↓
33	<20	<200

3034 West Wall, North Central Section

2nd FLOOR

33947



CTA-032 3047-2B
CTB-001 3047-6P

(#)	- Smear Location	Boundary Designations	
(#)—(#)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3047-95-1006 3047 Field Office Date: 6-2-95 Time: 2104

Give easy DAC as smear area
_____ dpm/100 cm² α
_____ dpm/100 cm² β

α	β
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
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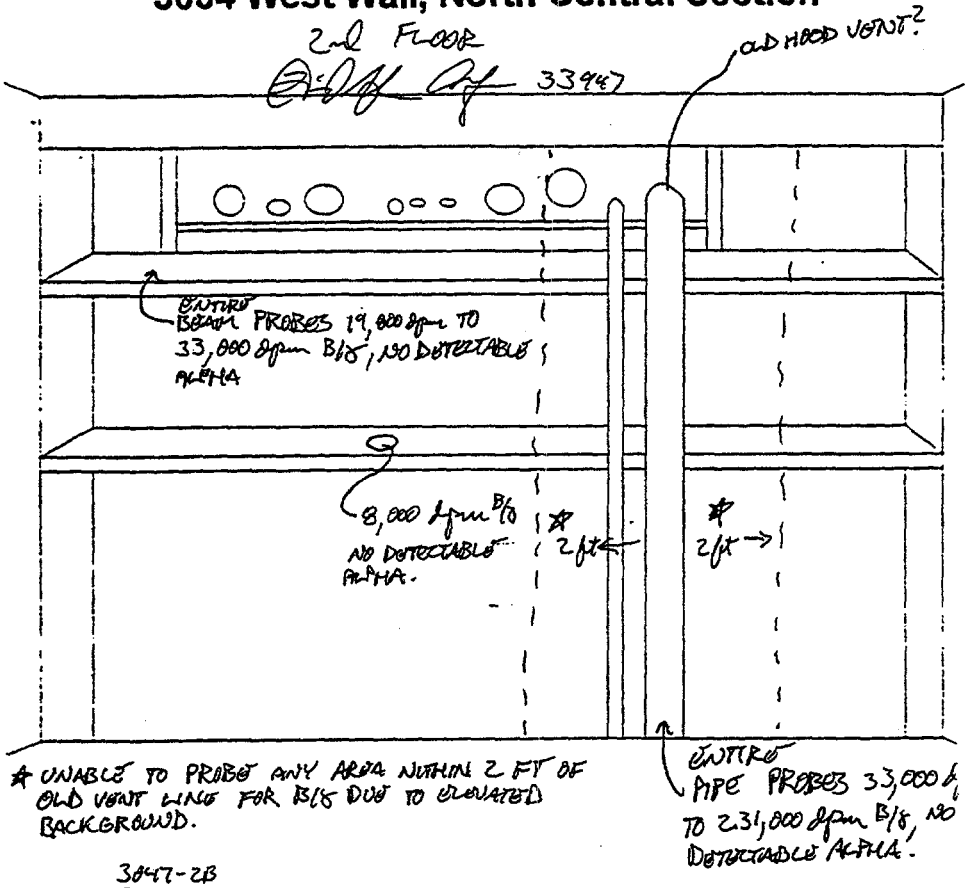
3034 West Wall, North Central Section



3047-23
3047-68

(#)	- Smear Location	Boundary Designations	
(#)—(#)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 3

ORNL Radiological Survey Data

Survey Number: _____ 3038 Field Office: _____ Date: 5/5/95 Time: 0650

A	B
	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14 N	14
15	15
16	16
17	17
18	18
19	19
20	20
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26	26
27	27
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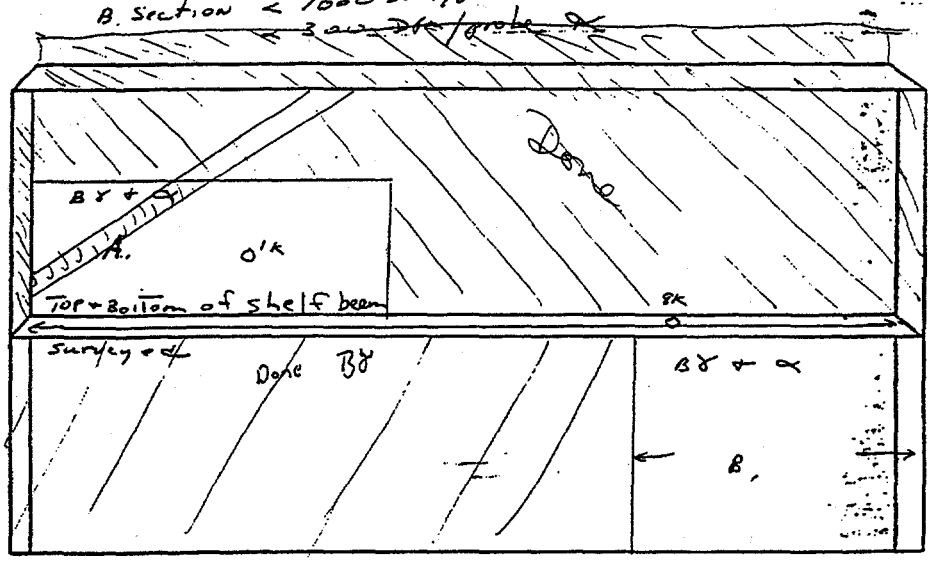
29	29
30	30
31	31
32	32
33	33

Surveyed shelf beam 1K-8K dpm/probe BY (all over)
<300 ~~ND~~ Alpha
DPM/PPA

A. Section up to 1K BY
<300 ~~ND~~ DPM/PPA

B. Section < 1000 DPM/probe BY
<300 ~~DPM/probe~~



FLOOR

~~EFA~~
3038-1B
3038-1P
3038-9P

Wayne Lee 74918
Shaun Bates 74165

(B)	- Smear Location	Boundary Designations	
(B)—(B)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
2	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
9	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
9	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: ____

ORNL Radiological Survey Data

Survey Number: 3038-95-0924 **3038 Field Office** **Date:** 6/7/95 **Time:** 05:00

Surveyor Badge Number: 740968 ☐ Routine Survey **RWP Number:**

Building: 3034 **Specific Location:** 2nd floor,west wall,north section

Description:

Performed a smear survey as well as a direct frisk of the area.

Instruments Used and Calibration Due Date:

CTA-041	2/20/96	CTB-047	2/20/96	3038-1P	9/6/95

General Description of Radiological Conditions:

All smears that were counted for alpha contamination were <20 dpm/100cm2,All smears that were counted for beta-gamma contamination were <200 dpm/100cm2.All non transferable contamination levels were <1000 dpm.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 4

# of Pages: 2 **Completed By:** [signature] **Reviewed by:** [signature] **Date:** 7-11-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	see map	2	<20	<200	see map	3	<20	<200	see map
4	<20	<200	see map	5	<20	<200	see map	6	<20	<200	see map
7	<20	<200	see map	8	<20	<200	see map	9	<20	<200	see map
10	<20	<200	see map	11	<20	<200	see map	12	<20	<200	see map
13	<20	<200	see map	14	<20	<200	see map	15	<20	<200	see map
16	<20	<200	see map	17	<20	<200	see map	18	<20	<200	see map
19	<20	<200	see map	20	<20	<200	see map	21	<20	<200	see map
22	<20	<200	see map	23	<20	<200	see map	24	<20	<200	see map
25	<20	<200	see map								

Uranium Trioxide

ORNL Radiological Survey Data

Survey Number: 3038-95-0924 3047 Field Office Date: 6-7-95 Time: 0500

Grey area DAC as shown over
20 dpm/100 cm² α
200 dpm/100 cm² β

	α	β
1	<20	<200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
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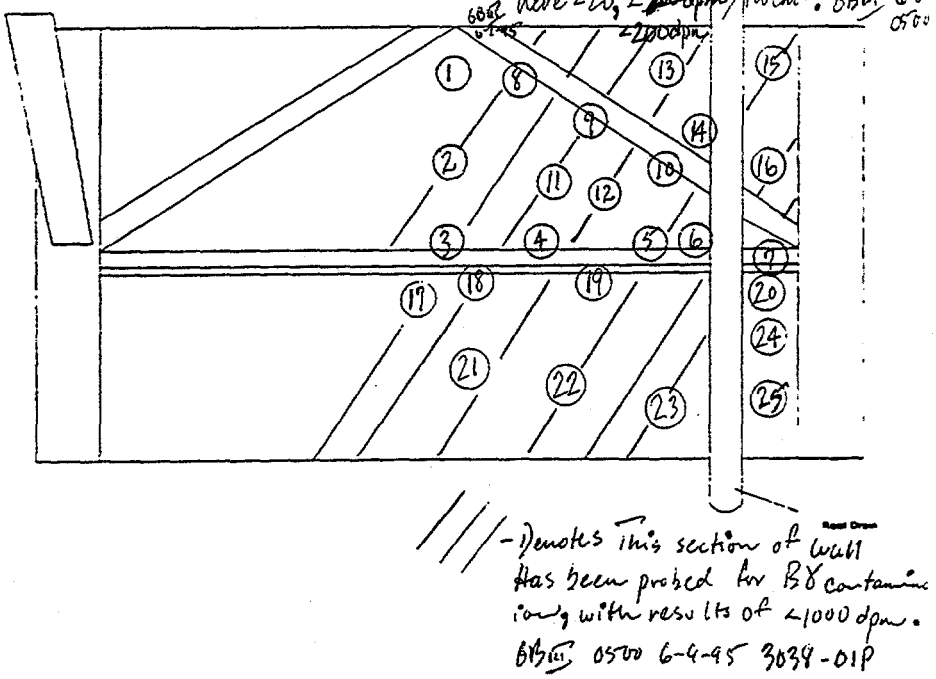
CTA 041 / CTB 047
Smears 1 Thru 16 were counted for Alpha, Bγ contamination ALL were <20, ~~<200 dpm~~/100 cm². <200 dpm 6-7-95 6-7-95

3034 2nd Floor, West Wall, North Section

CTA 041/CTB 047
Smears 17 Thru 25 were counted for Alpha, Bγ contamination ALL were <20, ~~<200 dpm~~/100 cm². 6-7-95 0500 6-7-95 <200 dpm



Road Down

///-Denotes this section of wall has been probed for Bγ contamination with results of <1000 dpm. 6-7-95 0500 6-4-95 3038-01P

⑯	- Smear Location	Boundary Designations	
⑯—⑰	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#/#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: ___

ORNL Radiological Survey Data

Survey Number: 3038-95-0800 **3038 Field Office** **Date:** 5/2/95 **Time:** 16:30

Surveyor Badge Number: 626079 ☐ **Routine Survey** **RWP Number:** N/A

Building: 3034 **Specific Location:** South wall upstairs

Description:

Comprehensive survey.

Instruments Used and Calibration Due Date:

3038-3P 9/18/95 3038-2I 6/26/95

General Description of Radiological Conditions:

The only probe readings above 1000 dpm/100 cm sq beta-gamma were on dirt dobber nests built on the wall. The highest reading was 100,000 dpm beta-gamma and this nest was removed, so the highest remaining nest is 6,000 dpm beta-gamma. All probed <300 dpm/100 cm sq alpha.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 2

# of Pages: 2 **Completed By:** Deborah Crosmo **Reviewed by:** [signature] **Date:** 6-13-95

NA
NA

Survey Number: 3038-95 — 3038 Field Office — Date: 5-2-95 Time: 1630

3038-3P+2I

(partially removed)
up to 3k
(on side under) 1,300 dpm

2nd floor

3034 SOUTH WALL

up to 1k

100k Removed

probed

not probed

6k

Suspect possible internal contamination

FLOOR

* Dirt dobber nests
all probed < 300 dpm/100 cm² alpha

(E)	- Smear Location	Boundary Designations	
(W)—(E)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SCP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0921 **3038 Field Office** **Date:** 7/11/95 **Time:** 12:49

Surveyor Badge Number: 740165 ☒ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** SECOND FLOOR WEST WALL.

Description:

PERFROMED DIRECT FRISK & SMEARED WEST WALL.

Instruments Used and Calibration Due Date:

3038-1P	9/6/95	CTA-041	2/20/96	CTB-047	2/20/96

General Description of Radiological Conditions:

ALL AREAS THAT WERE FRISK & SMEARED WERE <20 DPM/100cm2 & <300 DPM/100cm2 ALPHA & <200 DPM/100cm2 & <1000 DPM/100cm2 B/G.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 4

# of Pages: 2 **Completed By:** [signature] 740165 **Reviewed by:** [signature] **Date:** 7/11/95

Smear Results (dpm/100 cm² unless noted)

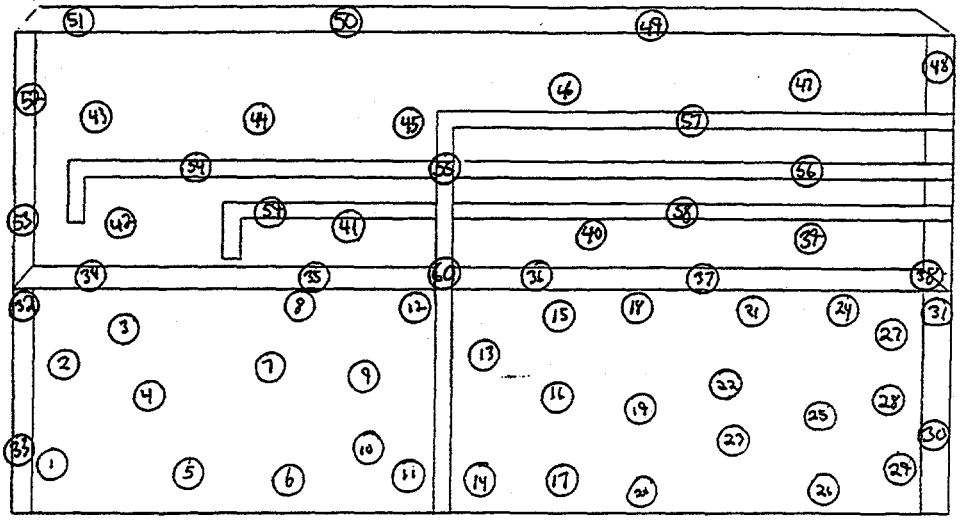
Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1-60	<20	<200	SEE MAP								

ORNL Radiological Survey Data

Survey Number: 3038-95-0921 — 3038 Field Office — Date: 7/11/95 — Time: 12:49

	α	β
Open/100 cm²	20	200
Background	120	1200

3034 WEST WALL



FLOOR

probed & smeared 3038-01P

CTA-041, CTB-047

740115

(1)	- Smear Location	Boundary Designations	
(1)—(2)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
2	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
3	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
4	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

(2)

ORNL Radiological Survey Data

Survey Number: 3038-95-0700 **3038 Field Office** **Date:** 5/11/95 **Time:** 17:00

Surveyor Badge Number: 740165 ☐ Routine Survey **RWP Number:**

Building: 3034 **Specific Location:** 2ND FLOOR EAST CAGE WALL

Description:

2ND FLOOR EAST CAGE WALL BESIDE DOOR TO THE STAIRS.

Instruments Used and Calibration Due Date:

3038-11P	9/25/95	3038-4B	9/11/95	CTB-047	2/20/96	CTA-041	2/20/96

General Description of Radiological Conditions:

DIRECT FRISK READINGS WERE <1000 DPM/100cm2B/G AND <300 DPM/100cm2 ALPHA.ALL SMEARS WERE <200 DPM/100cm2 B/G AND <20 DPM/100cm2 ALPHA.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 2

# of Pages: 2 **Completed By:** SK Burnette **Reviewed by:** [signature] **Date:** 5-16-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	SEE MAP	2	<20	<200	SEE MAP	3	<20	<200	SEE MAP
4	<20	<200	SEE MAP	5	<20	<200	SEE MAP	6	<20	<200	SEE MAP
7	<20	<200	SEE MAP	8	<20	<200	SEE MAP	9	<20	<200	SEE MAP
10	<20	<200	SEE MAP	11	<20	<200	SEE MAP	12	<20	<200	SEE MAP
13	<20	<200	SEE MAP	14	<20	<200	SEE MAP	15	<20	<200	SEE MAP
16	<20	<200	SEE MAP	17	<20	<200	SEE MAP	18	<20	<200	SEE MAP
19	<20	<200	SEE MAP	20	<20	<200	SEE MAP				

ORNL Radiological Survey Data

Survey Number: 3038-95-0100 3038 Field Office Date: 5/11/95 Time: 1700

Give scaly D/M on smears over:
20 dpm/100 cm² α
200 dpm/100 cm² β

	α	β
1	<20	<200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19	↓	↓
20	<20	<200
21		
22		
23		
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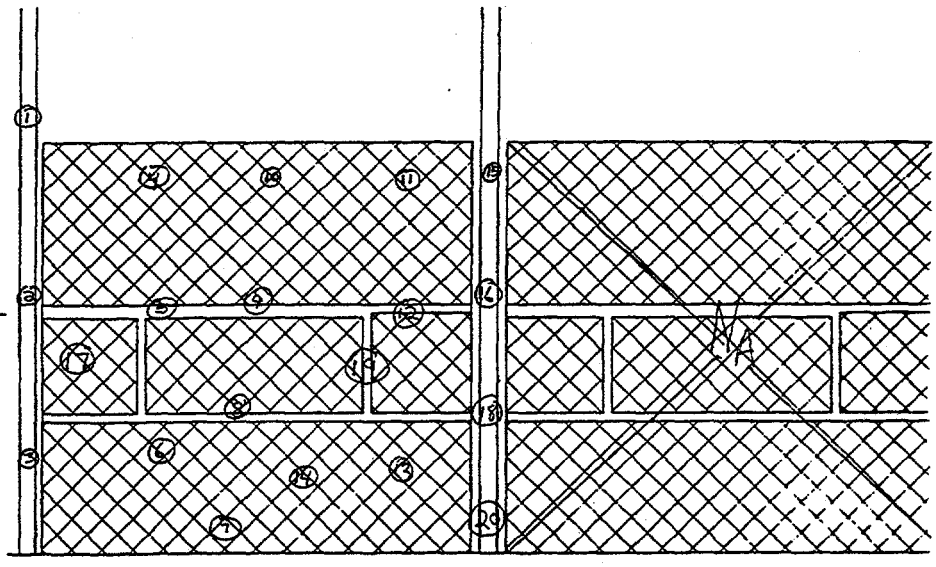
31		
32		
33		



To downstairs

Bldg. 3034 2nd Floor
Direct Frisk readings were <1000 dpm/100cm² β/γ and <300 dpm/100cm² Alpha.

(#)	- Smear Location	Boundary Designations	
(#)—(#)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

3038-11F, 3038-04B, CTA-041, CTB-047

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0802 **3038 Field Office** **Date:** 6/2/95 **Time:** 10:00

Surveyor Badge Number: 626079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** Upstairs cage wall.

Description:
Comprehensive survey.

Instruments Used and Calibration Due Date:

3038-3P	9/18/95	3038-9P	10/18/95	CTB-047	2/20/96	CTA-041	2/20/96

General Description of Radiological Conditions:
All smears were <20 dpm/100 cm sq alpha and <200 dpm/100 cm sq beta-gamma. All areas probed <1000 dpm/100 cm sq beta-gamma.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 3

# of Pages: 2 **Completed By:** Deborah Crowe **Reviewed by:** [signature] **Date:** 6-23-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map	17	<20	<200	See map	18	<20	<200	See map
19	<20	<200	See map	20	<20	<200	See map	21	<20	<200	See map
22	<20	<200	See map	23	<20	<200	See map				

626079
1000

ORNL Radiological Survey Data

6-2-95

Survey Number: 3038-95-0802 3038 Field Office Date: 5-23-95 Time: 1430

3038-3P
3038-9P on 6-2-95

Give easy DAC on smears over
20 dpm/100 cm² α
200 dpm/100 cm² β

	α	β
1	< 20	< 200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23	< 20	< 200
24		
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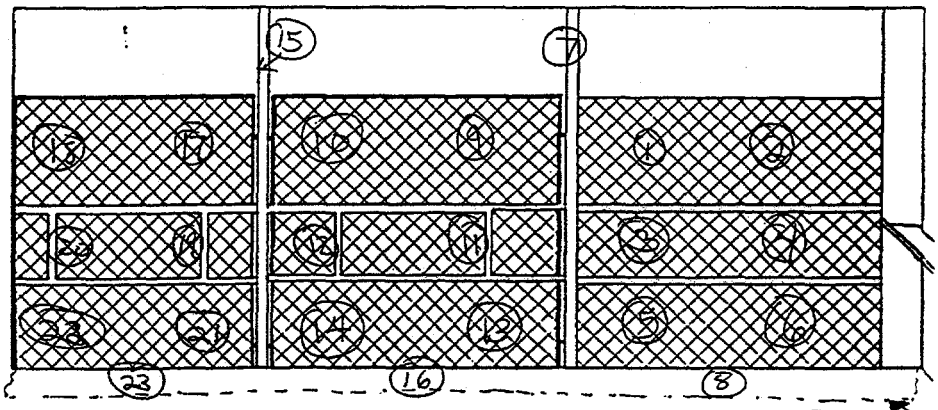
33		

EAST CAGE WALL



Beam on outside

3034 2nd floor

All these smears are on the outside of the cage.

* all areas probed < 1000 dpm/100 cm² BY.

②	- Smear Location	Boundary Designations	
②——②	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
2	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
2	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
2	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0726 **3038 Field Office** **Date:** 5/16/95 **Time:** 15:37

Surveyor Badge Number: 34657 ☐ Routine Survey **RWP Number:**

Building: 3034 **Specific Location:** UPSTAIRS STORAGE CAGE

Description:

CONTAMINATION SURVEY OTF THE EAST CAGE WALL. THIS SURVEY IS FOR THE SECOND LARGE SECTION TO THE SOUTH SIDE THE DOOR.(SEE MAP)

Instruments Used and Calibration Due Date:

CTA-041	2/20/96	CTB-047	2/20/96	3038-2B	10/23/95	3038-9P	10/18/95

General Description of Radiological Conditions:

ALL DIRECT READINGS WERE <300 DPMALPHA AND <1000 DPM BETA-GAMMA. THERE WERE SIXTEEN SMEARS TAKEN ON THIS SECTION OF THE CAGE WALL. ALL SMEARS WERE FOUND TO BE FREE AND CLEAR OF ANY RADIOACTIVE CONTAMINATION. (<20 DPM/100 CM^2 ALPHA AND <200 DPM/100 CM^2 BETA-GAMMA).

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 1.5

# of Pages: 2 **Completed By:** 34657 **Reviewed by:** **Date:** 5/23/95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	SEE MAP FOR LOCATION	2	<20	<200	SEE MAP FOR LOCATION	3	<20	<200	SEE MAP FOR LOCATION
4	<20	<200	SEE MAP FOR LOCATION	5	<20	<200	SEE MAP FOR LOCATION	6	<20	<200	SEE MAP FOR LOCATION
7	<20	<200	SEE MAP FOR LOCATION	8	<20	<200	SEE MAP FOR LOCATION	9	<20	<200	SEE MAP FOR LOCATION
10	<20	<200	SEE MAP FOR LOCATION	11	<20	<200	SEE MAP FOR LOCATION	12	<20	<200	SEE MAP FOR LOCATION
13	<20	<200	SEE MAP FOR LOCATION	14	<20	<200	SEE MAP FOR LOCATION	15	<20	<200	SEE MAP FOR LOCATION
16	<20	<200	SEE MAP FOR LOCATION	17	<20	<200	SEE MAP FOR LOCATION				

ORNL Radiological Survey Data

Survey Number: 3038-95-0726 3038 Field Office Date: 5/16/95 Time: 3:00pm

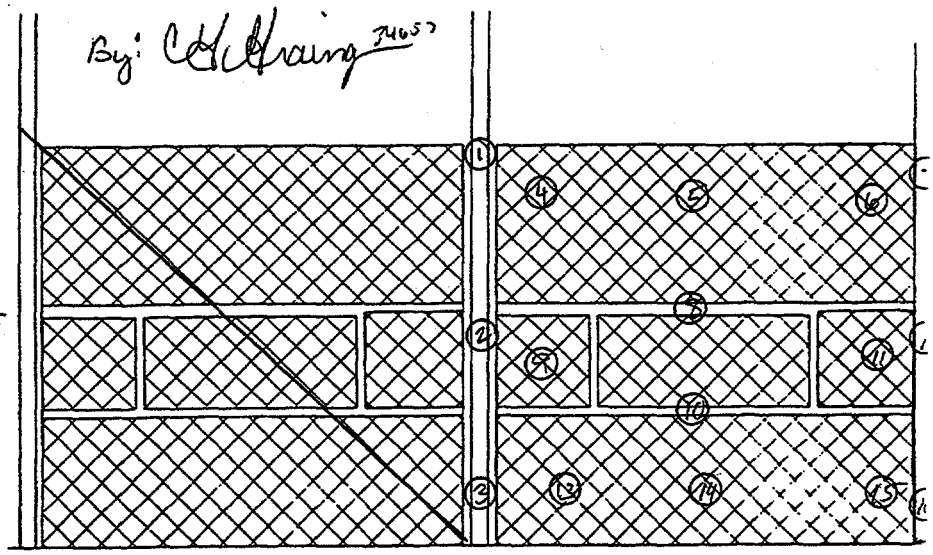
Give daily DPM as shown over
20 dpm/100 cm² α
200 dpm/100 cm² β

α	β
1 < 20	1 < 200
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16 < 20	16 < 200
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33

INSTRUMENTS USED:
CTA-041 3038-09P
CTB-047 3038-02B

EAST CAGE WALL

By: C. Hickman 7465



Bldg. 3034 2nd Floor

ⓔ	- Smear Location	Boundary Designations	
ⓕ—ⓔ	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

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ORNL Radiological Survey Data

Survey Number: 3038-95-0674 **3038 Field Office** **Date:** 5/2/95 **Time:** 16:30

Surveyor Badge Number: 626079 ☐ Routine Survey **RWP Number:**

Building: 3034 **Specific Location:** Upstairs cage area.

Description:

Comprehensive survey of building. Part of this survey was done on 4/25/95.

Instruments Used and Calibration Due Date:

CTB-047	2/20/96	CTA-041	2/20/96	3038-8P	10/16/95	3038-3P	9/18/95

General Description of Radiological Conditions:

The whole area probed <1000 dpm/100 cm sq bet-gamma. All smears were <20 dpm/100 cm sq alpha and <200 dpm/100 cm sq beta-gamma.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 4

# of Pages: 2 **Completed By:** Deborah Crossno **Reviewed by:** [signature] **Date:** 5-16-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map	17	<20	<200	See map	18	<20	<200	See map
19	<20	<200	See map	20	<20	<200	See map	21	<20	<200	See map
22	<20	<200	See map	23	<20	<200	See map	24	<20	<200	See map
25	<20	<200	See map	26	<20	<200	See map	27	<20	<200	See map
28	<20	<200	See map	29	<20	<200	See map	30	<20	<200	See map
31	<20	<200	See map	32	<20	<200	See map	33	<20	<200	See map
34	<20	<200	See map	35	<20	<200	See map	36	<20	<200	See map
37	<20	<200	See map	38	<20	<200	See map	39	<20	<200	See map

626079

ORNL Radiological Survey Data

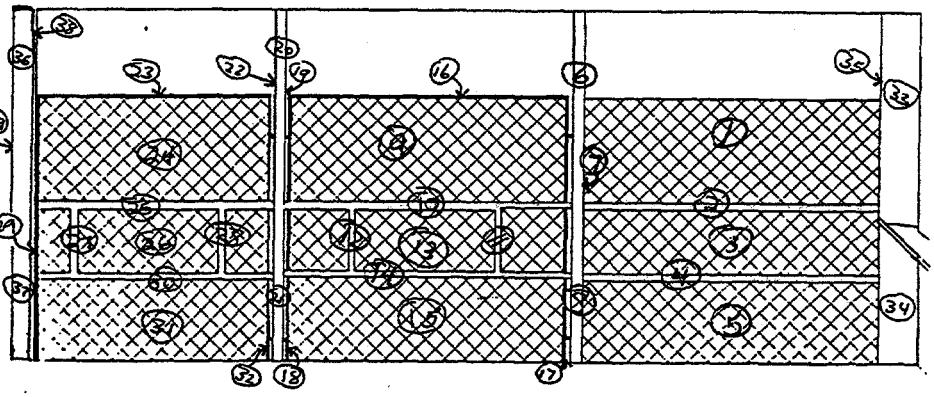
Survey Number: 3038-95-0674 3038 Field Office Date: 5-2-95 (4-25-95) Time: 1630

CTA-041 CTB-047 3038-8P on 4-25-95 3038-3P on 5-2-95

Give scale DAS as shown over
20 dpm/100 cm² α
200 dpm/100 cm² β

α	β
1 < 20	1 < 200
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33 < 20	33 < 200
34 < 20	< 200
35	
36	
37	
38	
39 < 20	< 200

EAST CAGE WALL



3034 2nd floor

Inside of cage only.
Probes < 1,000 dpm/100 cm² Bγ
+ < 500 dpm/100 cm² α

		Boundary Designations	
#	- Smear Location		
#—#	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0801 **3038 Field Office** **Date:** 6/2/95 **Time:** 14:00

Surveyor Badge Number: 826079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** Upstairs cage wall on north end.

Description:
Comprehensive survey.

Instruments Used and Calibration Due Date:

3038-9P	10/18/95	3038-2B	10/23/95	CTB-047	2/20/96	CTA-041	2/20/96

General Description of Radiological Conditions:
All smears were <20 dpm/100 cm sq alpha and <200 dpm/100 cm sq beta-gamma. The only spot above 1000 dpm/100 cm sq beta-gamma was a 6,000 dpm spot and it probed <300 dpm/100 cm sq alpha.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 1.5

# of Pages: 2 **Completed By:** Deborah Crossno **Reviewed by:** [signature] **Date:** 6-13-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map	17	<20	<200	See map				

ORNL Radiological Survey Data

626079

Survey Number: 3038-95-0801 3038 Field Office Date: 6-2-95 Time: 1400

CTB-041 CTA-041 3038-9P + 2B

	α	β
1	<20	<200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16	<20	<200
17		
18		
19		
20		
21		
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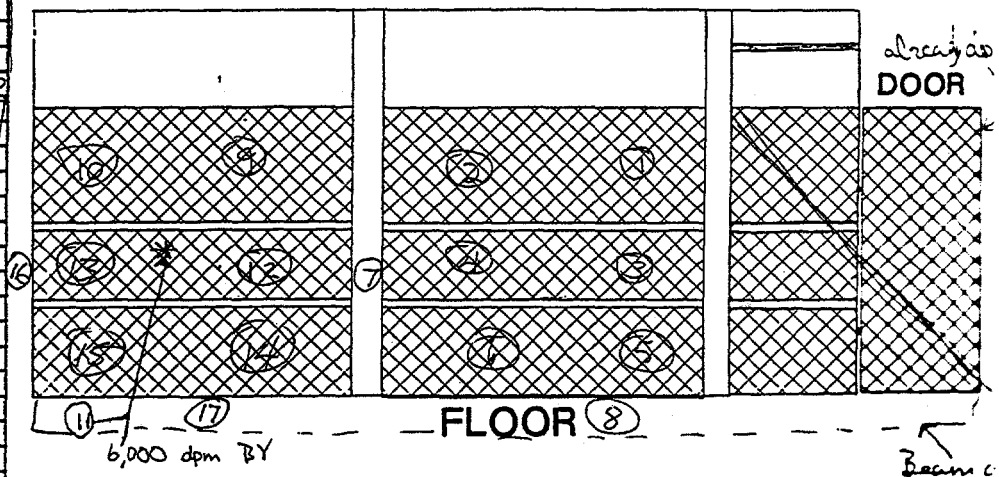
EAST CAGE WALL ON NORTH END



Smears taken on outside of cage.

*All areas probed < 1000 dpm/100 cm² βγ except for the 6k spot and it was < 300 dpm/100 alpha

⑨	- Smear Location	Boundary Designations	
⑭ ⑮	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
γ	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
β	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
ß	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Latter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3047-95-1077 **3047 Field Office** **Date:** 5/16/95 **Time:** 15:00

Surveyor Badge Number: 626444 ☒ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** North-East Cage

Description:

Conducted contamination survey of the North-East Cage wall in building 3034.

Instruments Used and Calibration Due Date:

CTA-032	3/17/96	CTB-001	3/17/96	3047-01P	9/18/95	3047-02B	10/2/95

General Description of Radiological Conditions:

The maximum non-transferable contamination was 10,000 dpm/100cm^2 beta-gamma. The maximum transferable contamination was 400 dpm/100cm^2 beta-gamma. This smear was taken on the floor adjoining the front of the wall.

Division or Group Needing the Survey: CHEM TECH **Person-hours spent on the survey:** 1.5

# of Pages: 2 **Completed By:** Tony Davis **Reviewed by:** [signature] **Date:** 7-11-95

Smear Results (dpm/100 cm^2 unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1-13	<20	<200	See map	14	<20	400	See map				

ORNL Radiological Survey Data

Tony Yus 626444

Survey Number: 3047-95-1077 3047 Field Office Date: 5/16/95 Time: 15:00

Count duty DPM on smears over
20 dpm/100 cm² α
200 dpm/100 cm² β

	α	β
1	<20	<200
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		<200
14	<20	400
15		
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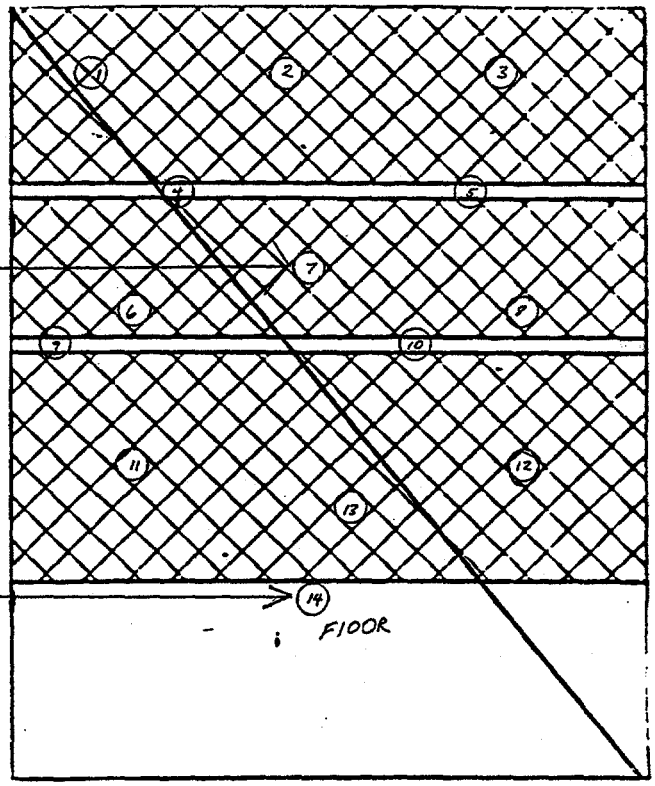

CTA-032
CTB-001
3047-01P
3047-02B

(#)	- Smear Location	Boundary Designations	
(#)—(#)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#/	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#/	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0725 **3038 Field Office** **Date:** 5/16/95 **Time:** 15:22

Surveyor Badge Number: 34657 ☐ Routine Survey **RWP Number:**

Building: 3034 **Specific Location:** UPSTAIRS STORAGE CAGE

Description:

COMTAMINATION SURVEY OF THE EAST CAGE WALL. THIS IS FOR THE SECOND LARGE SECTION OF THE WIRE WALL FROM THE NORTH END OF THE BUILDING.

Instruments Used and Calibration Due Date:

CTA-041	2/20/96	CTB-047	2/20/96	3038-2B	10/23/95	3038-9P	10/18/95

General Description of Radiological Conditions:

ALL DIRECT READINGS WERE <300 DPM ALPHA AND <1000 DPM BETA-GAMMA. THERE WERE FOURTEEN SMEARS TAKEN ON THIS SECTION OF THE CAGE WALL. ALL SMEARS WERE FOUND TO BE FREE AND CLEAR OF ANY RADIOACTIVE CONTAMINATION.(<20 DPM/100 CM^2 ALPHA AND <200 DPM/100 CM^2 BETA-GAMMA).

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 1.5

# of Pages: 2 **Completed By:** [signature] 34657 **Reviewed by:** [signature] **Date:** 5/23/95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	SEE MAP FOR LOCATION	2	<20	<200	SEE MAP FOR LOCATION	3	<20	<200	SEE MAP FOR LOCATION
4	<20	<200	SEE MAP FOR LOCATION	5	<20	<200	SEE MAP FOR LOCATION	6	<20	<200	SEE MAP FOR LOCATION
7	<20	<200	SEE MAP FOR LOCATION	8	<20	<200	SEE MAP FOR LOCATION	9	<20	<200	SEE MAP FOR LOCATION
10	<20	<200	SEE MAP FOR LOCATION	11	<20	<200	SEE MAP FOR LOCATION	12	<20	<200	SEE MAP FOR LOCATION
13	<20	<200	SEE MAP FOR LOCATION	14	<20	<200	SEE MAP FOR LOCATION				

ORNL Radiological Survey Data

20 dpm/100 cm² α
200 dpm/100 cm² β

Survey Number: 3038-95-0725 3038 Field Office Date: 5/16/95 Time: 3:00pm

	α	β
1	L20	L200
2		
3		
4		
5		
6		
7		
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11		
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13		
14	L20	L200
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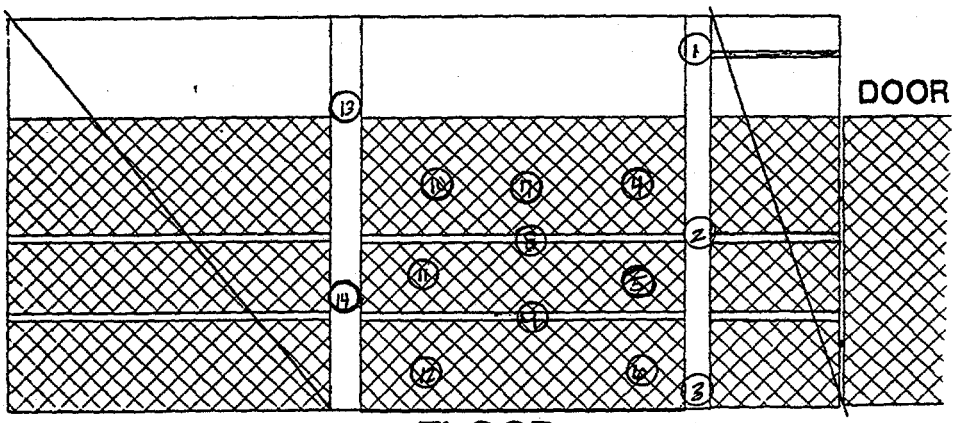
EAST CAGE WALL ON NORTH END



INSTRUMENTS USED: By: [signature] 3465

3038-09P
3038-02B
CTA-041
CTB-047

(#)	- Smear Location	Boundary Designations	
(#)—(#)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0803 **3038 Field Office** **Date:** 6/2/95 **Time:** 15:30

Surveyor Badge Number: 626079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** Upstairs cage wall.

Description:

Comprehensive survey.

Instruments Used and Calibration Due Date:

3038-9P 10/18/95 CTB-047 2/20/96 CTA-041 2/20/96

General Description of Radiological Conditions:

All smears <20 dpm/100 cm sq alpha and <200 dpm/100 cm sq beta-gamma. All areas probed <1000 dpm/100 cm sq beta-gamma.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 1.5

# of Pages: 2 **Completed By:** Deborah Cravens **Reviewed by:** [signature] **Date:** 6-13-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map								

626079

ORNL Radiological Survey Data

Survey Number: 3038-95-0803 3038 Field Office Date: 6-2-95 Time: ~~1062~~ 1530

CTB-047 CTA-041 3038-9P

Count empty O.B4 on numbers shown
20 dpm/100 cm² α
200 dpm/100 cm² β

	α	β
1	< 20	< 200
2		
3		
4		
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14		
15	↓	↓
16	< 20	< 200
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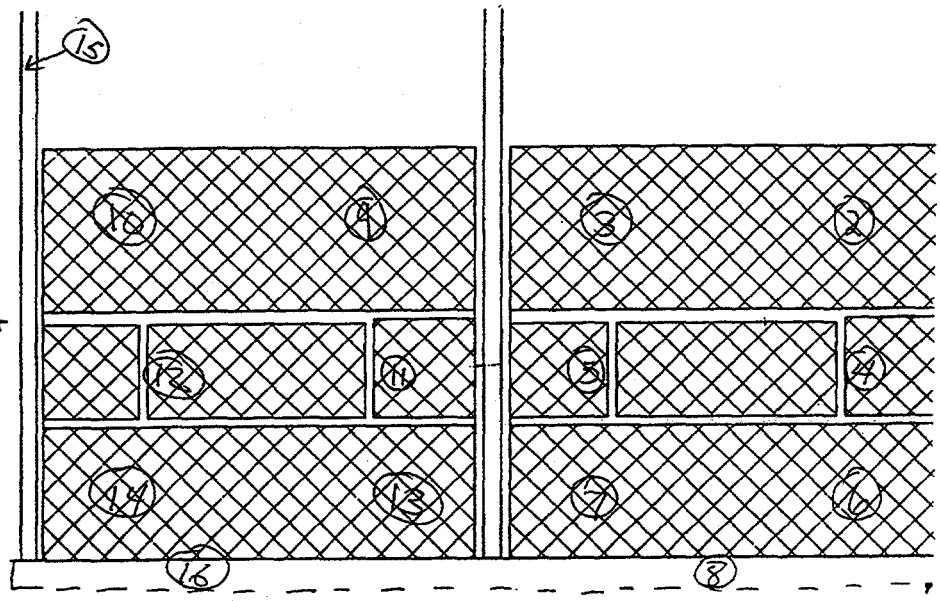
EAST CAGE WALL



* All smears on the outside of cage.

* All areas probed < 1000 dpm/100 cm² BY.

(#)	- Smear Location	Boundary Designations	
(#)—(#)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: ____

ORNL Radiological Survey Data

Survey Number: 3038-95-0733 **3038 Field Office** **Date:** 5/9/95 **Time:** 18:00

Surveyor Badge Number: 628079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** Cage area on 2nd floor.

Description:

Comprehensive survey of east cage wall on north end.

Instruments Used and Calibration Due Date:

3038-4P	8/19/95	3038-2B	10/23/95	CTB-047	2/20/96	CTA-041	2/20/96

General Description of Radiological Conditions:

All smears were <20 dpm/100 cm and <200 dpm/100 cm sq beta-gamma. The only probe reading above 1000 dpm/100 cm sq beta-gamma probed 37,000 dpm beta-gamma and <300 dpm/100 cm sq alpha.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 1.5

# of Pages: 2 **Completed By:** Deborah Lowery **Reviewed by:** Slate **Date:** 6-5-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map	17	<20	<200	See map				

ORNL Radiological Survey Data

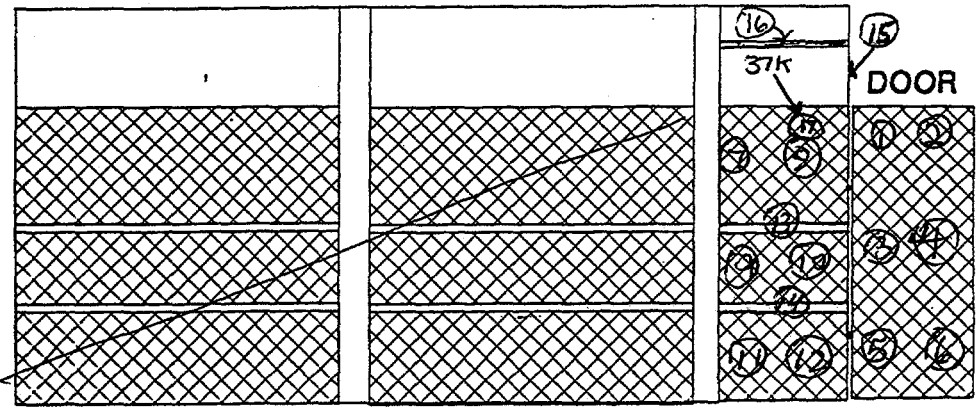
626079

Survey Number: 3038-95-0733 | 3038 Field Office | Date: 5-9-95 | Time: ~~0600~~ 1800

CTA-041 CTB-041 3038-4P 3038-2E

Cpm/100 cm² α	Cpm/100 cm² β
< 20	< 200

EAST CAGE WALL ON NORTH END



Area surveyed probes < 1000 dpm/100 cm² βγ (except for 37k spot)

↓

< 300 dpm/100 cm² α

Smears no. 1-12 are for both sides. (Example smear no. is for that area from and back)

		Boundary Designations	
(#)	- Smear Location		
(#)—(#)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#__	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3047-95-1070 **3047 Field Office** **Date:** 6/30/95 **Time:** 7:00

Surveyor Badge Number: 33947 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** Second Level,North East Corner of Floor.

Description:

Continued the comprensive survey of 3034, north east floor, second level.

Instruments Used and Calibration Due Date:

3047-10P 12/2/95 3047-01B 12/14/95

General Description of Radiological Conditions:

All direct frisks <300 dpm/100cm^2 alpha, <1000 dpm/100cm^2 beta gamma (unless otherwise noted on map). No tranaferable contamination detected.

Division or Group Needing the Survey: CEHM TECH **Person-hours spent on the survey:** 2

# of Pages: 2 **Completed By:** [signature] **Reviewed by:** [signature] **Date:** 7-11-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1-20	<20	<200	See map								

ORNL Radiological Survey Data

Survey Number: 3047-95-1070 3047 Field Office Date: 6-30-95 Time: 1400

Geo mean DPM on smears over
20 dpm/100 cm² α
200 dpm/100 cm² β

	α	β
1	<20	400
2		<200
3		
4		
5		
6		
7		
8		
9	∨	∨
10	<20	<200
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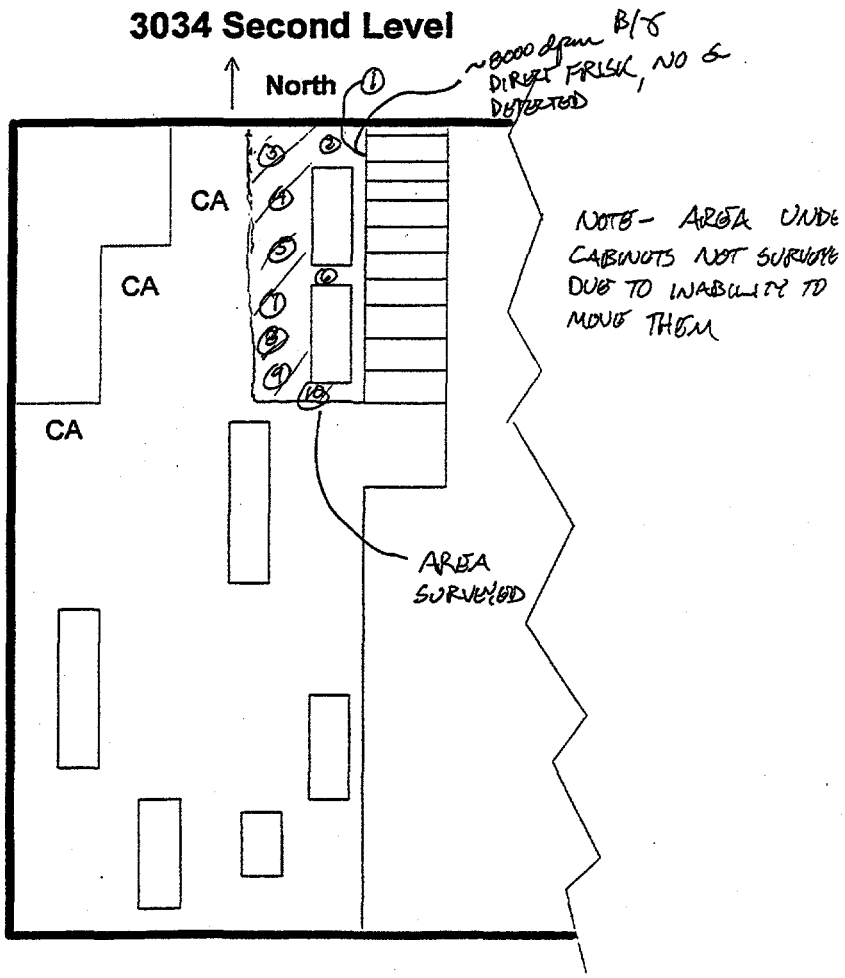


#	- Smear Location	Boundary Designations	
#—#	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0917 **3038 Field Office** **Date:** 7/10/95 **Time:** 17:29

Surveyor Badge Number: 34657 ☐ **Routine Survey** **RWP Number:** NONE

Building: 3034 **Specific Location:** floor of the sedcond level.

Description:

A contaminaton survey of the floor of the entire second level of building 3034 was preformed. This included a direct frisk as well as a smear survey. Two seperate areas were marked off as a contamination areas. VARIOUS PORTABLE INSTRUMENTS WERE USED DURING THIS SURVEY BY DIFFRENT PEOPLE OVER A PERIOD OF SEVERAL DAYS.

Instruments Used and Calibration Due Date:

CTA-041 2/20/96 CTB-047 2/20/96

General Description of Radiological Conditions:

Non-transferable contamination levels ranged from 2,000 dpm beta-gamma up to 80,000 dpm beta-gamma. Transferable contamination levels ranged from 125 dpm/100 cm^2 beta-gamma to 250 dpm/100 cm^2 beta-gamma. The areas that the transferable contamination was found has been marked off as a contamination area(s).

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** >10

# of Pages: 3 **Completed By:** 5465 **Reviewed by:** **Date:** 7-11-95

Smear Results (dpm/100 cm² unless noted)

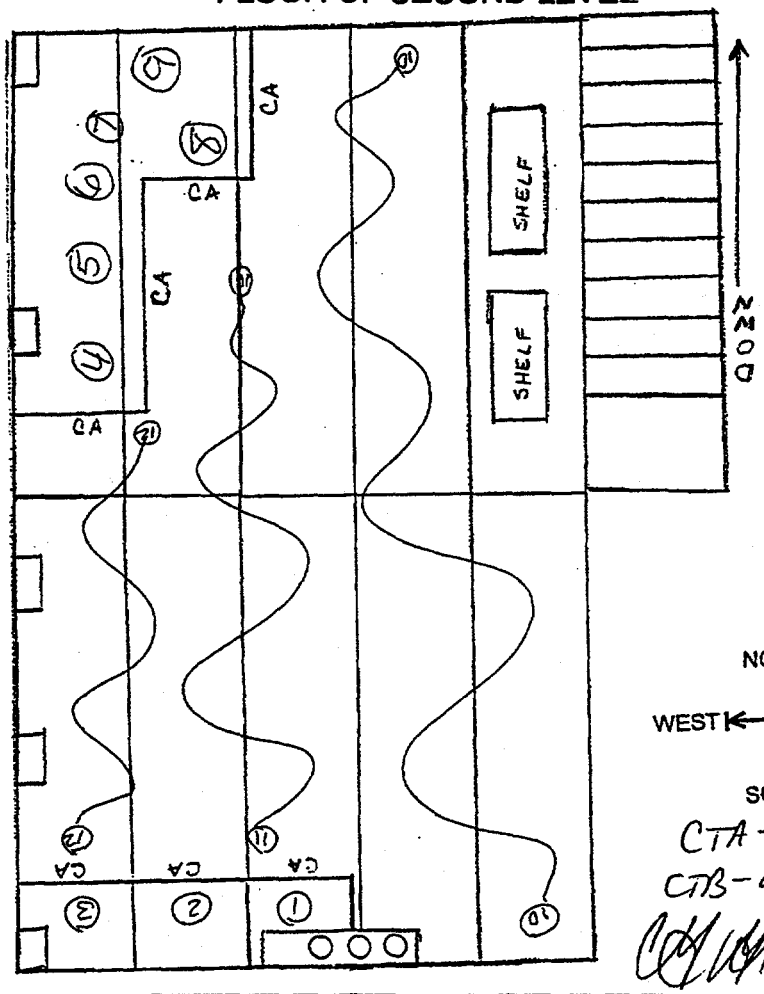
Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	see map	2	<20	125	see map	3	<20	<200	see map
4	<20	<200	see map	5	<20	<200	see map	6	<20	<200	see map
7	<20	250	see map	8	<20	<200	see map	9	<20	<200	see map
10	ND/ASC	ND/GMT	see map	11	ND/ASC	ND/GMT	see map	12	ND/ASC	ND/GMT	see map

ORNL Radiological Survey Data

Survey Number: 3038-95-910 | 3038 Field Office | Date: 7/10/95 Time: 1745

BUILDING 3034, SECOND LEVEL CEILING
FLOOR OF SECOND LEVEL

	A	B
1	<BKG	<BKG
2		125
3		
4		
5		
6	<BKG	
7		250
8	<BKG	
9	<BKG	<BKG
10	ND/ABC	ND/GMT
11	ND/ABC	ND/GMT
12	ND/ABC	ND/GMT



CTA-041
CTB-041

⑩	- Smear Location	Boundary Designations	
⑩—⑩	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
5	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
5	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
5	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

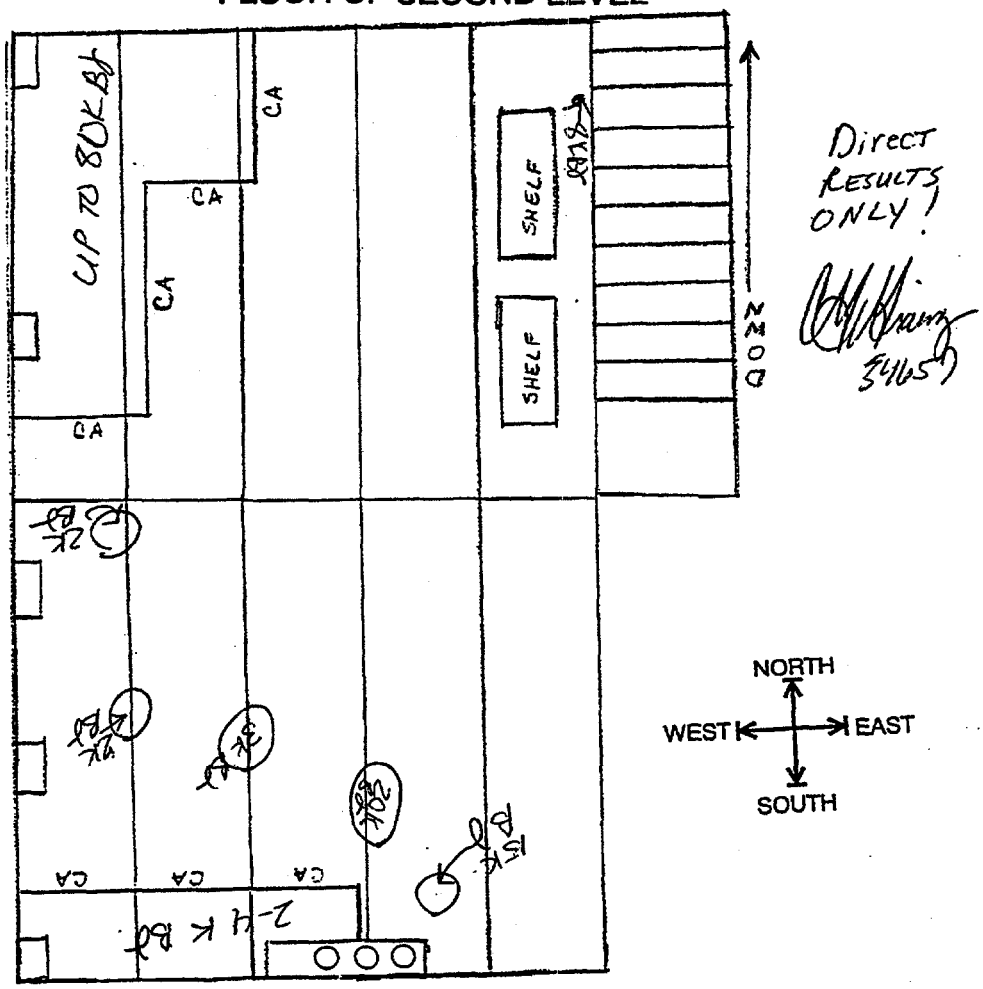
Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-9590 3038 Field Office Date: 7/10/95 Time: 1745

BUILDING 3034, SECOND LEVEL CEILING
FLOOR OF SECOND LEVEL



Direct results only!

NORTH
WEST EAST
SOUTH

⊙	- Smear Location	Boundary Designations	
⊙—⊙	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 3

ORNL Radiological Survey Data

Survey Number: 3038-95-0836 **3038 Field Office** **Date:** 6/16/95 **Time:** 06:15

Surveyor Badge Number: 626079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** Ceiling in upstairs cage area.

Description:

Comprehensive survey.

Instruments Used and Calibration Due Date:

CTB-047	2/20/96	CTA-041	2/20/96	3038-4P	8/19/95	3038-1B	11/17/95

General Description of Radiological Conditions:

All areas smeared <20 dpm/100 cm sq alpha and <200 dpm/100 cm sq beta-gamma. One spot probed 47,000 dpm beta-gamma and it was <300 dpm/100 cm sq alpha.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 2.5

# of Pages: 2 **Completed By:** Deborah Crossno **Reviewed by:** [signature] **Date:** 6-25-95

Smear Results (dpm/100 cm^2 unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map	17	<20	<200	See map	18	<20	<200	See map
19	<20	<200	See map	20	<20	<200	See map	21	<20	<200	See map
22	<20	<200	See map	23	<20	<200	See map	24	<20	<200	See map
25	<20	<200	See map	26	<20	<200	See map	27	<20	<200	See map
28	<20	<200	See map	29	<20	<200	See map	30	<20	<200	See map
31	<20	<200	See map	32	<20	<200	See map	33	<20	<200	See map
34	<20	<200	See map	35	<20	<200	See map				

20 dpm/100 cm² α
200 dpm/100 cm² β

ORNL Radiological Survey Data 626079

Survey Number: 3038-95-0836 3038 Field Office Date: 6-16-95 Time: 0615

3038-4Pt1B CTB-047 CTA-041

α	β
1 <20	K200
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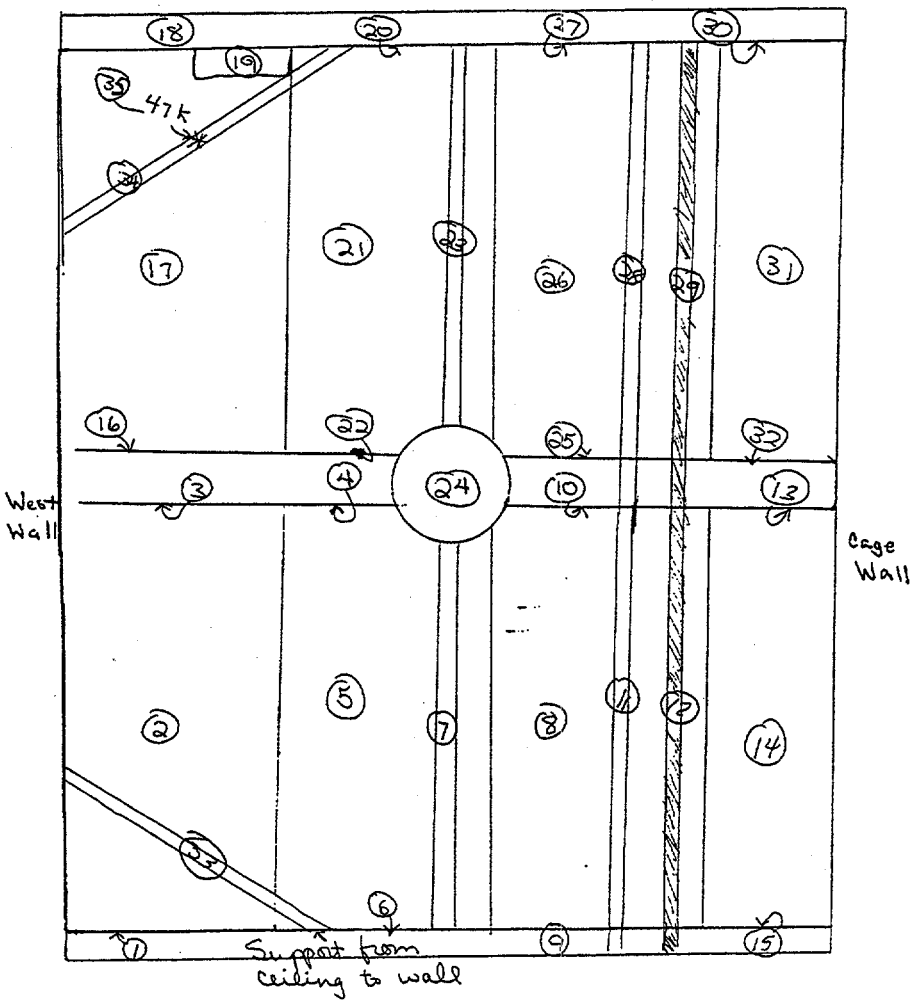


⊕ - Smear Location	Boundary Designations	
⊕—⊕ - Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
# - Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
# - 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
# - General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP - Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS - Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

All areas probed < 1000 dpm/100 cm² β except for the 47k dpm spot and it was < 300 dpm/100 cm² α.

Page 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0925 **3038 Field Office** **Date:** 7/6/95 **Time:** 07:00

Surveyor Badge Number: 740968 ☐ Routine Survey **RWP Number:**

Building: 3034 **Specific Location:** Second level ceiling.

Description:

Performed a smear survey as well as a direct frisk of the area.

Instruments Used and Calibration Due Date:

CTA-041	2/20/96	CTB-026	2/20/96	3038-5P	6/13/95

General Description of Radiological Conditions:

All smears that were counted for alpha contamination were <20 dpm/100cm2, All smears that were counted for beta-gamma contamination were <200 dpm/100cm2.All non transferable contamination levels were <1000 dpm unless otherwise noted on map.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 4

# of Pages: 2 **Completed By:** [signature] **Reviewed by:** [signature] **Date:** 7-11-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1-63	<20	<200	see map								

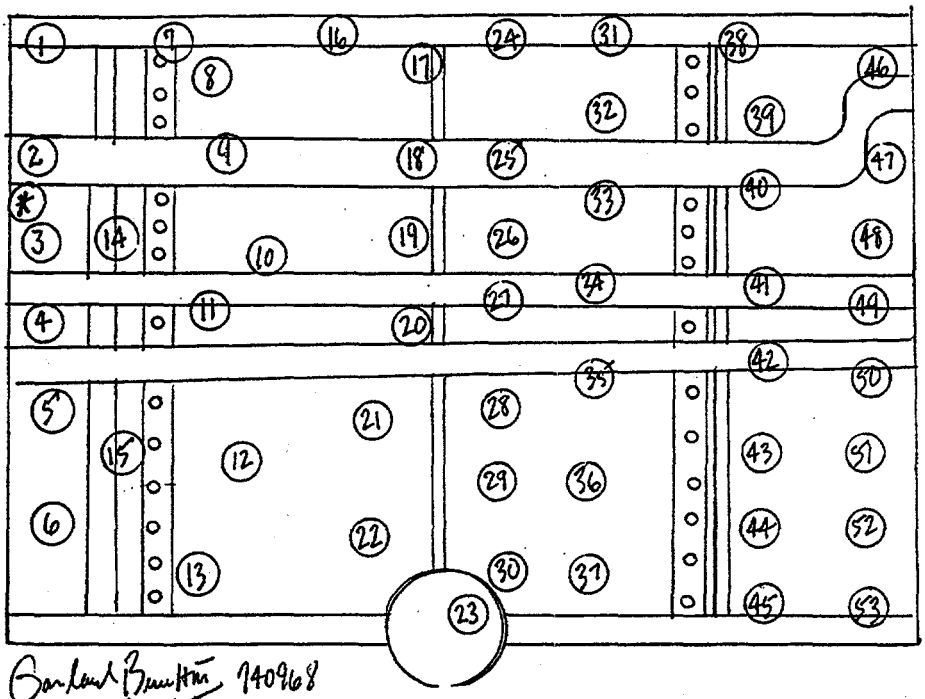
Contamination 20 dpm/100 cm² ; 200 dpm/100 cm²

ORNL Radiological Survey Data

Survey Number: 3038-95-0925 3038 Field Office Date: 7-6-95 Time: 0700

BUILDING 3034, SECOND LEVEL CEILING

THIRD SECTION FROM THE NORTH END OF BUILDING



Garland Bruton 740968

CTA 041/CTB 047

3038-05P

(*) Denotes 300cpm Bγ in area due to High Background from piping.

NORTH
WEST
EAST
SOUTH

(1) - Smear Location		Boundary Designations	
(1)—(2) - Large Area Smear		RA - Radiation Area	BA - Radiological Buffer Area
1 - Contact Dose Rate		HR - High Radiation Area	CA - Contamination Area
1 - 30 cm Dose Rate		VR - Very High Radiation Area	HC - High Contamination Area
1 - General Area Dose Rate		AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SCP - Step-off Pad		RM - Radioactive Materials Area	SC - Soil Contamination Area
AS - Air Sample Location		UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: ____

ORNL Radiological Survey Data

Survey Number: 3038-95-0922 **3038 Field Office** **Date:** 7/11/95 **Time:** 13:05

Surveyor Badge Number: 740165 ☒ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** SECOND LEVEL CEILING,second section from northwall

Description:

PERFORMED DIRCT FRISK & SMEARED SECOND FLOOR CEILING.

Instruments Used and Calibration Due Date:

3038-8P	10/16/95	3038-08B	12/24/95	CTB-047	2/20/96	CTA-041	2/20/96

General Description of Radiological Conditions:

DIRECT FRISK READINGS RANGE FROM 1K TO 5K DPM/100cm2 B/G & ALPHA READINGS WERE <300 DPM/100cm2.ALL SMEARS THAT WERE TAKEN WERE <20DPM/100cm2 ALPHA & <200DPM/100cm2 B/G.SEE MAP FOR SPECIFIC LOCATIONS.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 4

# of Pages: 3 **Completed By:** [signature] **Reviewed by:** [signature] **Date:** 7-11-95

Smear Results (dpm/100 cm² unless noted)

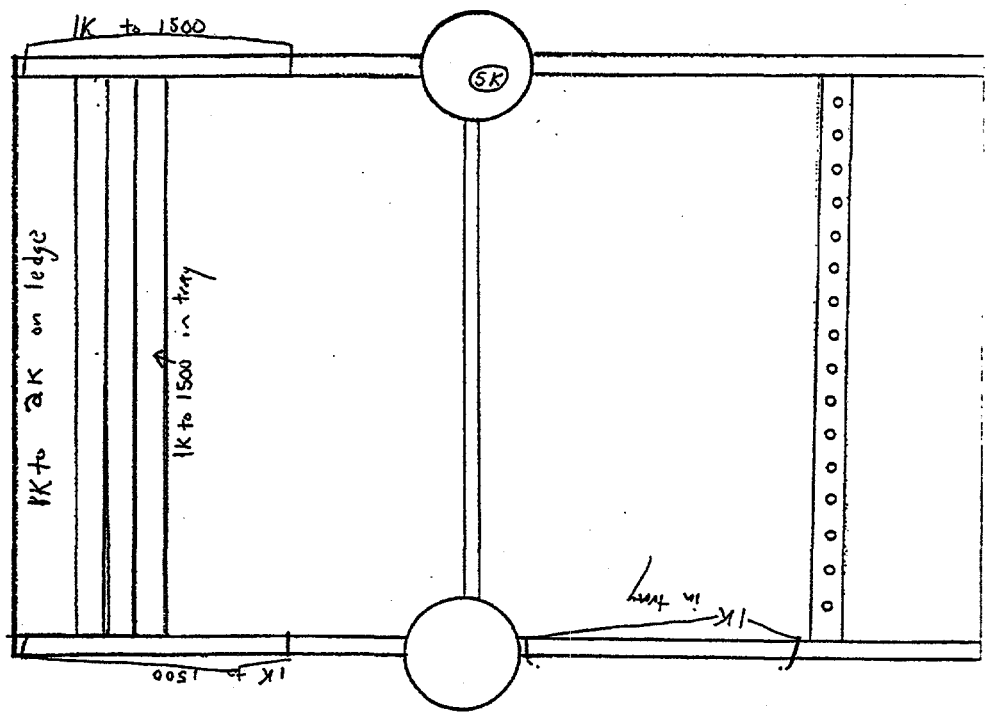
Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1-30	<20	<200	SEE MAP								

ORNL Radiological Survey Data

Survey Number: 3038-95-0922 3038 Field Office Date: 7/11/95 Time: 13:05

BUILDING 3034, SECOND LEVEL CEILING

SECOND SECTION FROM THE NORTH END OF BUILDING



Note: All reading are for Beta-Gamma rad.

NORTH
WEST EAST
SOUTH

74065 CTA-091, CTB-047
3038-08P, 3038-08B

(E) - Smear Location	Boundary Designations	
(E)—(E) - Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
g - Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
g - 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
g - General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP - Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS - Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

Cover area: 20 dpm/100 cm² α; 200 dpm/100 cm² β

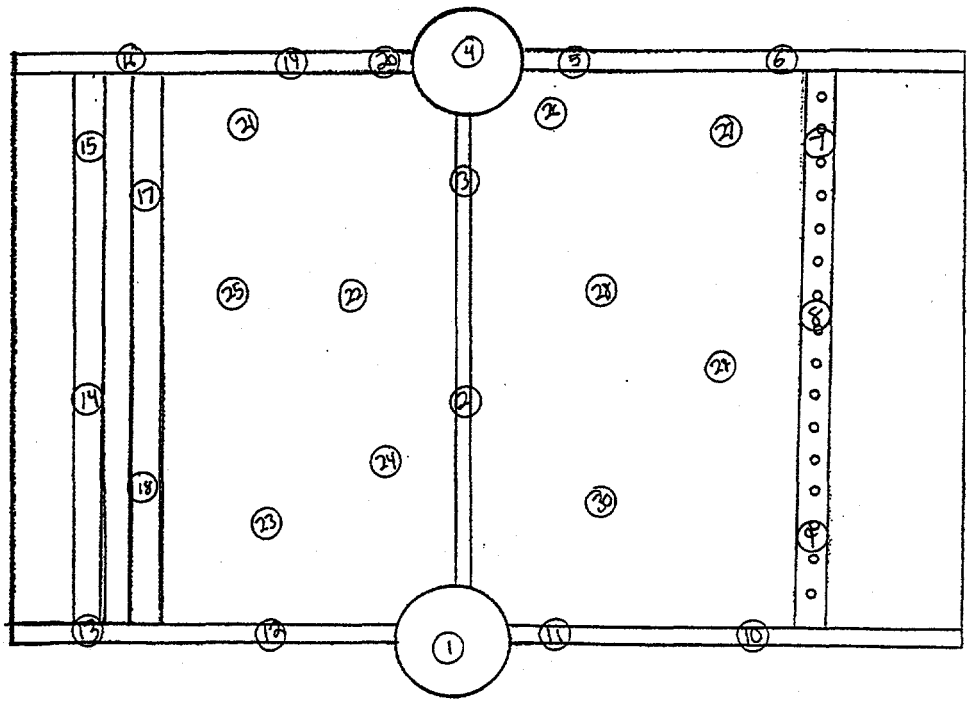
ORNL Radiological Survey Data

Survey Number: 3038-95-0922 — 3038 Field Office — Date: 7/11/95 Time: 13:05

α	β
1 L20	L200

BUILDING 3034, SECOND LEVEL CEILING

SECOND SECTION FROM THE NORTH END OF BUILDING



Sharon Bennett 7/10/95 CTA-011, CTB-047, 3038-08P, 3038-08B

⊕ - Smear Location	Boundary Designations	
⊕—⊕ - Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
γ - Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
γ - 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
γ - General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP - Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS - Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 3

ORNL Radiological Survey Data

Survey Number: 3038-95-0920 **3038 Field Office** **Date:** 7/11/95 **Time:** 11:30

Surveyor Badge Number: 34657 ☐ **Routine Survey** **RWP Number:** none

Building: 3034 **Specific Location:** Second Level Ceiling; fourth section from north

Description:

Preformed a smear survey as well as a direct frisk of the area.

Instruments Used and Calibration Due Date:

CTA-041	2/20/96	CTB-047	2/20/96	3038-5P	12/4/95	3038-05B	12/24/95

General Description of Radiological Conditions:

All smears were found to be <20 dpm/100cm^2, alpha and <200 dpm/100 cm^2, beta-gamma. Non transferable contamination levels ranged from 1500 dpm, beta-gamma to 5,000 dpm, beta-gamma. .

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 2.75

# of Pages: 2 **Completed By:** 34657 **Reviewed by:** **Date:** 7-11-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1-33	<20	<200	see map for location								

ORNL Radiological Survey Data

Survey Number: 3038-95-0920 3038 Field Office Date: 7/11/95 Time: 11:30 AM

Give each DAM as beam over
<220 dpm/100 cm² α
<200 dpm/100 cm² β

α	β
1 <220	1 <200
2 <220	2 <200
3 <220	3 <200
4 <220	4 <200
5 <220	5 <200
6 <220	6 <200
7 <220	7 <200
8 <220	8 <200
9 <220	9 <200
10 <220	10 <200
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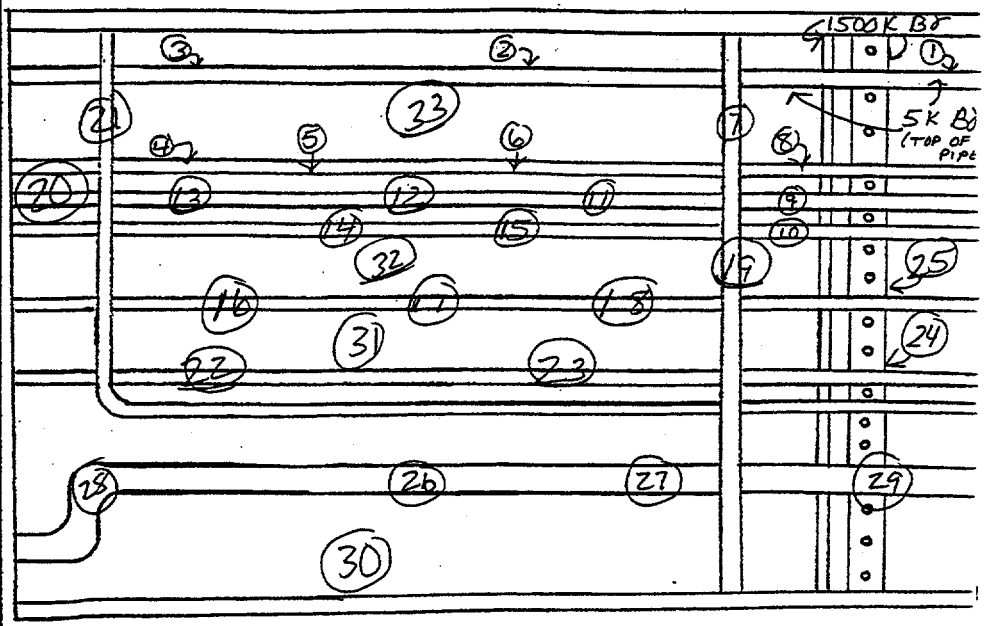
BUILDING 3034, SECOND LEVEL CEILING

FOURTH SECTION FROM THE NORTH END OF BUILDING



#	- Smear Location	Boundary Designations	
#—#	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
#	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
#	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
#	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

Page: 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0875 **3038 Field Office** **Date:** 6/23/95 **Time:** 07:00

Surveyor Badge Number: 626079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 ***Specific Location:*** *Upstairs in cage area.*

Description:

Comprehensive survey.

Instruments Used and Calibration Due Date:

3038-4P	8/19/95	3038-1B	11/17/95	CTB-047	2/20/96	CTA-041	2/20/96

General Description of Radiological Conditions:

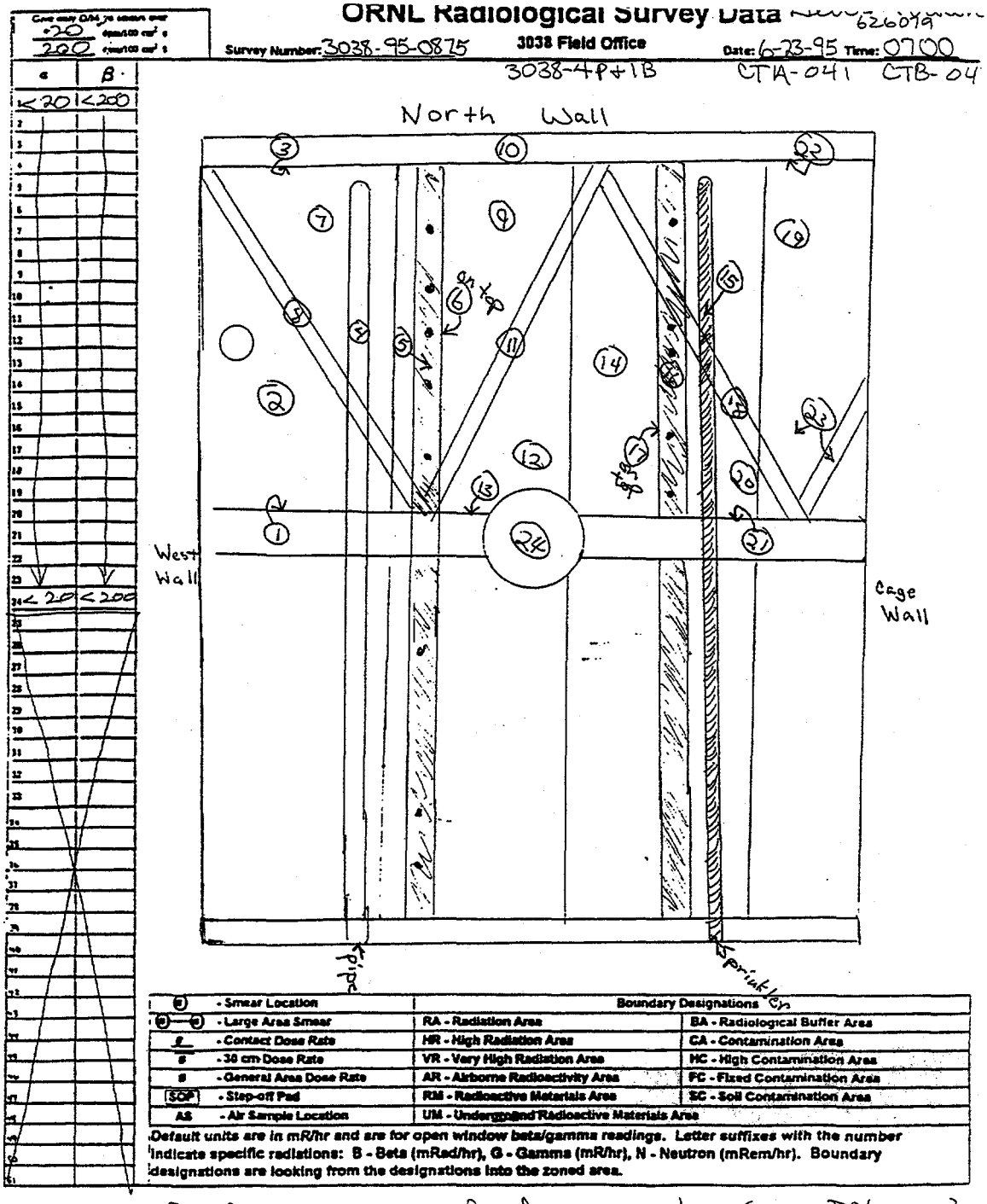
All smears were <200 dpm/100 cm sq beta-gamma and <20 dpm/100 cm sq alpha. All areas probed were <1000 dpm/100 cm sq beta-gamma.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 1.5

# of Pages: 2 **Completed By:** Deborah Cravens **Reviewed by:** [signature] **Date:** 6-30-95

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map	17	<20	<200	See map	18	<20	<200	See map
19	<20	<200	See map	20	<20	<200	See map	21	<20	<200	See map
22	<20	<200	See map	23	<20	<200	See map	24	<20	<200	See map



ORNL Radiological Survey Data 626049

Survey Number: 3038-95-0875 — 3038 Field Office — Date: 6-23-95 Time: 0700

3038-4P+1B CTA-041 CTB-04

Cove entry DPM per square over	
20	dpm/100 cm² α
200	dpm/100 cm² β

α	β
<20	<200
<20	<200

North Wall

West Wall

Cage Wall

Pipe

Sprinkler

(1)	- Smear Location	Boundary Designations	
(1)—(2)	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
1	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
5	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
5	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

All areas probed < 1000 dpm/100 cm² BY

Page 2

ORNL Radiological Survey Data

Survey Number: 3038-95-0835 **3038 Field Office** **Date:** 6/15/95 **Time:** 06:15

Surveyor Badge Number: 626079 ☐ Routine Survey **RWP Number:** N/A

Building: 3034 **Specific Location:** Ceiling in upstairs cage area.

Description:
Comprehensive survey.

Instruments Used and Calibration Due Date:

CTB-047	2/20/96	CTA-041	2/20/96	3038-4P	3038-1B

General Description of Radiological Conditions:
The highest smears were 139 dpm/100 cm sq alpha on smear no. 18 and 637 dpm/100 cm sq beta-gamma on smear no. 31. One spot probed 25,000 dpm beta-gamma and another probed 3,000 beta-gamma and 1,370 dpm/100 cm sq alpha a second was taken to try and obtain a higher sample for the gamma spec. team but resulted in a smear no higher and afterward the spot no longer probed.

Division or Group Needing the Survey: CT **Person-hours spent on the survey:** 2.5

# of Pages: 2 **Completed By:** Deborah Crossno **Reviewed by:** **Date:**

Smear Results (dpm/100 cm² unless noted)

Smear Number	α	β	Location	Smear Number	α	β	Location	Smear Number	α	β	Location
1	<20	<200	See map	2	<20	<200	See map	3	<20	<200	See map
4	<20	<200	See map	5	<20	<200	See map	6	<20	<200	See map
7	<20	<200	See map	8	<20	<200	See map	9	<20	<200	See map
10	<20	<200	See map	11	<20	<200	See map	12	<20	<200	See map
13	<20	<200	See map	14	<20	<200	See map	15	<20	<200	See map
16	<20	<200	See map	17	<20	<200	See map	18	139	203	See map
19	<20	<200	See map	20	<20	<200	See map	21	<20	<200	See map
22	<20	<200	See map	23	<20	<200	See map	24	<20	<200	See map
25	<20	<200	See map	26	<20	<200	See map	27	<20	<200	See map
28	<20	<200	See map	29	<20	<200	See map	30	<20	<200	See map
31	<20	637	See map	32	<20	<200	See map				

ORNL Radiological Survey Data

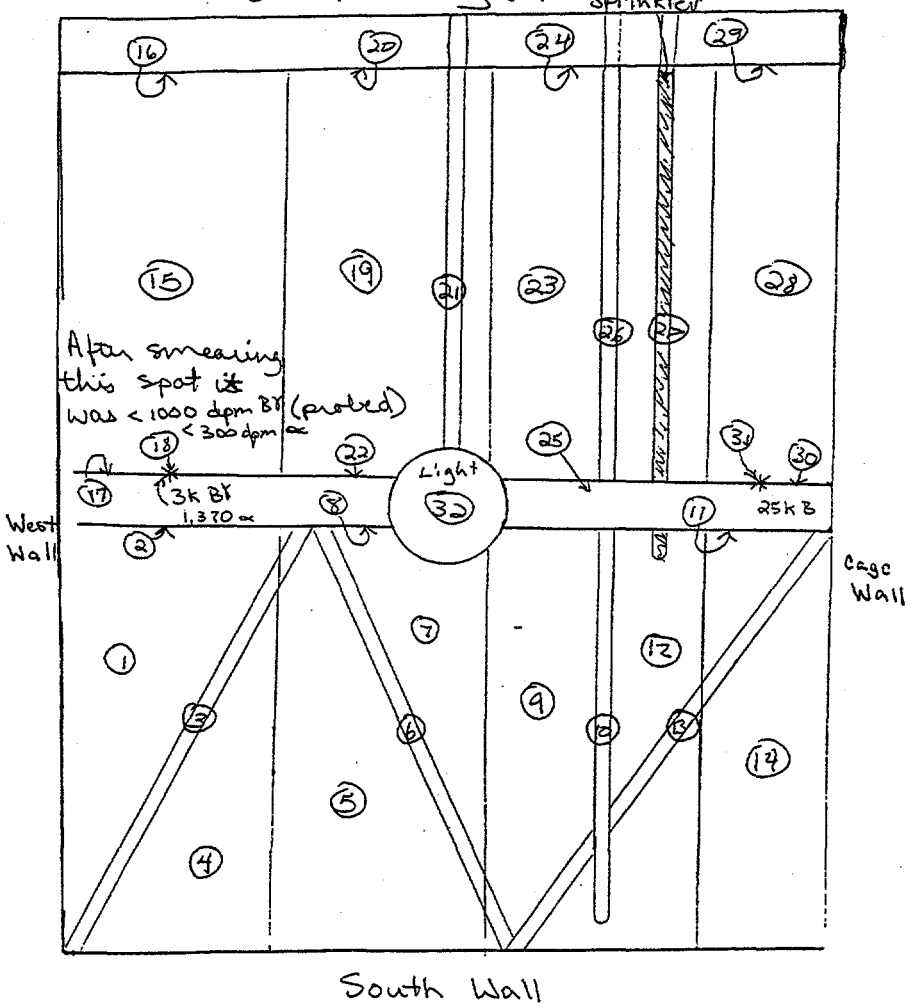
626079

Survey Number: 3038-95-0835 | 3038 Field Office | Date: 6-15-95 Time: 0615

3038-4P+1B CTA-041 CTB-047

3034 Ceiling (upstairs) Sprinkler

#	B
30	203
31	637



		Boundary Designations	
⑫	- Smear Location		
⑫—⑫	- Large Area Smear	RA - Radiation Area	BA - Radiological Buffer Area
β	- Contact Dose Rate	HR - High Radiation Area	CA - Contamination Area
γ (30 cm)	- 30 cm Dose Rate	VR - Very High Radiation Area	HC - High Contamination Area
γ	- General Area Dose Rate	AR - Airborne Radioactivity Area	FC - Fixed Contamination Area
SOP	- Step-off Pad	RM - Radioactive Materials Area	SC - Soil Contamination Area
AS	- Air Sample Location	UM - Underground Radioactive Materials Area	

Default units are in mR/hr and are for open window beta/gamma readings. Letter suffixes with the number indicate specific radiations: B - Beta (mRad/hr), G - Gamma (mR/hr), N - Neutron (mRem/hr). Boundary designations are looking from the designations into the zoned area.

All areas probed < 1000 dpm/100 cm² βγ except the 25k dpm beta spot and it probed < 300 dpm/100 cm² α.

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ATTACHMENT 7
S&M TURNOVER
PACKAGE CHECKLIST

S&m Turnover Package Checklist

Item number	Document	Applicable ?
1	Postdeactivation Surveillance and Maintenance Plan	Yes
2	Postdeactivation Surveillance and Maintenance Updated Effluent Monitoring Plan	No
3	Postdeactivation Surveillance and Maintenance Updated Safety Equipment List	No
4	Postdeactivation Surveillance and Maintenance Procedures	No
5	Postdeactivation Surveillance and Maintenance Recommendations	No
6	Mothballed Systems Lay-up and Restart Documentation	No

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