3005-0203260001

MOUND

Environmental Restoration Program

Ohio EPA

MOUND PLANT
Building Data Package
Building 63

Public Review Draft
March 2002

REV	DESCRIPTION	DATE
WORKING DRAFT (to DOE)		**December 2001**
DRAFT (to Core Team)	OEPA changes included adding TFV data in Appendix L and list energetics. Non-agency changes include: update PRS 72 status to NFA and add recom. pg to App N. Updated 4.2.4.2 soil sampling data text to reflect new data.	**December 2001**
DRAFT PROPOSED FINAL (Core Team comments incorporated)	NA	**NA**
PUBLIC REVIEW DRAFT	Incorporates agency comments and includes signed recommendation page.	**March 2002**
FINAL (Public Review comments incorporated)		

MOUND PLANT RECOMMENDATION

Building 63

Background:

Building 63W was built to serve as a non-destructive spin test facility for energetic material containing components. Building 63E was built for offices and for component tester fabrication, which included a small machine shop. Building 63 is currently leased and similar operations are being performed.

Recommendation:

After thorough review of the environmental data and the Building Data Package, the Core Team agrees that all existing environmental issues associated with Building 63 have been resolved. Future use of Building 63 will be restricted to commercial/industrial use. The Core Team hereby recommends that the U.S. Department of Energy submit a letter to the Administrator of the U.S. EPA for final approval of the lease or sale of this property, as required by Section 120(h) of CERCLA.

DOE/MEMP: _____
Robert S. Rothman, Remedial Project Manager

USEPA: _____
Timothy J. Fischer, Remedial Project Manager

OEPA: _____
Brian K. Nickel, Project Manager

BUILDING DATA PACKAGE (BDP)

Building 63

(Transition)

DOE MOUND PLANT

MIAMISBURG, OHIO 45343

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1.0 General Overview

1.1 Introduction

The purpose of this Building Data Package (BDP) is to prepare for the transfer of Building 63 to the Miamisburg Mound Community Improvement Corporation (MMCIC) and to identify, if possible, any recognized environmental conditions (defined below) that may affect the subject property and building.

Recognized Environmental Condition: The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a likely release, a past release, or a material threat of a release of any hazardous substances or petroleum into structures, or into the air, ground, groundwater, or surface water near the building.

1.2 Scope

This document has been prepared in accordance with the agreements and requirements as specified in the Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach. This document is a BDP for Building 63 located at the Department of Energy (DOE) Mound Plant in Miamisburg, Ohio. This investigation was performed to support procedures as found in American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process (Designation E 1527-97).

The scope of the investigation included the building, the soil beneath, and a 15-foot wide perimeter border around the building. This perimeter includes roadways, sidewalks, pavement, and grass covered areas. The investigation of Building 63 included the following:

1) A building and perimeter inspection.
2) An examination of historical aerial photographs and maps.
3) A review of federal and state regulatory agency records.
4) Personnel interviews.
5) A review of Mound Plant records for:
   A) History of spills, releases, and chemical inventories
   B) Past sampling data (see Appendices)
      - Radiological survey
      - Soil sampling
      - Lead paint
      - Asbestos
      - Radon

Building investigations were conducted by BWXT of Ohio (BWXTO) personnel.

Information used to compile BDPs includes the following:

- Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, August 1990
- OU-9 Site Scoping Report, Volumes 1-12
- Mound Facility Physical Characterization, December 1992
- Active Underground Storage Tank Plan, November 1994
- OU-9 Hydrological Investigation, Bedrock Report, January 1994
- OU-9 Hydrological Investigation, Buried Valley Aquifer Report, March 1994
- Environmental Appraisal Report of the Mound Plant, March 1996
- Title Search
- Lease Information
- EDR Report - Radius Map
- Building Prints
- Potential Release Site (PRS) Information
- Mound Manual MD-222153, Mound Site Radionuclides By Location, July 1995 Contaminant Surveys
- Mound Document MLM-3791, Mound Facility Physical Characterization, December 1993

2.0 Building Specific Overview

Mound Plant is located in the southern portion of the corporation limits of Miamisburg, Ohio. The subject property consists of Mound Plant Building 63, the soil beneath, and a 15-foot wide perimeter around the building. Building 63 contains 17,468 square feet of which 3,050 square feet is in the west section and the remaining 14,418 square feet is in the east section. The west section, which is a one-story building, was constructed in 1981. The east section, which is a two-story building, was constructed in 1984. See Appendix D for floor plans.

2.1 Current Uses of Building 63

Building 63 is currently leased to MMCIC, which currently leases the 63E portion to Perkin-Elmer. Safe Shutdown was concluded in 1995 at which time the lease agreement was signed. Perkin-Elmer fabricates components containing energetic materials. Building 63 is used for offices and fixture fabrication. This is similar to operations performed when the DOE used the facility. Waste currently stored in Building 63 is dependent upon the operations of the lessee, Perkin-Elmer.

2.2 Past Uses of Building 63

Building 63W was built to serve as a non-destructive spin test facility for energetic material containing components. Building 63E for offices and for component tester fabrication, which included a small machine shop.

According to Brady Barnhart (Mound employee who supervised the Safe Shutdown activities and worked with the materials at the site), components that contained energetic materials were tested in Building 63 and may have included PETN, TATB, HMX, RDX, and HNS*. Jerry Allison (previous manager of fabrication and testing of energetic components in the test fire valley) reported that only components were tested and loose materials were not handled within or outside of the building. Testing was performed within self-contained units. Since the testing process destroys the energetic materials, none would have been exhausted to be deposited onto the ground.

2.3 Summary of Environmental Concerns and Findings - Building 63

DESCRIPTION	COMMENT	RESOLUTION
Lead Paint	N/A	N/A
Chemicals	DOE chemicals were removed. Lessee May be using chemicals.	
Fluorescent Lamps and PCBs	N/A	
Asbestos	Building contains asbestos containing material, but it appears intact	
Drainage Sumps	N/A	
Lead	N/A	
HVAC	N/A	
Mercury	N/A	
Radiological	N/A	
Septic System	N/A	
Waste Water	N/A	
Stains & Corrosion	N/A	
Space	N/A	
Storage Tanks	N/A	
Solid Waste Disposal	N/A	
Migratory Hazards	N/A	
Radon	N/A	
Energetic Material*	Dependent on lessee	

N/A: Not a contaminant of concern during 1995 Safe Shutdown.
PCB: polychlorinated biphenyl
* PETN pentaerythritol; TATB triamino-trinitrobenzene; HMX cyclotetramethylenetetranitramine
RDX cyclotrimethylenetrinitramine; HNS hexanitrostibene

2.4 Radiological Characterization Summary for Building 63

An assessment of Building 63 was performed reviewing operational history and radiological survey information. During this review, it was noted that in 1996 an electronic device originating from R-building was found slightly contaminated during performance of safe shutdown surveys in Building 63. An occurrence report and background information on the event is included in Appendix M. Since the event, no elevated readings were found during performance of radiological surveys in the building. The extensive surveys included horizontal surfaces; floors; walls; heating, ventilation, and air conditioning (HVAC) coils/ductwork; building materials/wastes; and equipment. These confirmation surveys, along with the known building history as a non-nuclear quality testing facility, and several site assessments, which concluded that the building was not contaminated with radioactive materials, support the determination that the building is non-impacted from site radiological operations. Associated radiological survey documentation for the information summarized in the following table is contained in Appendix G.

TYPE	RSDS	LOCATION	SURVEY RESULTS (dpm/100 cm^2)	SURFACE CONTAMINATION GUIDELINES (dpm/100 cm^2) (Note 1)
Highest Alpha Smearable Activity	99-TF-1154	Horizontal Surfaces & Equipment	15.26	20
Highest Alpha Fixed Activity	Note 2	Misc.	< 100	100
Highest Beta Smearable Activity	99-TF-1150	Horizontal Surfaces & Equipment	14.49	1,000
Highest Beta Fixed Activity	Note 2	Misc.	< 5000	5,000
Highest Tritium Smearable Activity	99-TF-1153	Horizontal Surfaces & Equipment	153.54	10,000

Note 1: per DOE Order 5400.5
Note 2: All radiological surveys indicated < 100 dpm/100cm^2 alpha +and < 5000 dpm/100cm^2 beta
Note 3: RSDS : radiological survey data sheet

In accordance with "Generic Process for the Disposition of Buildings That Have Potential or Actual Radiological Contamination", the review team concluded that the building is radiologically non-impacted. No further radiological surveys are required.

2.5 Associated PRS Table for Building 63

PRSs closest to Building 63 and their current status are identified on Figure 2 and in the following table. Additional information is included in Section 4.2.3 and Appendix N.

PRS #	CERCLA or BLDG. RELATED	BINNING STATUS	COMMENTS
PRS 72	CERCLA	NFA 1/16/02	Area 13, Former staging of polonium from Dayton Unit IV.
NFA: No Further Assessment			

3.0 Site Description

3.1 Site/Vicinity Location and Characteristics

Building 63 is located at the DOE facility known as Mound Plant. Mound Plant is situated in the City of Miamisburg, Miami Township, Montgomery County, State of Ohio as shown in Appendix B.

The Mound facility was at one time situated on 306 acres of land and contained approximately 130 buildings with a total of approximately 1.4 million square feet of floor space (the number of buildings is constantly diminishing as buildings are decommissioned and either sold or demolished). The original 182-acre site, purchased by the Manhattan Engineer District in 1946, consisted of two hills and an intervening valley that runs approximately east and west. Building 63 is located in the lower valley of the plant site. The 124-acre tract acquired in 1981 is an undeveloped mixture of fields and woods that undulates and slopes downward to the west, away from the main site. This area was acquired to serve as a buffer and has been used as a staging area and parking area for contractors working on-site. See figures in Appendix C.

To the west lies a railroad line and the north south trending Miami-Erie Canal. The northern boundaries of the site abut the residential area of Miamisburg, Ohio. Mound Road marks the northern half of the eastern perimeter of the facility then veers east, away from the southern half of the eastern boundary. A public golf course (belonging to the City of Miamisburg), the Miamisburg Mound Memorial Park, old agricultural fields, residential lots, and vacant wooded lots border against the facility along Mound Road. Benner Road forms the southern property line of the Mound Plant, with agricultural fields and farms occupying the lands beyond.

3.2 Description of Structures, Roads, Other Improvements Related to Building 63

The subject property consists of the Mound Plant Building 63 footprint, the soil beneath, and a 15-foot wide perimeter around the building. Building 63 is a two-story, 17,468 square foot structure. It is a slab-on grade, concrete block structure, with a built-up membrane (coal tar)

roof. It was constructed in 1981, with an addition in 1984.

Building 63 is heated by steam and air conditioned by central chiller systems. Potable water and sanitary services are provided by the Mound Plant facility.

3.3 Current and Past Uses of Buildings In Proximity To Building 63

Building 63 is a part of the former Test Fire complex, which includes Buildings 2, 3, and 49. Buildings closest to Building 63 are identified in the table below. The location of these buildings relevant to Building 63 are shown on Figure 2 in Appendix C. Proximity of demolished buildings to Building 63 is shown in Appendix F.

Building	Building Area (square feet)	Past Use	Current Use
2	6,291	Destructive testing of energetic materials	Currently vacant
3	12,391	Destructive testing of energetic materials	Leased MMCIC Sub-leased to Perkin-Elmer
Magazine 6	90	Storage of energetic materials	Demolished
35	2,500	Non-destructive testing facility	Demolished
49	14,929	fabrication of energetic material components	Leased MMCIC Sub-leased to Perkin-Elmer
59	668	Neutron radiography	Demolished

4.0 Records Review

4.1 General/Historical CERCLA Information

In compliance with permit requirements under the Resource Conservation and Recovery Act (RCRA), the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), and the Clean Air Act (CAA), Mound Plant has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. Mound Plant is currently operating a hazardous waste storage facility under a RCRA Part B Permit dated October 18, 1996. Mound Plant also maintains a National Pollutant Discharge Elimination System (NPDES) surface water discharge permit with Facility I.D. number OH 009857. Permits for the open burning of wastes involving explosives and other fuels have been issued by the Regional Air Pollution Control Agency (RAPCA). Other operations that produce particulate or vaporous emissions are registered with RAPCA and OEPA. Mound Plant also submits annual Emergency and Hazardous Chemical Inventory forms to the Ohio Environmental Protection Agency (OEPA), pursuant to Superfund Amendments and Reauthorization Act (SARA), Title III, the Emergency Planning and Community Right-to-Know Act. The 2000 version of this

report indicated that no chemicals are stored in Building 63 in quantities above the regulatory thresholds.

The Mound Plant was identified as a contaminated site on the National Priority List under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Superfund) in 1989. The Mound Plant site was originally listed as a consequence of volatile organic compound (VOC) contamination in the western end of the lower valley area. The cleanup of the Mound Site was originally to be accomplished under the CERCLA mandated procedures for regulating Superfund Sites using the operable unit (OU) system to define and characterize cleanup areas. As the cleanup effort went forward, it became apparent that the Mound Site did not fit the profile for a cleanup strategy based on the operable units. The DOE, the United States Environmental Protection Agency (USEPA), and the OEPA designed a new decision making process for the cleanup of Mound. The new process is known formally as a "removal site evaluation process" and informally as the "Mound 2000 Process". The Mound 2000 Process system divided Mound into geographical parcels containing over 400 PRSs with approximately 200 concerned with potentially contaminated soils, and the balance with potential contamination in or associated primarily with building operations. For a more detailed description, refer to the *Work Plan for Environmental Restoration of the DOE Mound Site, the Mound 2000 Approach.*

4.2 Specific Record Sources

4.2.1 Occurrence Reports

A search of the occurrence reporting system revealed two reports:

- Cutting steel causes smoke alarm
- Discovery of Legacy Radioactive Contamination. On Jan 15, 1996, after the building was leased, radioactive contamination with a direct alpha reading of 1,005 dpm/100 cm^2, removable alpha of 1,069 dpm/100 cm^2, and 3,020 dpm/100 cm^2 of tritium was found on a Hewlett-Packard function generator. Gamma spectroscopy revealed the isotope to be plutonium-238. No other contamination was found in the building.

4.2.2 Spills and Releases

None.

4.2.3 Associated PRS Overview

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the Federal Facilities Agreement (FFA)/DOE Environmental Restoration (ER) Program, DOE and BWXTO have tabulated all the PRSs identified under the various regulatory programs in effect at the site. Of these 440 PRSs, PRS 72 is related to Building 63 due to proximity of location. A description

of PRS 72 excerpted from the Test Fire Valley Sampling and Analysis Plan, is included in Appendix N.

4.2.4 Sampling Data

4.2.4.1 Radiological Surveys

Survey data, summarized in Section 2.4 of this document, indicated no elevated radiological readings in the building(s). Supporting documentation is contained in Appendix G.

4.2.4.2 Soil Sampling Data

Soil sampling results within a 15-foot perimeter of Building 63 are depicted on a graphic and presented in a table in Appendix L. All data are below applicable screening levels except one result of Pb-210 of 1.857 pCi/g with an associated screening level of 1.8 pCi/g. This result was part of the PRS 72 further assessment sampling that was binned NFA in January 2002.

4.2.4.3 Chemical History/Removal

The building housed processes, which used lubricating oil and isopropyl alcohol in the fabrication of test equipment. The lessee's processes likely use similar chemicals.

4.2.4.4 Lead Paint

No objective data could be found or was generated during the walk-through assessment of Building 63 to indicate the presence of lead-based paint. Therefore, all such coatings were assumed to be potentially lead-containing, although the date of construction makes it unlikely that high concentrations of lead would exist. The observed paint coatings were found to be intact. The report documenting the walk-through is included in Appendix J.

4.2.4.5 Asbestos

Previous surveys did not positively identify any asbestos-containing materials. Previous surveys found no asbestos upon sampling and analysis of materials. Pipe insulation, ceiling tiles, and drywall were all sampled. A walk-through assessment of readily accessible areas of Building 63 indicated the presence of materials suspect for containing asbestos. The walk-through assessment identified floor tiles, fire safes, and furnace tar insulation located throughout the facility, which were assumed to contain asbestos. All observed suspect materials were seen to be intact. The report documenting the walk-through is included in Appendix I.

4.2.4.6 Radon

The results of a 1989-90 Mound Indoor Radon study, included in Appendix H, indicated an average radon concentration of 0.4 picoCuries/liter (pCi/l) in Building 63. The USEPA recommended standard for radon is 4.0 pCi/l.

4.3 Review of Building Prints

Building prints were reviewed and are included in Appendix D.

4.4 Aerial Photographs

Aerial photographs from 1949, 1983, 1994, and 1996 were reviewed and copies are found in Appendix E.

4.5 Interviews

Due to the building being leased, no interviews were conducted. The current Building Manager is Gary Weidenbach. No significant items other than the energetic materials testing performed in the building are known to exist.

Appendix A

General Listing of Acronyms

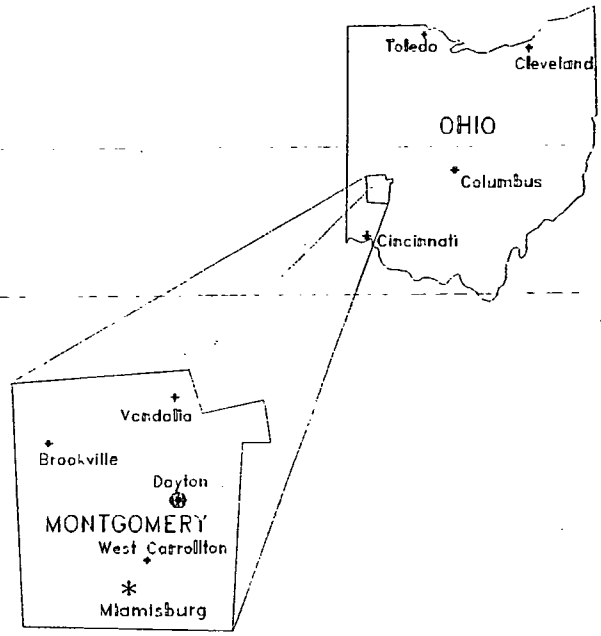
AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos Containing Materials
AL	Action Level
ASTM	American Society for Testing and Materials
BDP	Building Data Package
BUSTR	Bureau of Underground Storage Tank Regulations
BWXTO	BWXT of Ohio
CAA	Clean Air Act
CEG	Conditionally Exempt Generator
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
DPM	Disintegrations Per Minute
EMF	Electromagnetic Field
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration (Program)
ERDA	Energy Research and Development Administration
ERNS	Emergency Response Notification System
FFA	Federal Facility Agreement
FINDS	Facility Index System

FS	Feasibility Study
GSA	General Services Administration
HEPA	High Efficiency Particulate Air
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
M&O	Maintenance and Operations
MARSSIM	Multi-Agency Radiological Survey and Site Investigation Manual
MAT	Mound Applied Technologies
MCC	Monsanto Chemical Company
MEMP	Miamisburg Environmental Management Project
MMCIC	Miamisburg Mound Community Improvement Corporation
MRC	Monsanto Research Corporation
NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
ORPS	Occurrence Reporting and Processing System
OU	Operable Unit
PADS	PCB Activity Database
PCB	Polychlorinated Biphenyls
PRS	Potential Release Site
RAPCA	Regional Air Pollution Control Agency
RCRA	Resource Conservation and Recovery Act

REC	Recognized Environmental Condition
RI	Remedial Investigation
RSDS	Radiological Survey Data Sheet
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SQG	Small Quantity Generator
SWMU	Solid Waste Management Unit
TRIS	Toxic Chemical Release Inventory System
TSD	Treatment, Storage, & Disposal Facility
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

Appendix B

Map of Montgomery County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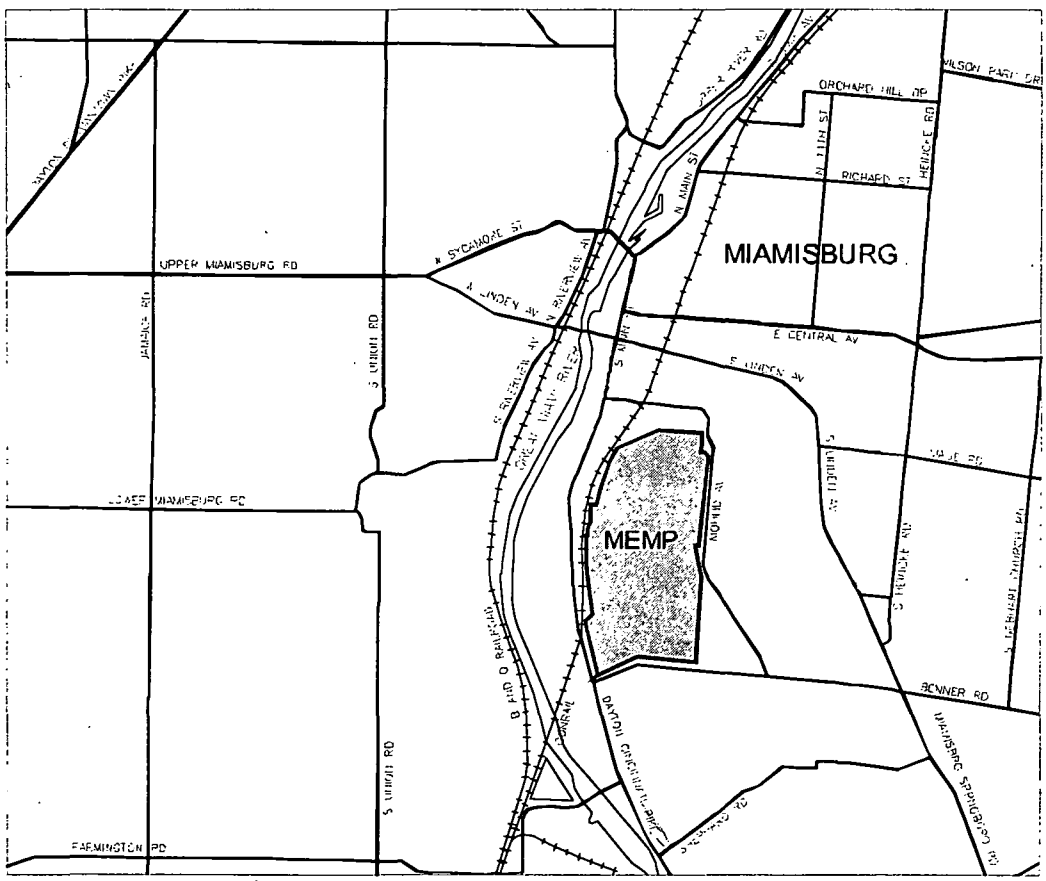
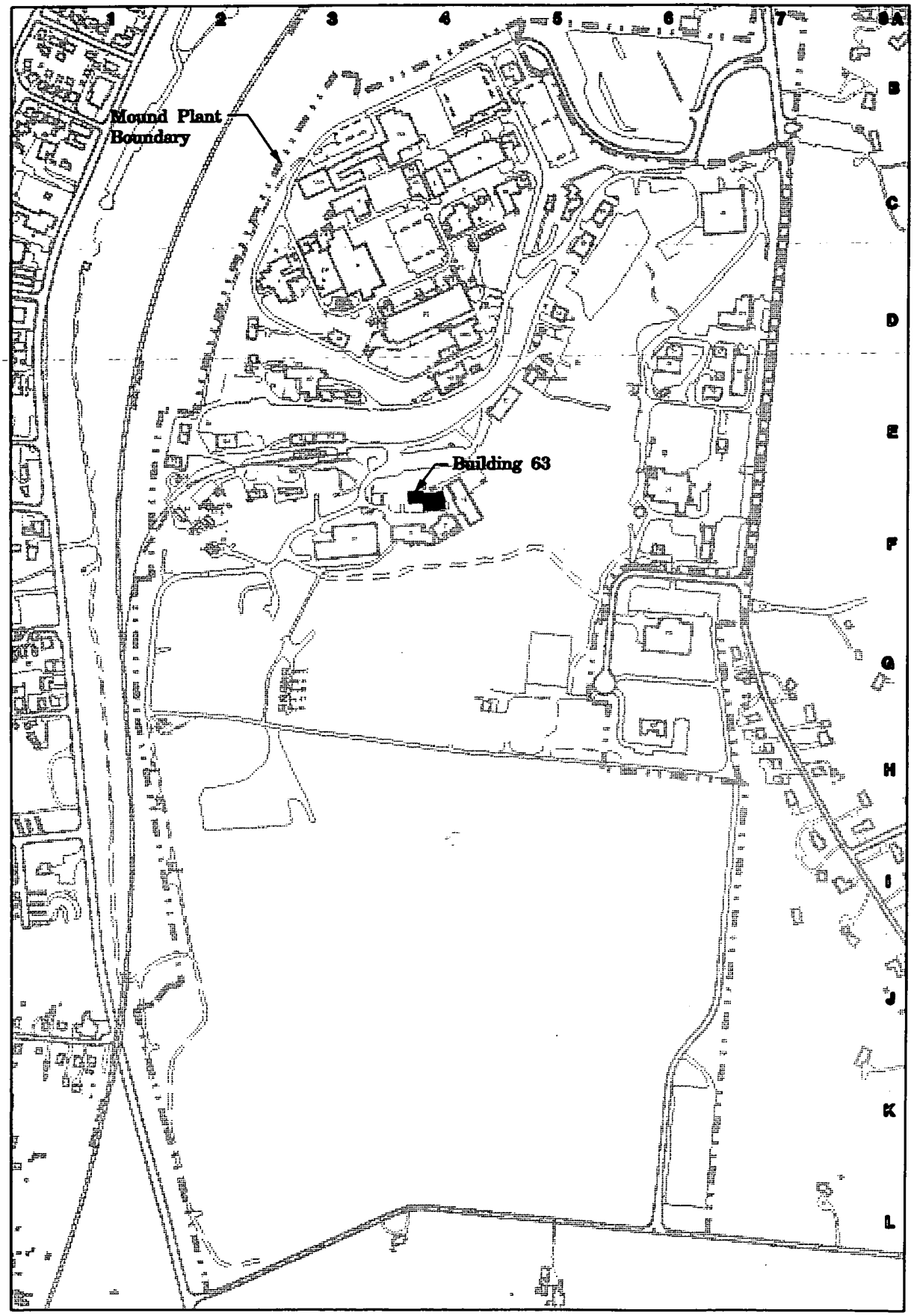
OHIO
Columbus
Cincinnati
Vandalia
Brookville
Dayton
MONTGOMERY
West Carrollton
Miamisburg


MIAMISBURG
MEMP
UPPER MIAMISBURG RD
LOWER MIAMISBURG RD
FARMINGTON RD
ORCHARD HILL DR
RICHARD ST
N MAIN ST
N SYCAMORE ST
E CENTRAL AV
BONNER RD
S UNION RD
JAMAICA RD
HEINCKE RD
MIAMISBURG SPRINGBORO RD

Appendix C

Figures



Legend

Structures
Paved roadway
Unpaved roadway
Railroad
Water course
Fence
Mound Plant boundary
Contour line

0 100 200 400 600 800 1000
Scale In Feet

DATE	REVISION	BY	CHKR	ENG	M
12/10/01	ISSUE FOR GENERAL USE	SSP			

MOUND
Environmental Restoration Geographic Information System

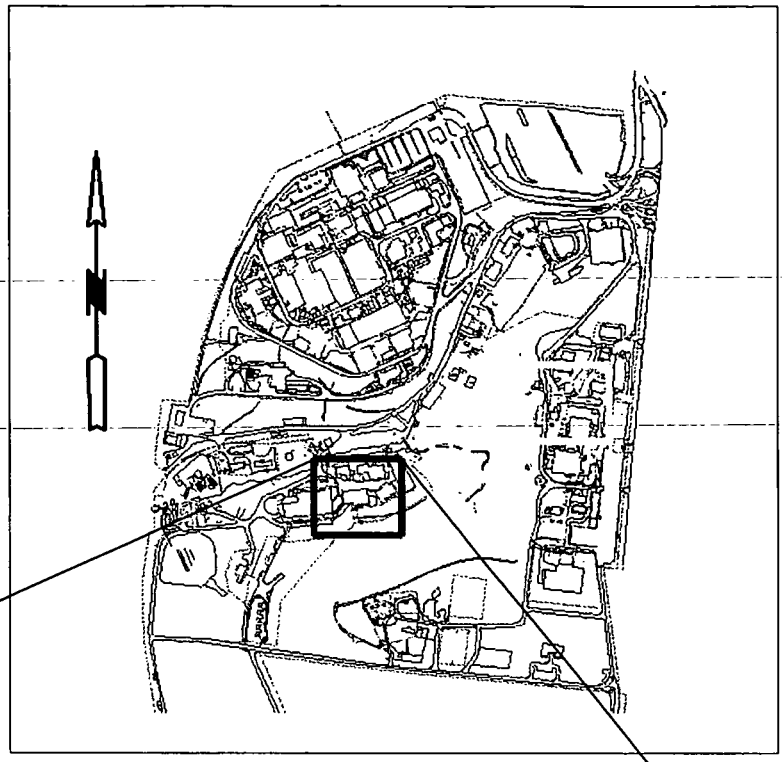
Figure 1
Location of Building 63

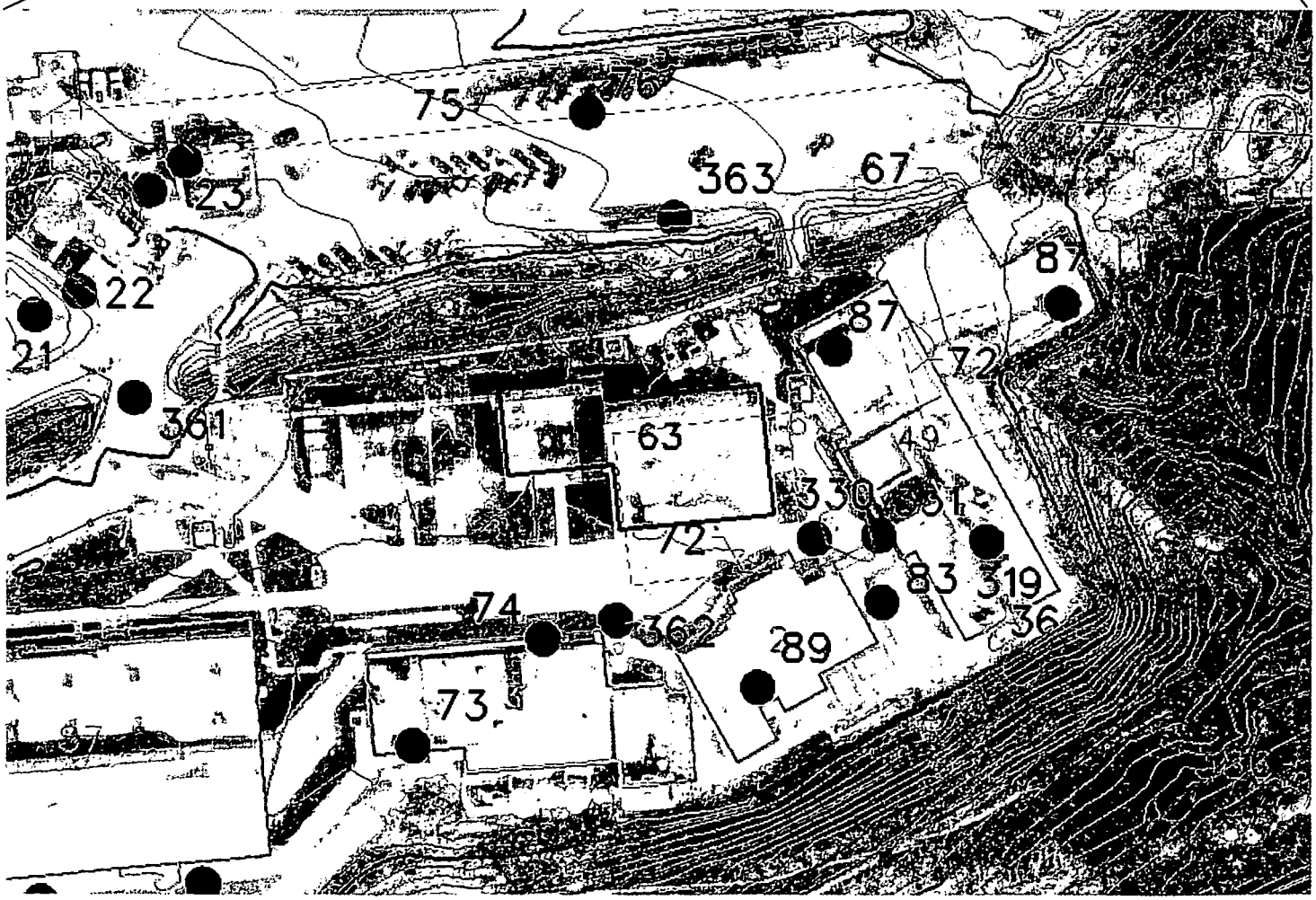
UNCLASSIFIED

gen_site_plan.dgn

Figure 2
Mound Plant
Building 63
Surveillance Facility

On the map below:
- Building number and location shown in black
- PRS locations and numbers shown in blue
- Surrounding buildings shown in tan
- Fencing shown in red
- Elevation contours shown in brown





MOUND SITE MAP

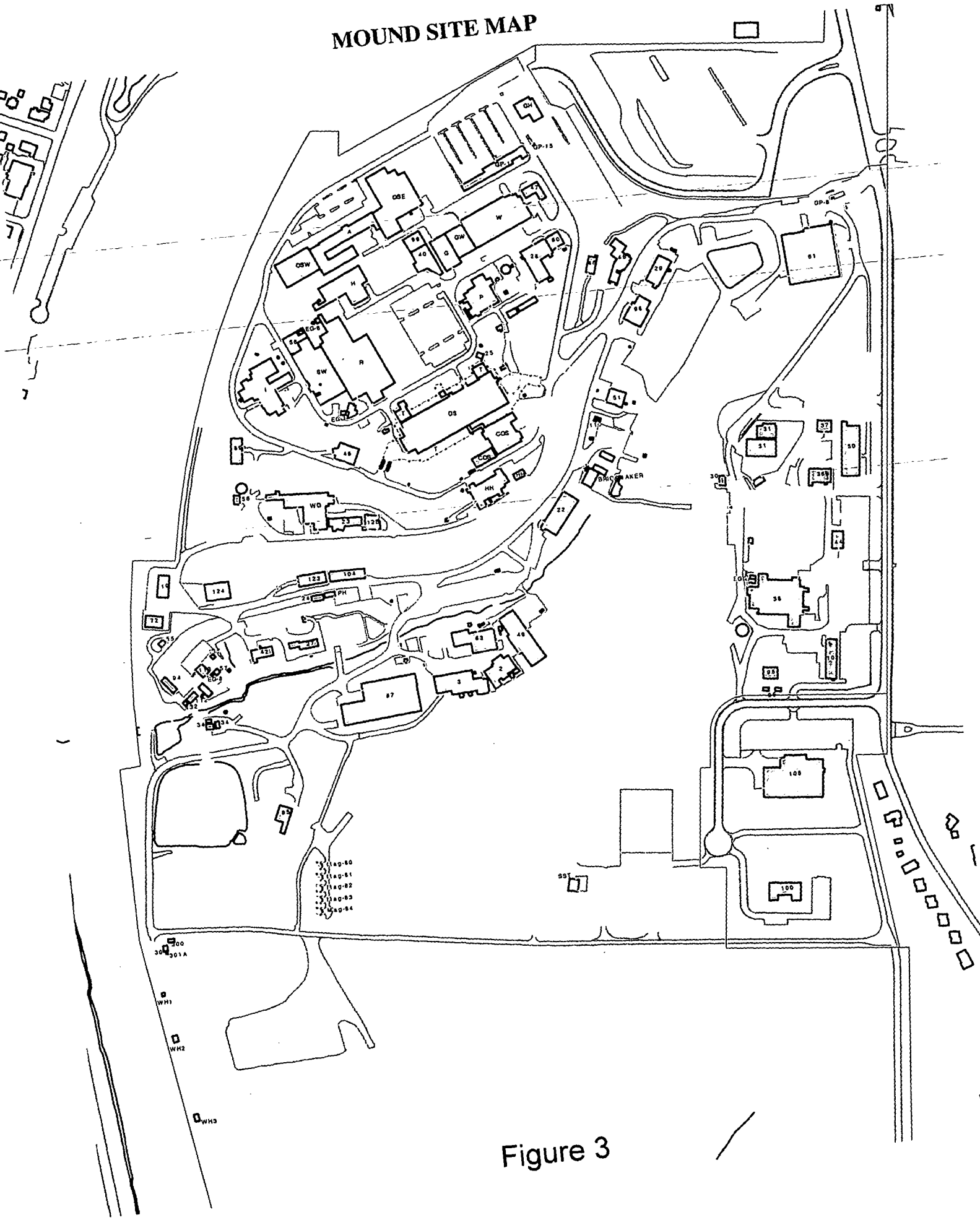


Figure 3

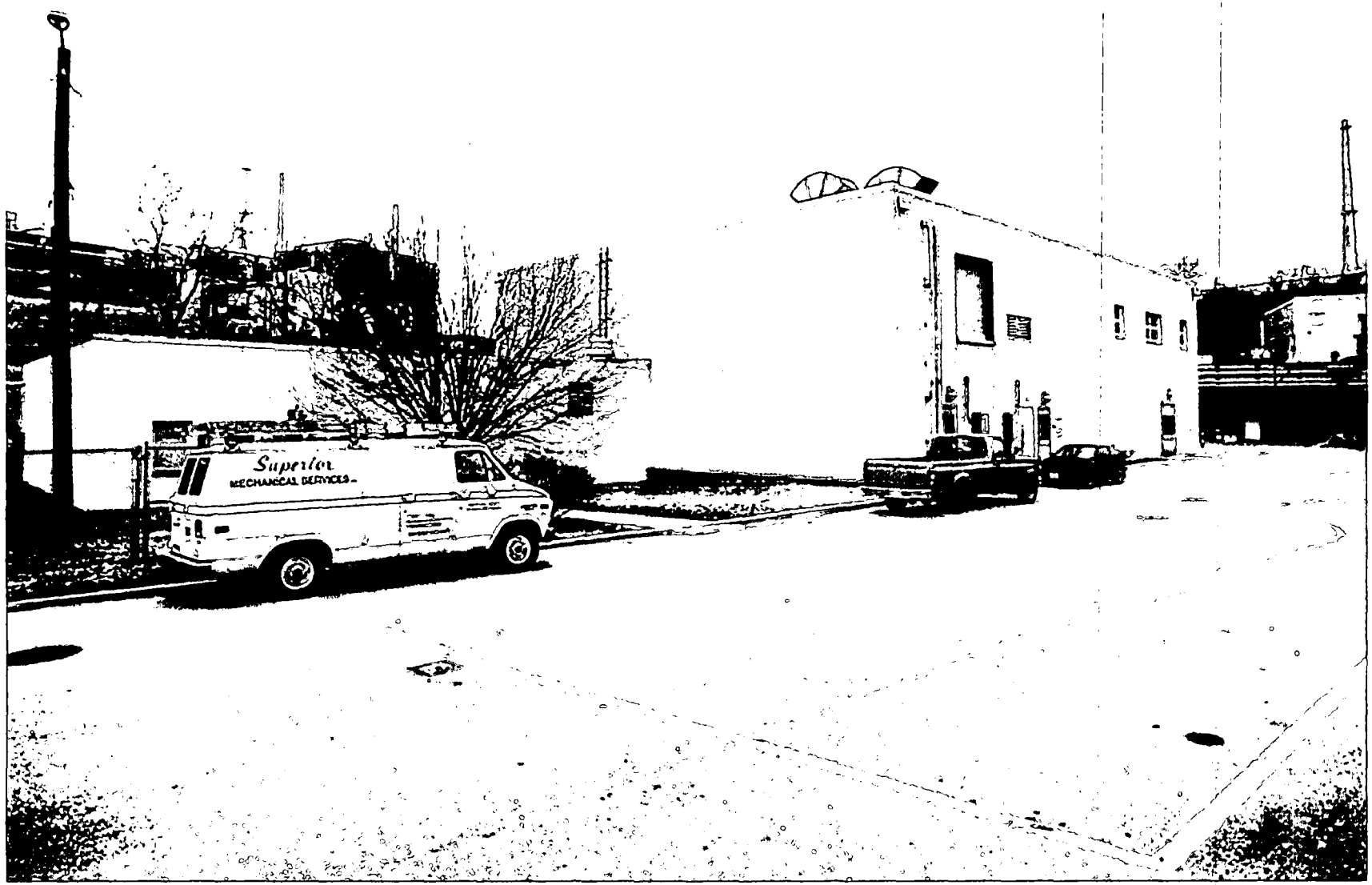
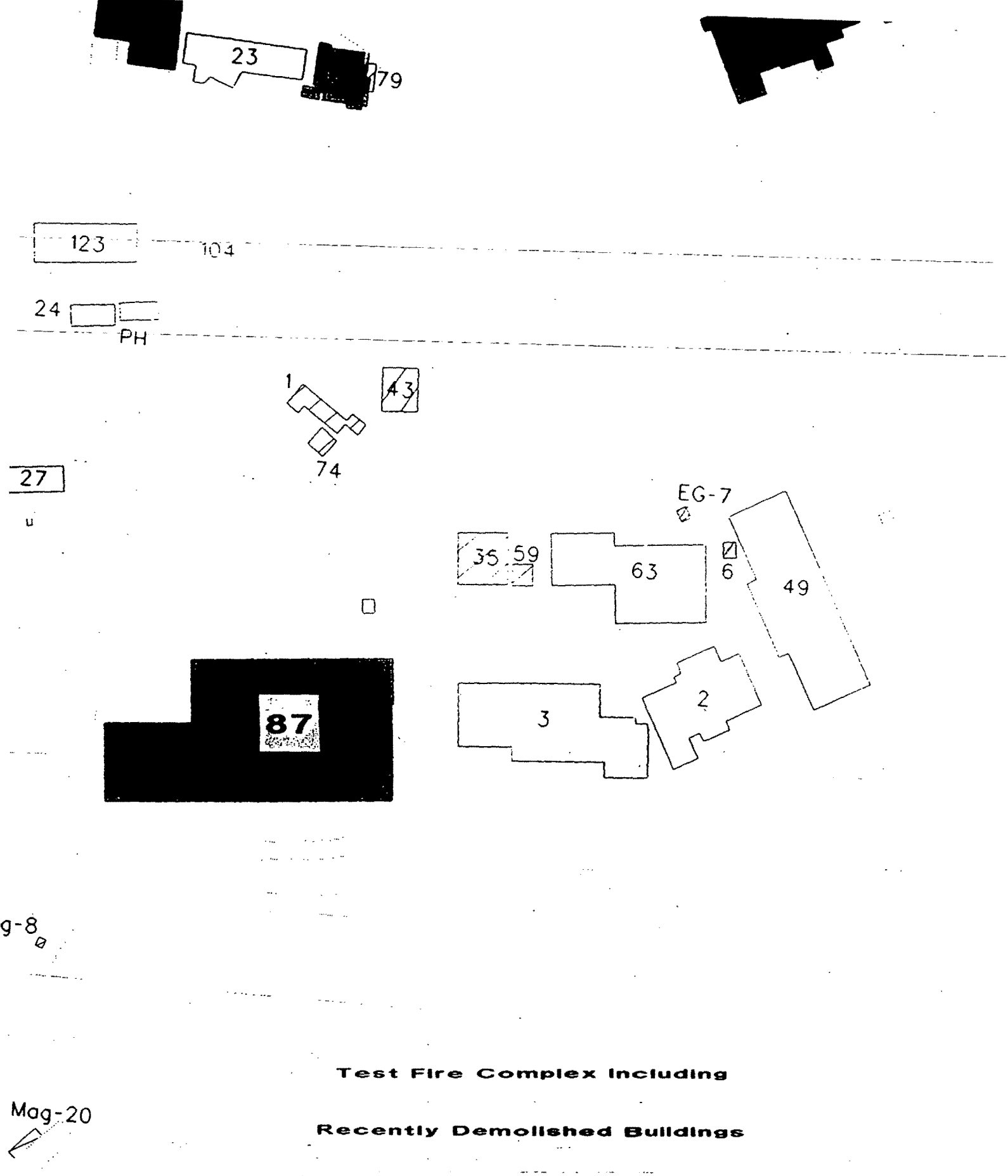


Figure 4



Test Fire Complex Including

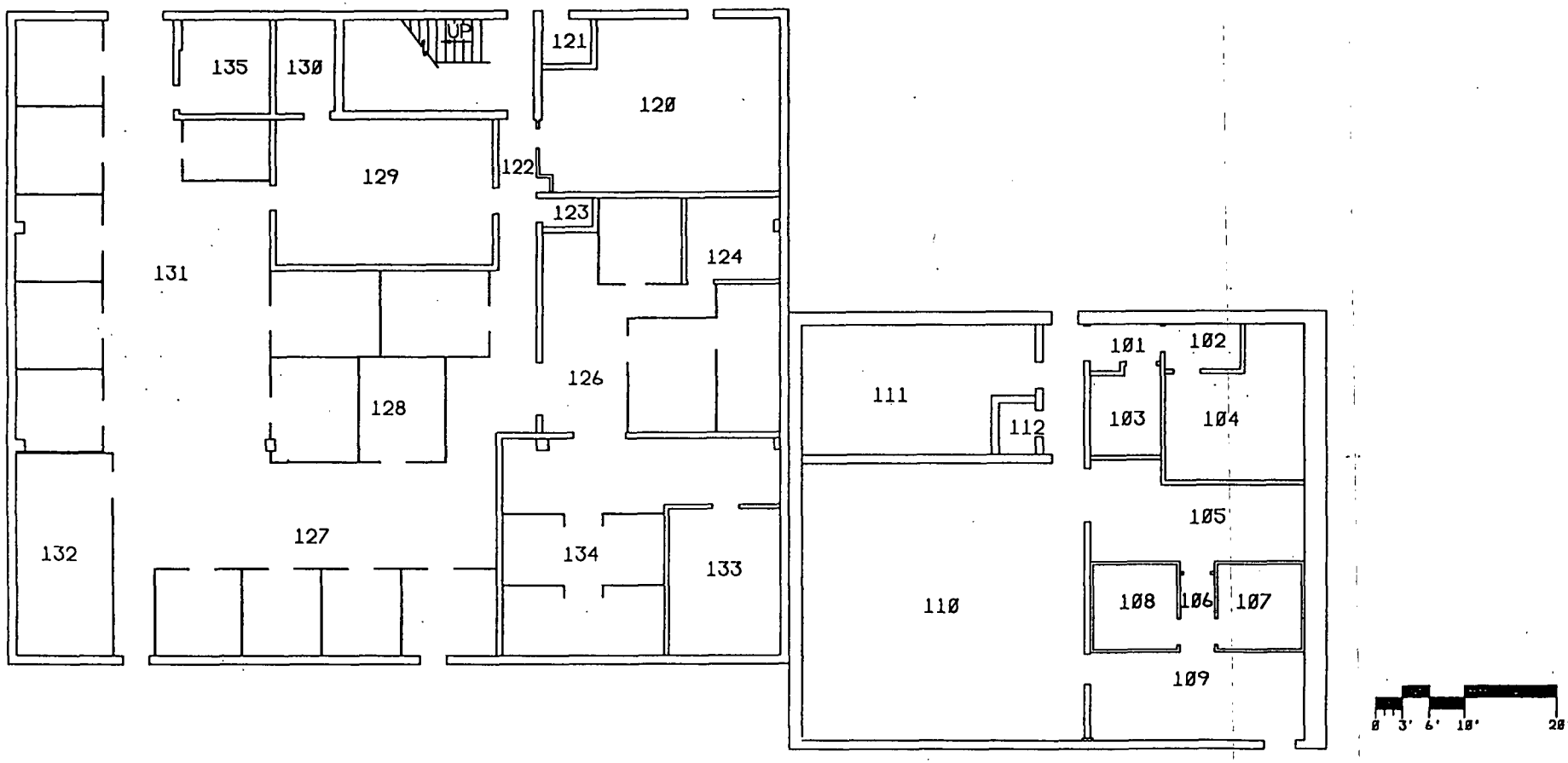
Recently Demolished Buildings

FIGURE 5

Appendix D

Building Drawings

ISS	DATE	REVISION	BY	CHKR	ENG	LPMEC	APVD	R
0	12/12/91	ASBUILT ISSUE	DCB				DVD	



BLDG #83
FIRST FLOOR
BLDG CODE:3083

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUESOC ___TESOC ___EMSOC
TECH. RESP. ___
BR. MGR. ___
TRUESOC ___
TESOC ___
EMSOC ___

DESIGN ENG	PROJ MGR
SPONS	ENG SUPV
LP & EC	PEER REV
ENG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	0	0				

PART CLASSIFICATION

TITLE: BLDG #63 FLOOR PLANS

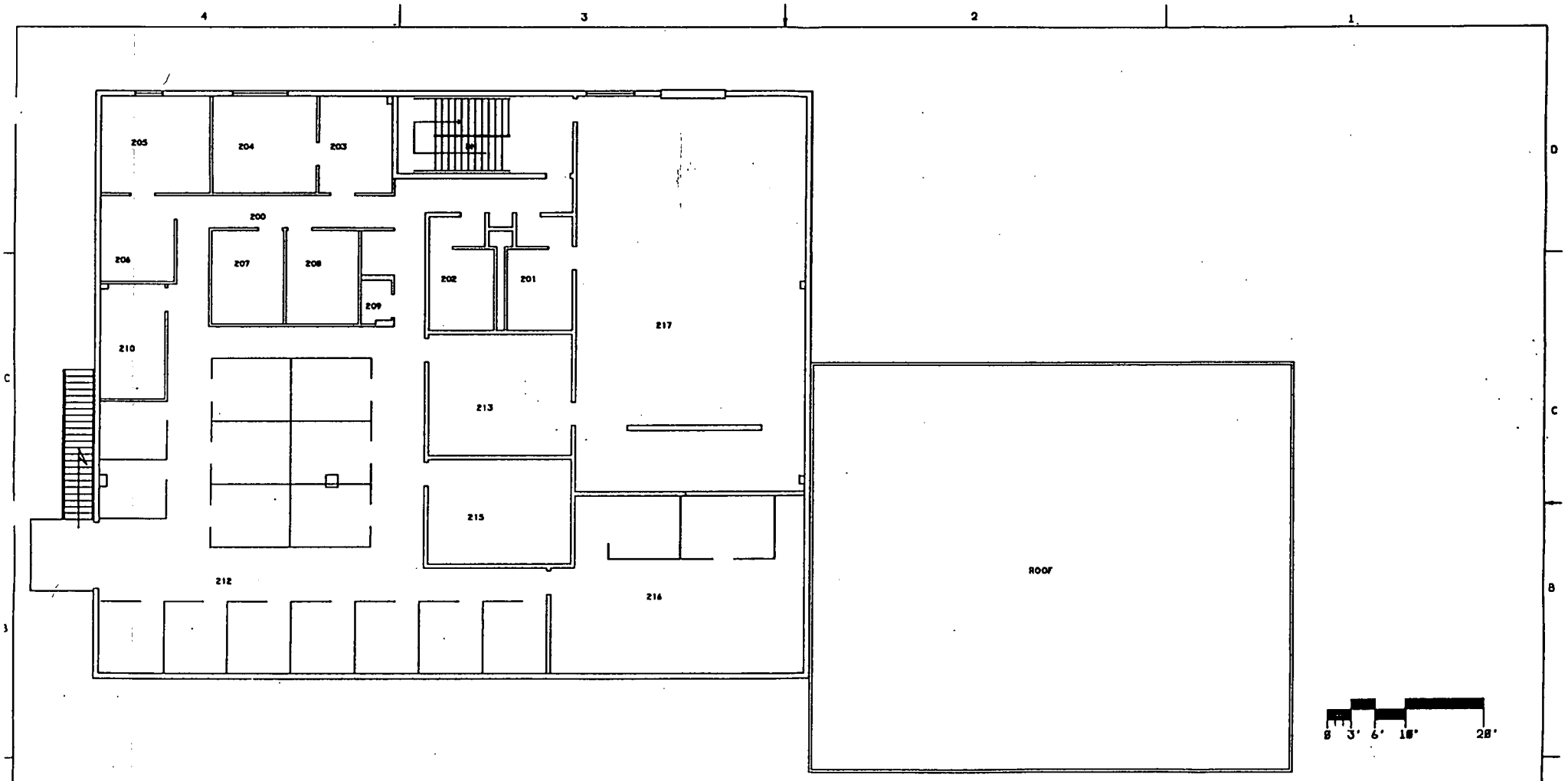
(U) TITLE CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED

SIZE: D | DRAWING NUMBER: FSD911269 | JOB NUMBER: 12335

DWG TYPE: GFP | FROM: BLDG #63 | CASE: 14065 | SCALE: AS NOTED | SHEET 1 OF 2

STATUS: MD-REL-12/12/91 | ORIGIN: MD-BR3-V3.0



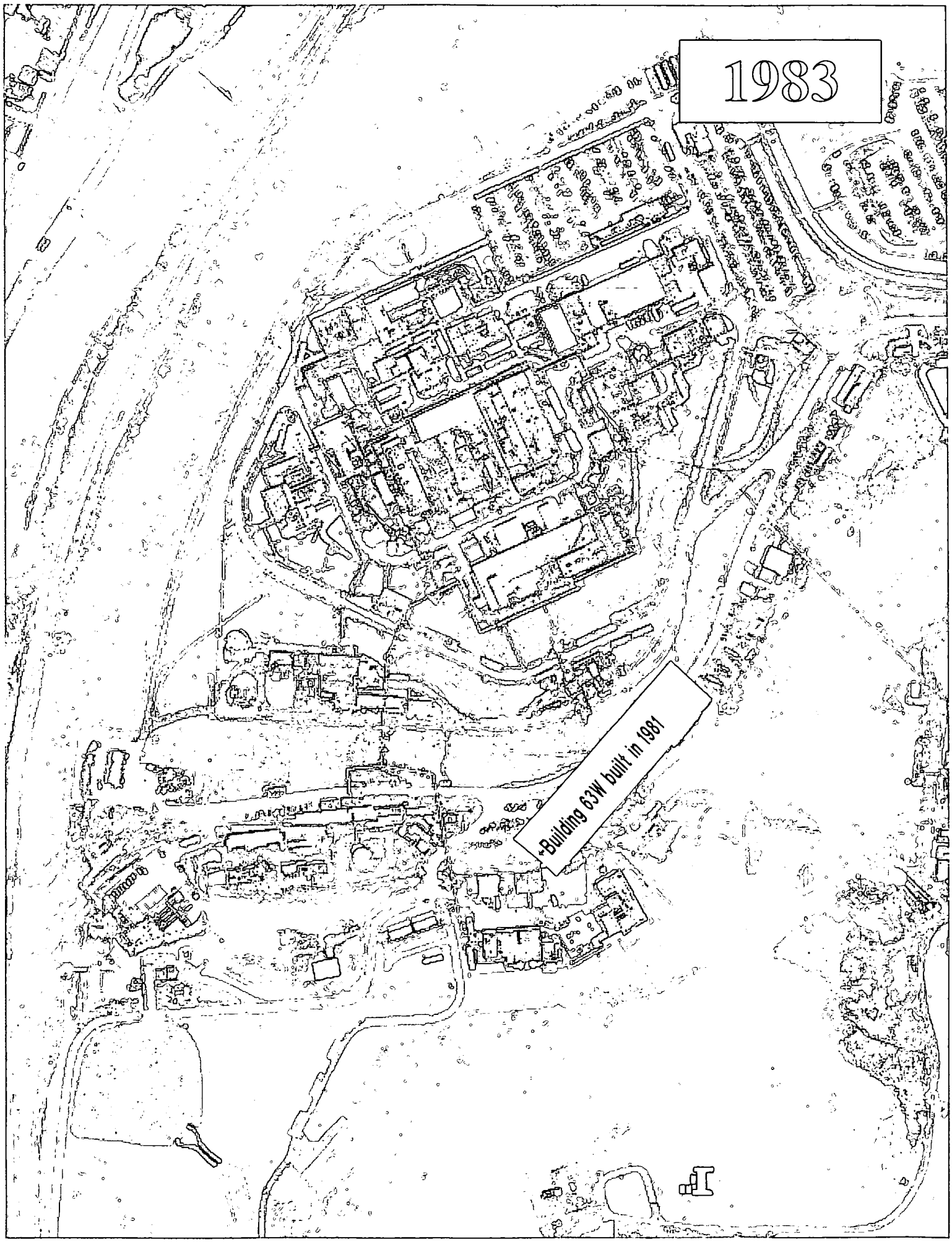
BLDG #83
SECOND FLOOR
BLDG CODE:3083

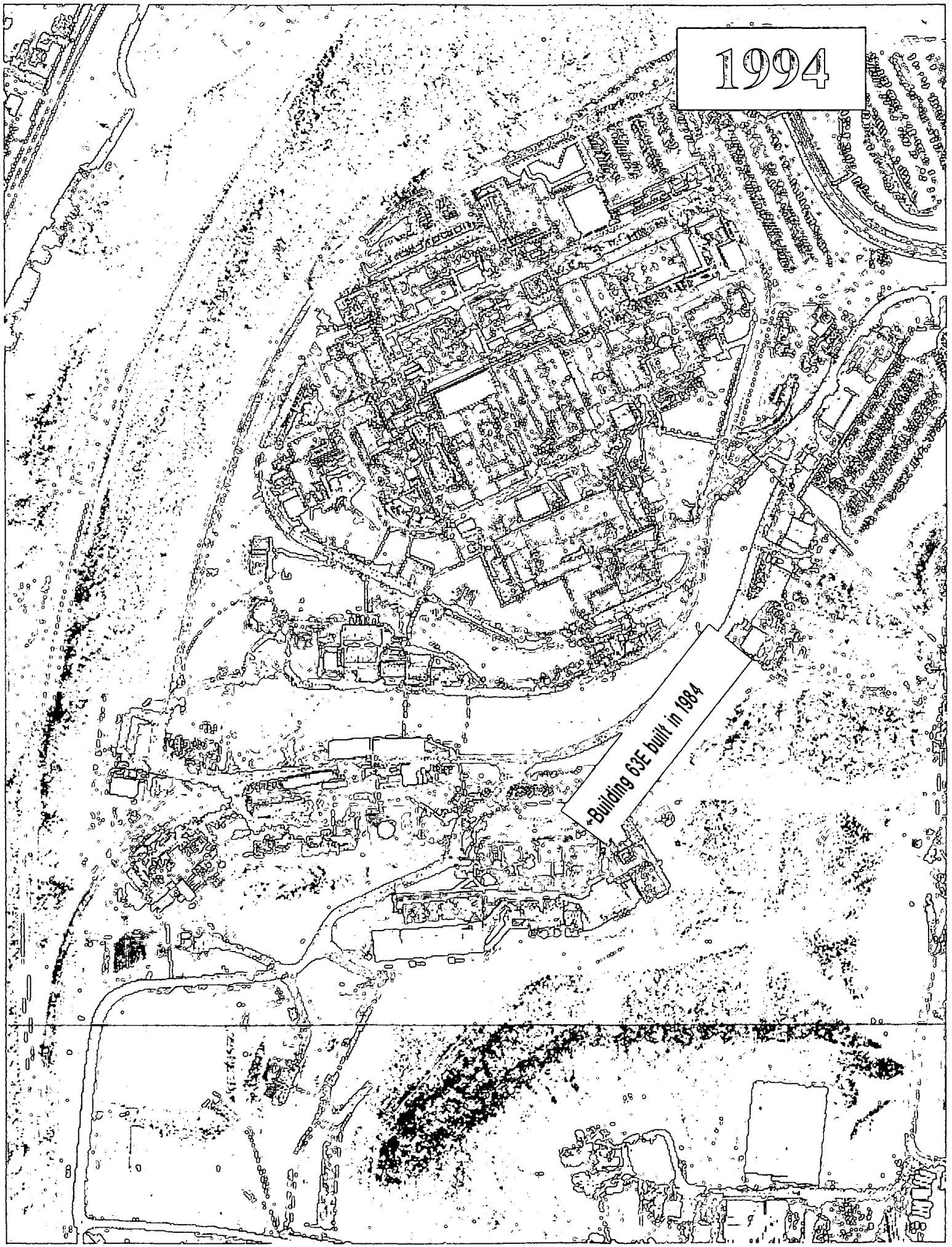
DRAWING NUMBER FSD911269	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE D	CODE 14865 / SCALE AS NOTED
	CODE 8 / SHEET 2
STATUS MD-REL-12/12/91	

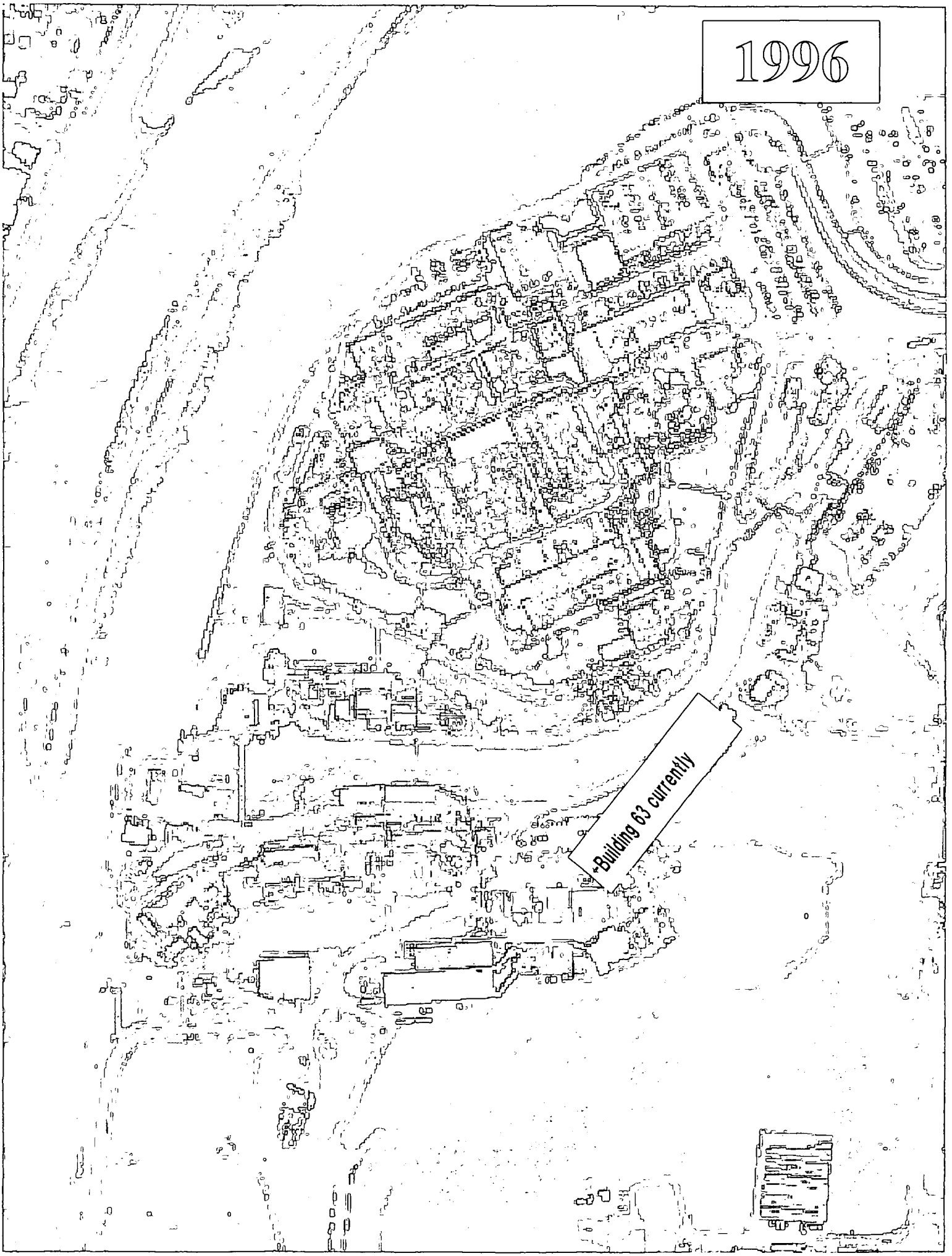
Appendix E

Aerial Photographs

1949
Building 63 not yet built


1983
←Building 63W built in 1981


1994
Building 63E built in 1984


1996
Building 63 currently

Appendix F

Environmental Appraisal Report of the Mound Plant (Excerpt)

9.81 BUILDING 63-E/63-W

9.81.1 Scope of Building 63-E/63-W Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

The appraisal team prepared to perform a walk-through of Building 63-E/63-W on the morning of January 29, 1996; however, it was confirmed by the building manager that the building had been leased to the City of Miamisburg. Therefore, an environmental appraisal was not conducted. No Building Manager's Questionnaire (BMQ) was available and the Environmental Appraisal Checklist (EAC) was not completed since the building was leased.

9.81.2 Description of Building 63-E/63-W

Building 63 is comprised of two structures connected together: Building 63-E, quality product testing laboratory, is a two-story, 13,400-square-foot, concrete block, slab-on-grade structure with a built-up membrane (coal tar) roof. This portion of the building contains quality product testing laboratories on the first floor and offices and lavatory facilities on the second. Building 63-W, an environmental storage and spin test facility, is a one-story, 3,100-square-foot, concrete block, slab-on-grade structure with a built-up membrane (coal tar) roof. This portion of the building contains offices, environmental storage chambers, a spin test facility and lavatory. The location is shown in Attachment 1 (9.81.4.1). The building is bounded by a parking lot to the north, Building 49 to the east, a roadway to the south, and Building 59 to the west. Both sections of the building are serviced by sanitary and storm water service lines, heating and air conditioning systems providing central steam heat and chilled water, a fire sprinkler water main, and electric service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

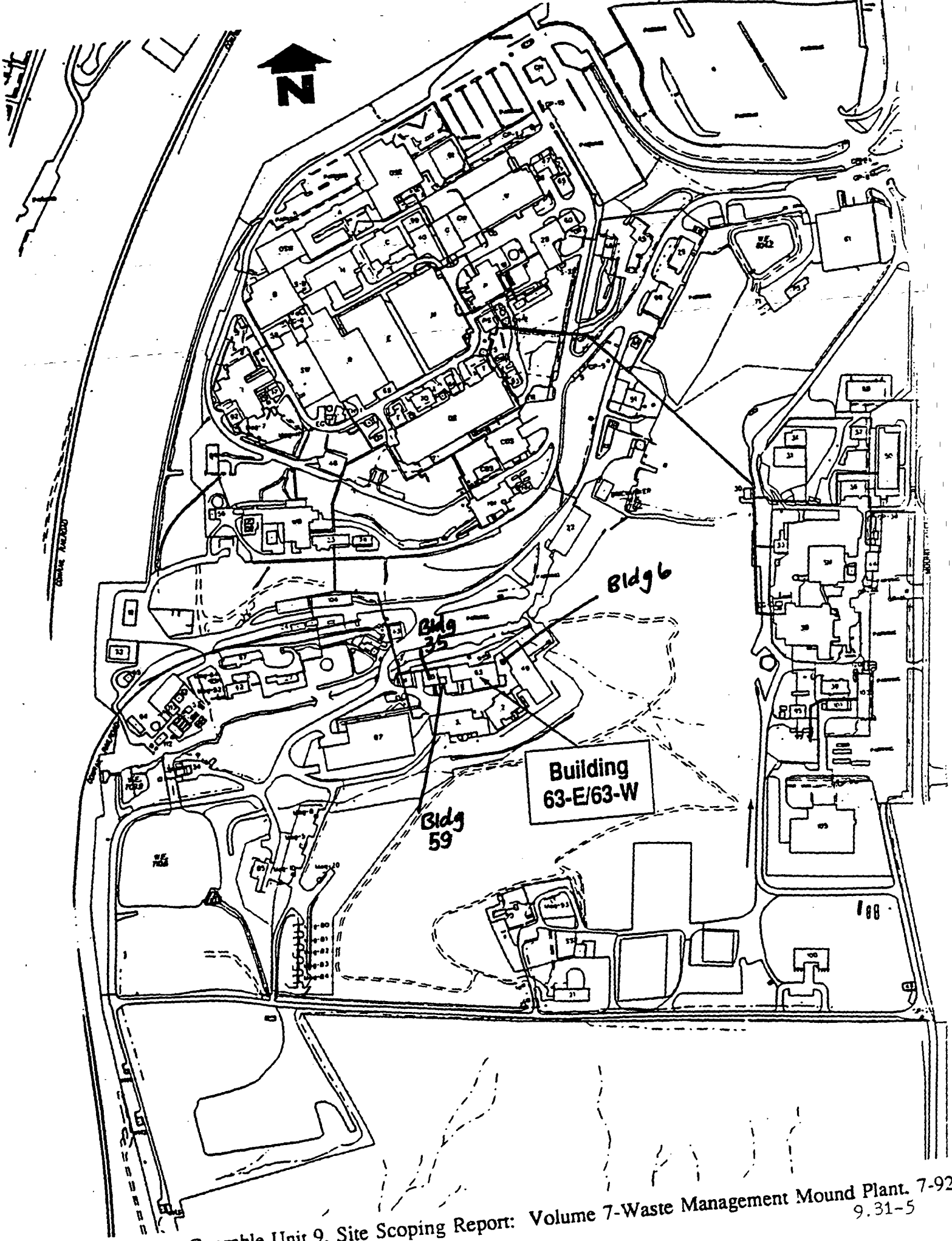
Building 63-E/63-W was constructed in 1981 (*Capital Assets Management Process, CAMP Report, FY96*). The building has been used for the same purposes since construction. Research and testing activities using energetic materials have occurred in the building. Research, development and testing activities using radioactive materials have not occurred. (*Mound Facility Physical Characterization*, 12-1-93).

9.81.3 Summary of Findings

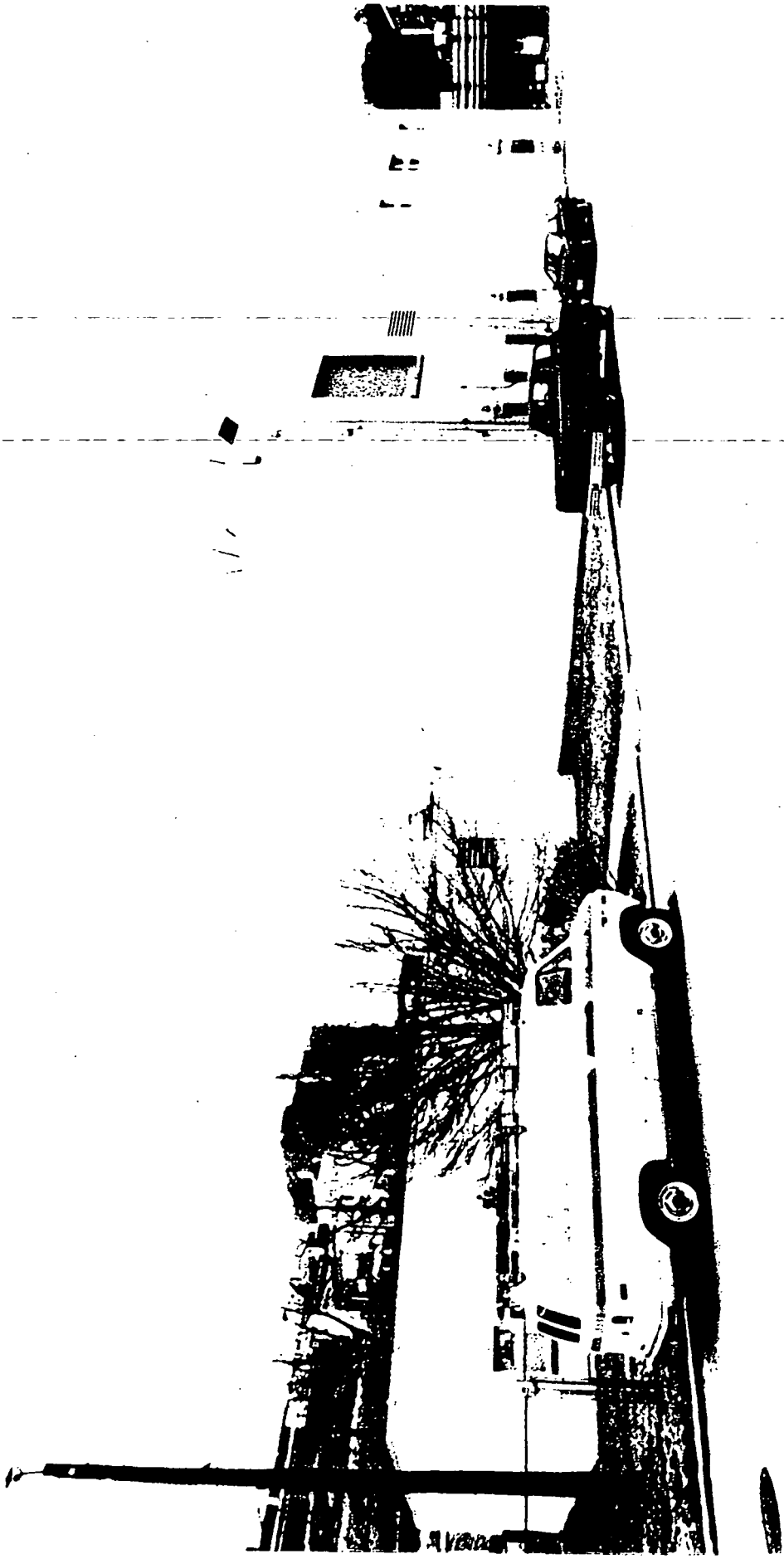
Building 63-E/63-W has undergone Safe Shutdown which includes removal of wastes and other materials plus equipment which cannot be released. A health physics safety determination and a liabilities assessment were made. An Environmental Site Assessment (ASTM E 1527-94 or ASTM E 1528-93) was not conducted. The building has been leased by the Department of Energy (DOE) to the City of Miamisburg which accepted the liabilities assessment. The General

Purpose Lease between the DOE and the City of Miamisburg requires the sub-lessee to obtain and comply with regulatory agency permits.

Photographs were taken to document the building. They are included as Attachment 2 (Section 9.81.4.2). Since the building has been leased, an EAC was not prepared and no further action was taken concerning this building.



SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant. 7-92



Mound Plant Building 63-E/63-W

Appendix G

Radiological Summary/Information

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) Building 63	SURVEY NO. 01-OSA-060
PURPOSE: Confirmatory Survey	RWP NO. N/A
	DATE: 10-10-01
	TIME: 13:10

MAP / DRAWING

COPY

1. Surveys performed using the guidance contained in "Generic Process for the Disposition of Buildings..."
2. Floor plans and direct measurements listed on pages 2 and 3.
3. Direct measurements using N.E. Electra are: $\alpha < 100$ dpm/100 cm^2, $\beta^- < 5000$ dpm/100 cm^2 unless otherwise noted. Direct measurements using Ludlum 2350 and 43-37 detector are listed on pages 5 and 6.
4. (Fxx) Denotes floor measurement locations

   (Dxx) Denotes floor drain measurement locations

   (Wxx) Denotes wall measurement locations
5. Large area wipes (> 1ft^2) taken in all rooms with direct measurements: $\alpha < 100$ dpm, $\beta^- < 5000$ dpm per swipe.

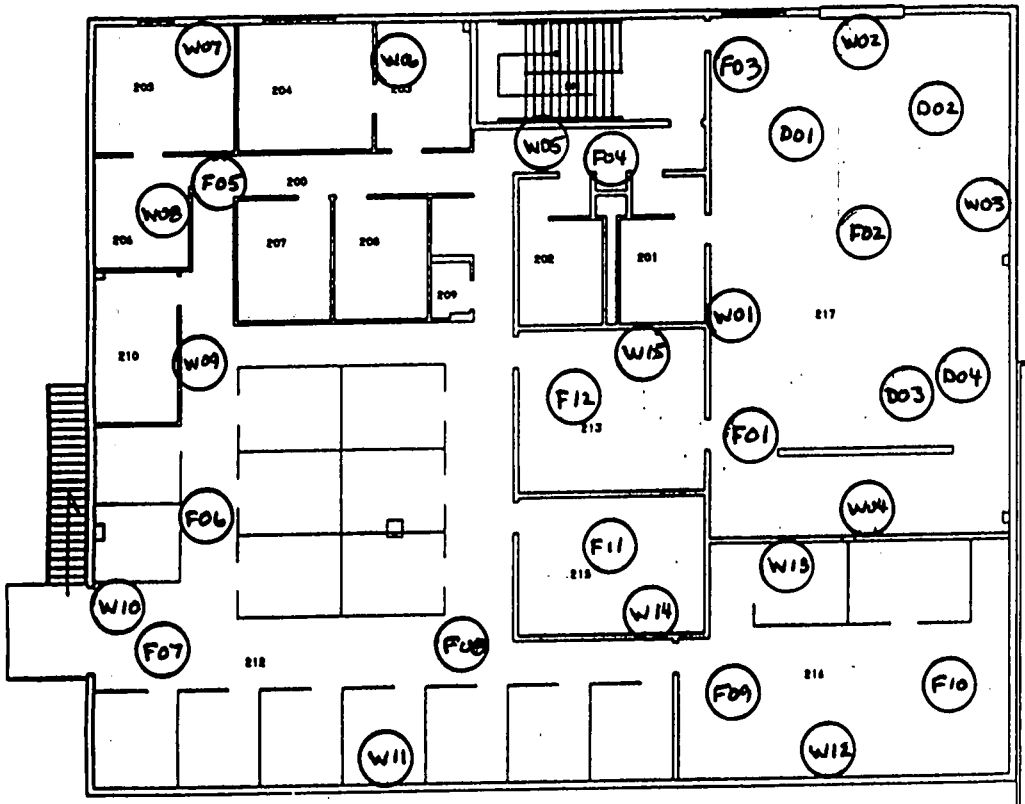
LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr ($\beta+\eta+\gamma$) extremity on contact
K = factor of 1000
— · — · · = radiological boundary
△# = mrem/hr neutron
□# = air sample number
(#) = swipe number
(#/α) or /β = direct contamination measurement in dpm/100 cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Ludlum 2350	5673/5676	11-10-01
N.E. Electra	5393/5407	7-17-02
		A
N		

[redacted]

HP# 6178 6196	Date: 10-16-01
HP#	Date: A
HP# 8405	Date: 10/18/01



(Fxx) DENOTES DIRECT MEASUREMENTS TAKEN ON FLOOR WITH LUDLUM 2350 w/43-37 DETECTOR USED

(Dxx) DENOTES DIRECT MEASUREMENTS TAKEN ON FLOOR DRAINS WITH LUDLUM 2350 w/43-37 DETECTOR USED

(Wxx) DENOTES DIRECT MEASUREMENTS ON WALL SURFACES NE ELECTRA USED: α <100dpm/100cm² β^- <5K dpm/100cm²

— LARGE AREA WIPES (>1ft²) TAKEN IN ALL ROOMS WITH DIRECT MEASUREMENTS α <100dpm, β^- <5Kdpm

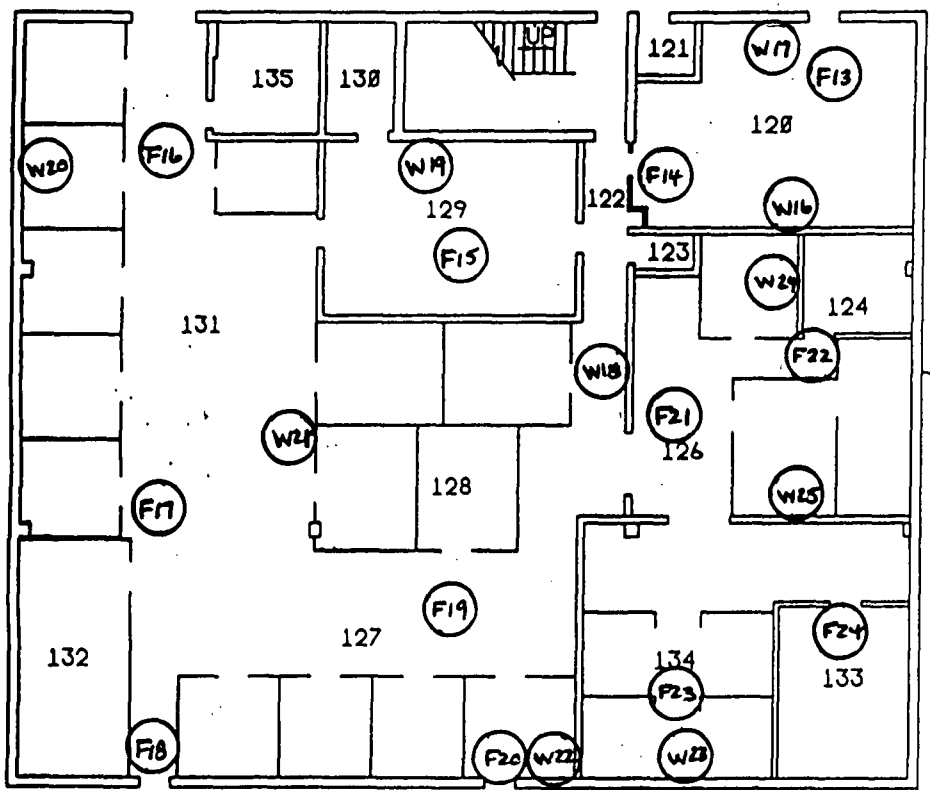
0 3' 6' 10' 20'

01-05A-060 DJA 2 of 6

BLDG #83
SECOND FLOOR
BLDG CODE:3083

DRAWING NUMBER FSD911269	LOG NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE D	CODE 14865 SCALE AS NOTED
	SHEET 2

ISS	DATE	REVISION	BY	CHKD	ENG	LAB	APVD	R
0	12/12/91	ASBUILT ISSUE	DCB				DVD	

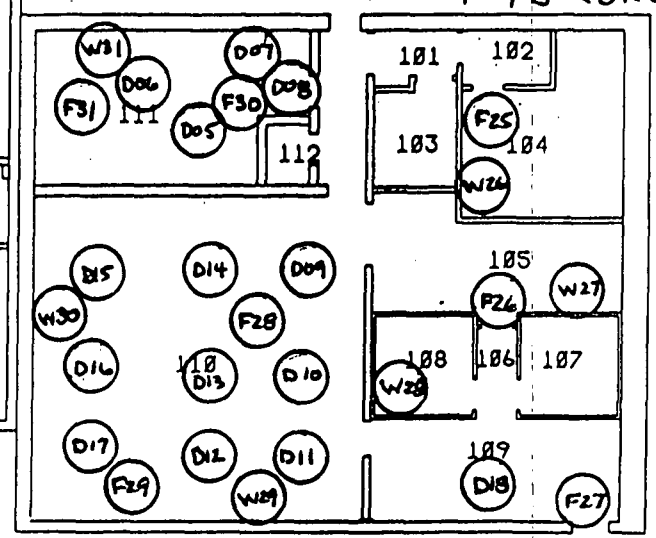


(Fxx) DENOTES DIRECT MEASUREMENTS TAKEN ON FLOOR WITH LUDLUM 2350 W/43-37 DETECTOR USED

(Dxx) DENOTES DIRECT MEASUREMENTS TAKEN ON FLOOR DRAINS WITH LUDLUM 2350 W/43-37 DETECTOR USED

(Wxx) DENOTES DIRECT MEASUREMENTS ON WALLS SURFACES NE ELECTRA USED $\alpha < 100dpm/100cm^2$ $\beta^- < 5Kdpm/100cm^2$

— LARGE AREA WIPES ($>1ft^2$) TAKEN IN ALL ROOMS WITH DIRECT MEASUREMENTS $\alpha < 100dpm/\beta^- < 5Kdpm$



0 3' 6' 10' 20'

01-OSA-060 DGH 3 of 6

BLDG #63
FIRST FLOOR
BLDG CODE:3063

SHEET	1	2	3	4	5	6	TITLE (U) TITLE CLASSIFICATION
ISSUE	0	0					BLDG #63 FLOOR PLANS
PART CLASSIFICATION							
DRAWING CLASSIFICATION							UNCLASSIFIED
SIZE	D	DRAWING NUMBER					FSD911269
DWG TYPE	GFP	FROM	BLDG #63	CASE	14865	SCALE AS NOTED	SHEET 1 OF 2
SCALE	HO-DFT	12/12/91					CRITICAL HO-BR3-V3.0

APPROVALS: DATE:
SAFETY CONVEYANCE REQUIRED:

CONTAMINATION PROBE INTEGRATED COUNT MDA

<SELECT> Probe Type		584	Model 43-37 cm2	Active Probe Area
<ENTER> Isotopic Efficiency Listed on Probe	Ei		c/d	Instrument Efficiency (c/d-on Probe)
<SELECT> Contamination Type (Alpha Or Beta)	Es		0.5	Surface Efficiency (1 for beta/0.5 for alpha)
	E	0.083		Total Efficiency (CALCULATED =Ei * Es)
<ENTER> Background Count Rate	Rb		CPM	Background Count Rate
<ENTER> Background count time (minutes)	Tb		min	

Enter the above information in the 'gray areas'. Then adjust sample intergrated count time to obtain desired MDA.

Sample Integrated Count Time (sec.)			sec.
Sample Count Time (minutes) (Tsb)		0.30	min
*	MDA	50	dpm/100 cm2

Minimum Activity Detected Per Probe Area (dpm/Probe)

294

Performed by: [redacted]

HP#: 7707

Date: 10/10/01

* MDA Equation Source: NUREG 1507, Eq. 3-11 (Strom & Stansbury 1992), where K = E*A/100

01-OSA-060 DA 4 of 6

BLDG 63 M-2350 SURVEY

RSDS# 01-05A-060 RCT: 29A RCT: MBK

LOCATION	2350#	RCT ID	PROBE	DET #	ITEM #	DATE	TIME	CNTS	CT TIME	dpm/100cm2
SCRBKG	5673	7707	5676	3	0	10/10/01	7:40	27	300	10
SCRCHECK	5673	7707	5676	3	1	10/10/01	7:42	2248	60	4325
SCRCHECK	5673	7707	5676	3	2	10/10/01	7:44	2227	60	4285
SCRCHECK	5673	7707	5676	3	3	10/10/01	7:45	2258	60	4344
SCRCHECK	5673	7707	5676	3	4	10/10/01	7:47	2281	60	4389
SCRCHECK	5673	7707	5676	3	5	10/10/01	7:48	2265	60	4358
SCRCHECK	5673	7707	5676	3	6	10/10/01	7:50	2184	60	4202
BLD63D01	5673	7707	5676	3	80	10/10/01	13:11	6	18	38
BLD63D02	5673	7707	5676	3	81	10/10/01	13:12	1	18	6
BLD63D03	5673	7707	5676	3	82	10/10/01	13:13	10	18	64
BLD63D04	5673	7707	5676	3	83	10/10/01	13:14	5	18	32
BLD63D05	5673	7707	5676	3	114	10/10/01	14:03	5	18	32
BLD63D06	5673	7707	5676	3	115	10/10/01	14:03	9	18	58
BLD63D07	5673	7707	5676	3	116	10/10/01	14:04	7	18	45
BLD63D08	5673	7707	5676	3	117	10/10/01	14:05	7	18	45
BLD63D09	5673	7707	5676	3	118	10/10/01	14:06	4	18	26
BLD63D10	5673	7707	5676	3	119	10/10/01	14:07	7	18	45
BLD63D11	5673	7707	5676	3	120	10/10/01	14:08	6	18	38
BLD63D12	5673	7707	5676	3	121	10/10/01	14:09	8	18	51
BLD63D13	5673	7707	5676	3	124	10/10/01	14:23	12	18	77
BLD63D14	5673	7707	5676	3	125	10/10/01	14:23	10	18	64
BLD63D15	5673	7707	5676	3	126	10/10/01	14:24	8	18	51
BLD63D16	5673	7707	5676	3	127	10/10/01	14:25	12	18	77
BLD63D17	5673	7707	5676	3	128	10/10/01	14:26	8	18	51
BLD63D18	5673	7707	5676	3	129	10/10/01	14:28	4	18	26
BLD63F01	5673	7707	5676	3	84	10/10/01	13:16	2	18	13
BLD63F02	5673	7707	5676	3	85	10/10/01	13:16	3	18	19
BLD63F03	5673	7707	5676	3	86	10/10/01	13:17	3	18	19
BLD63F04	5673	7707	5676	3	87	10/10/01	13:19	2	18	13
BLD63F05	5673	7707	5676	3	88	10/10/01	13:20	3	18	19
BLD63F06	5673	7707	5676	3	89	10/10/01	13:21	5	18	32
BLD63F07	5673	7707	5676	3	90	10/10/01	13:23	3	18	19
BLD63F08	5673	7707	5676	3	91	10/10/01	13:25	5	18	32
BLD63F09	5673	7707	5676	3	92	10/10/01	13:27	7	18	45
BLD63F10	5673	7707	5676	3	93	10/10/01	13:28	6	18	38
BLD63F11	5673	7707	5676	3	94	10/10/01	13:29	6	18	38
BLD63F12	5673	7707	5676	3	95	10/10/01	13:31	4	18	26
BLD63F13	5673	7707	5676	3	96	10/10/01	13:36	7	18	45
BLD63F14	5673	7707	5676	3	97	10/10/01	13:37	4	18	26

BLDG 63 M-2350 SURVEY

RSDS#01-OSA-060 RCT: DJH RCT: MB

LOCATION	2350#	RCT ID	PROBE	DET #	ITEM #	DATE	TIME	CNTS	CT TIME	dpm/100cm2
BLD63F15	5673	7707	5676	3	98	10/10/01	13:39	9	18	58
BLD63F16	5673	7707	5676	3	99	10/10/01	13:40	0	18	0
BLD63F17	5673	7707	5676	3	100	10/10/01	13:41	2	18	13
BLD63F18	5673	7707	5676	3	101	10/10/01	13:43	4	18	26
BLD63F19	5673	7707	5676	3	102	10/10/01	13:44	3	18	19
BLD63F20	5673	7707	5676	3	103	10/10/01	13:45	4	18	26
BLD63F21	5673	7707	5676	3	104	10/10/01	13:47	4	18	26
BLD63F22	5673	7707	5676	3	105	10/10/01	13:48	4	18	26
BLD63F23	5673	7707	5676	3	106	10/10/01	13:49	10	18	64
BLD63F24	5673	7707	5676	3	107	10/10/01	13:51	4	18	26
BLD63F25	5673	7707	5676	3	108	10/10/01	13:53	9	18	58
BLD63F26	5673	7707	5676	3	109	10/10/01	13:55	8	18	51
BLD63F27	5673	7707	5676	3	110	10/10/01	13:55	12	18	77
BLD63F28	5673	7707	5676	3	111	10/10/01	13:58	6	18	38
BLD63F30	5673	7707	5676	3	112	10/10/01	14:00	5	18	32
BLD63F31	5673	7707	5676	3	113	10/10/01	14:01	6	18	38

RADIOLOGICAL SURVEY DATA SHEET

P2 3015(30)

LOCATION: (BLDG./AREA/ROOM) Building 63 West	SURVEY NO. 99-TF-583
PURPOSE: Characterization of items removed from building as per agreement with state	RWP NO. N/A
	DATE: 6-3-99
	TIME: 1600

MAP/DRAWING

Direct readings taken at or near wipe locations with NE Electra

α <100 dpm/100cm²

β- <5k dpm/100cm²

LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5467/5354	10-12-99
	A	
	N	

Completed by: (Signature) [redacted]	HP# 7839	Date: 6-3-99
Completed by: (Print Name) [redacted]		
[redacted]	HP# 3268	Date: 6/7/99
[redacted]		
[redacted]	HP# 604	Date: 6/10/99
[redacted]		

ML-9620 (2-98)

Survey No. 99-YF-583

2 of 5

Page ___ of ___

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	attached		Papers
2	for	wipe		Books
3		results		Files
4				Books
5				Paper
6				Trash can out
7				Trash can in
8				Drum out
9				Drum in
10				Box out
11				Box in
12				Pipe
13				Pipe
14				Pump
15				Pump
16				Insulation
17				Insulation
18				Duct work out
19				Duct work out
20				Ductwork in
21				Elec. box
22				Elec. box
23				Pipe in
24				Pipe out
25				Cooler out
26				Cooler in
27				Pipes out
28				Pipes out
29				Pipes in
30				Pipes in
			A	
		N		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: All wipes < 1000 dpm per NE Electra (field count)

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

3 of 5

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR010
Batch Ended: 6/7/99 11:01
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-583 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A2	1	0.00	2.10	<MDA	0.00	1.46	<MDA
A3	2	0.00	2.05	<MDA	0.49	1.78	<MDA
A4	3	0.00	2.21	<MDA	0.00	1.57	<MDA
B1	4	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	5	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	6	1.43	2.01	<MDA	0.00	1.54	<MDA
B4	7	0.00	1.95	<MDA	4.58	3.00	<AL
C1	8	0.00	2.00	<MDA	1.59	2.29	<MDA
C2	9	0.00	1.98	<MDA	0.00	1.40	<MDA
C3	10	0.00	2.14	<MDA	0.00	1.30	<MDA
D1	11	0.00	1.99	<MDA	3.25	2.77	<AL
D2	12	0.00	2.05	<MDA	4.43	3.08	<AL
D3	13	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	14	1.73	2.23	<MDA	0.00	1.42	<MDA
A2	15	0.00	2.10	<MDA	0.00	1.46	<MDA
A3	16	0.00	2.04	<MDA	0.00	1.33	<MDA
A4	17	0.00	2.21	<MDA	0.00	1.57	<MDA
B1	18	1.46	2.05	<MDA	0.00	1.56	<MDA
B2	19	0.00	1.89	<MDA	0.45	1.91	<MDA
B3	20	0.00	2.02	<MDA	1.96	2.53	<MDA
B4	21	0.00	1.93	<MDA	0.00	1.46	<MDA
C1	22	0.00	1.98	<MDA	0.00	1.37	<MDA
C2	23	0.00	2.00	<MDA	1.26	2.23	<MDA
C3	24	0.00	2.15	<MDA	1.89	2.20	<MDA
D1	25	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	26	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	27	0.85	2.33	<MDA	2.80	2.85	<MDA

4 of 5

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR010
Batch Ended: 6/7/99 11:01
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-583 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
D4	28	0.00	2.23	<MDA	0.43	1.98	<MDA
A2	29	0.00	2.10	<MDA	0.00	1.46	<MDA
A3	30	0.00	2.04	<MDA	0.00	1.33	<MDA

7 Jun 1999 13:56 ALPHA/BETA - 1.09 Page #1
rotocol #: 2 Pw H3 20cc #405828 User : 5268

ime: 2.00
ata Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
ackground Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
egion A:	0.5	- 18.6	0	0.0	6.36
egion B:	2.0	- 18.6	0	0.0	6.08
egion C:	40.0	- 2000	0	0.0	10.91

uench Indicator: tSIE/AEC
Ext Std Terminator: Count
8-TF-583 RITTER(30-15)30
uminescence Correction On
oincidence Time(ns): 18
elay Before Burst(ns): Normal
rotocol Data Filename: c:\data\PROT1.DAT
ount Data Filename: c:\data\SDATA2.DAT
pectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	6.36	6.08	0	B	557.92		0.00	10.91
0	2.00	1208.50	1125.83	0		574.98	2919.52	251.97	1.59
1	2.00	0.00	0.00	0		663.86	0.00	0.00	0.09
2	2.00	3.14	2.57	0		684.21	6.97	10.30	0.59
3	2.00	2.14	2.42	0		684.43	4.75	9.81	0.00
4	2.00	3.28	2.73	0		675.93	7.29	10.41	0.00
5	2.00	3.14	2.66	0		658.53	7.09	10.49	0.00
6	2.00	0.00	0.00	0		665.35	0.00	0.00	0.00
7	2.00	0.14	0.42	0		595.27	0.34	9.39	0.00
8	2.00	0.14	0.09	0		630.97	0.33	9.11	0.00
9	2.00	0.64	0.92	0		675.87	1.43	9.05	0.00
10	2.00	5.29	5.00	0		678.29	[illegible]	11.38	[illegible]
11	2.00	1.64	[illegible]			663.87	[illegible]	9.93	0.59
[illegible]	2.00	0.00	0.00	0		626.09	0.00	0.00	0.00
13	2.00	0.00	0.00	0		589.77	[illegible]	0.00	0.00
14	2.00	[illegible]	1.42	0		575.77	1.56	9.86	0.00
15	2.00	3.14	3.42	0		642.67	7.19	10.63	0.09
16	2.00	1.64	1.51	0		676.37	3.65	9.59	0.09
17	2.00	0.00	0.00	0		681.76	0.00	0.00	0.00
18	2.00	3.64	3.50	0		678.30	8.10	10.57	0.00
19	2.00	2.14	2.42	0		653.36	4.86	10.03	5.09
20	2.00	1.01	0.79	0		660.10	2.27	9.37	0.00
21	2.00	0.00	0.11	0		590.31	0.00	0.00	0.00
22	2.00	0.00	0.00	0		657.68	0.00	0.00	0.00
23	2.00	0.14	0.42	0		630.06	0.33	9.11	0.59
24	2.00	0.00	0.00	0		656.15	0.00	0.00	1.59
25	2.00	0.00	0.00	0		635.20	0.00	0.00	0.00
26	2.00	0.00	0.00	0		557.33	0.00	0.00	0.00
27	2.00	0.00	0.00	0		648.43	0.00	0.00	0.00
28	2.00	1.69	1.96	0		641.03	3.86	9.89	0.00
29	2.00	1.88	1.66	0		593.30	4.48	10.41	0.09
30	2.00	0.64	0.17	0		656.51	1.45	9.20	0.00

Pl 3015/18

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) Building 63 west	SURVEY NO. 99-TF-588
PURPOSE: Characterization of debris being removed from building ~~for release~~, per agreement with state. LR 6-9-99	RWP NO. N/A
	DATE: 6-7-99
	TIME: 1300

MAP/DRAWING

Direct readings on or near each wipe by NE Electra.

α <100 dpm/100cm^2

β- <5k dpm/100cm^2

See back for debris discriptions

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr ($\beta+\eta+\gamma$) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5467/5354	10-12-99

[redacted]

HP#	Date:
7839	6-7-99
3268	6/8/99
6015	6/10/99

ML 0620 (2-98)

Survey No. 99-TF-588

2 of 4

Page ___ of ___

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See attached			Sheetrock
2	for wipe			Sheetrock
3		results		Insulation
4				Insulation
5				Metal studs
6				Metal studs
7				Ductwork
8				Ductwork
9		N	A	Piping
10				Piping
11				Wiring
12				Wiring
13				Heat exchanger
14				Heat exchanger
15				Insul. duct
16				Insul. duct
17				Misc. elect.
18				Misc. elect.
			A	
		N		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: All wipes <1k dpm per NE Electra (field count)

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

4 of 4

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR014
Batch Ended: 6/8/99 7:27
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-588 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	2	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	3	5.19	3.43	<AL	3.07	2.90	<MDA
B4	4	0.00	1.93	<MDA	0.00	1.46	<MDA
C1	5	3.54	2.79	<AL	1.28	2.29	<MDA
C2	6	0.00	1.98	<MDA	0.00	1.40	<MDA
C3	7	0.00	2.17	<MDA	4.41	2.83	<AL
C4	8	3.15	2.92	<AL	5.70	3.59	<AL
D1	9	1.57	1.97	<AL	0.00	1.47	<MDA
D2	10	0.00	2.02	<MDA	0.00	1.49	<MDA
D3	11	0.85	2.33	<MDA	2.80	2.85	<MDA
D4	12	0.00	2.24	<MDA	1.80	2.41	<MDA
B1	13	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	14	1.39	1.89	<MDA	0.00	1.41	<MDA
B3	15	1.33	2.02	<MDA	1.86	2.53	<MDA
B4	16	0.00	1.93	<MDA	0.00	1.46	<MDA
C1	17	3.53	2.80	<AL	2.58	2.64	<MDA
C2	18	0.00	1.98	<MDA	0.00	1.40	<MDA

8 Jun 1999 06:59 ALPHA/BETA - 1.09 Page #1
rotocol #: 1 Pw H3 20cc #405828 User : 5268

ime: 2.00
ata Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
ackground Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
egion A:	0.5	- 18.6	0	0.0	6.00
egion B:	2.0	- 18.6	0	0.0	5.84
egion C:	40.0	- 2000	0	0.0	11.10

ench Indicator: tSIE/AEC
Ext Std Terminator: Count
-TF-588 RITTER(30-15)18
minescence Correction On
incidence Time(ns): 18
lay Before Burst(ns): Normal
rotocol Data Filename: c:\data\PROT1.DAT
unt Data Filename: c:\data\SDATA1.DAT
ectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	6.00	5.84	8	B	605.91		0.00	11.10
0	2.00	1200.76	1130.84	0		575.84	2910.65	251.40	0.00
1	2.00	1.00	1.16	0		640.15	2.29	9.32	0.40
2	2.00	0.00	0.00	0		654.41	0.00	0.00	2.90
3	2.00	3.50	3.27	0		662.51	7.87	10.45	0.00
4	2.00	2.00	1.66	0		665.78	4.49	9.66	1.40
5	2.00	1.00	0.16	0		619.16	2.33	9.49	0.00
6	2.00	2.00	1.61	0		600.90	4.74	10.21	0.00
7	2.00	1.50	0.94	0		567.19	3.66	10.23	0.90
8	2.00	1.50	1.40	0		588.99	3.59	10.03	0.90
9	2.00	1.00	1.16	0		625.29	2.32	9.44	0.00
10	2.00	0.00	0.00	0		544.27	0.00	0.00	0.00
11	2.00	1.50	1.66	0		656.06	3.39	9.47	0.40
12	2.00	1.00	1.16	0		670.46	2.23	9.08	0.90
13	2.00	2.20	1.85	0		650.20	4.99	9.89	0.00
14	2.00	1.00	1.16	0		432.67	2.86	11.61	0.00
15	2.00	0.50	0.38	0		599.27	1.19	9.35	0.00
16	2.00	2.41	2.07	0		633.10	5.55	10.15	0.00
17	2.00	3.50	2.91	0		654.95	7.92	10.52	0.00
18	2.00	1.36	1.52	0		659.86	3.07	9.36	0.00

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Building 63W	SURVEY NO. 99-TF-595
PURPOSE: Characterization of debris for removal from building 63W as per agreement with state.	RWP NO. N/A
	DATE: 6-8-99
	TIME: 0800

MAP/DRAWING

Direct readings taken on or near each wipe by NE Electra.

α < 100 dpm/100cm^2

β- < 5k dpm/100cm^2

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr ($\beta+\eta+\gamma$) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α or /β = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5467/5354	10-12-99
	B	
	N	

[redacted]

HP#	Date:
7839	
3268	6/8/99
6015	6/10/99

ML-9620 (2-98)

Survey No. 99-TF-595

Page ___ of ___ 2 of 6

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
	Swipes (dpm/100cm²)			
Sample #	β/γ	Alpha	Tritium	Comments
1	see attached for wipe results			Drywall
2				Drywall
3				Drywall
4				Drywall
5				Heat Exchanger
6				Heat Exchanger
7				AC coils
8				Ductwork
9				Room 8 walls
10				↓
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				Room 7 walls
27				↓
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
	Swipes (dpm/100cm²)			
Sample #	β/γ	Alpha	Tritium	Comments
36	see attached for results			Room 7 wall
37				↓
38				
39				Room 8 top
40				Room 7 top
		N	A	

COMMENTS: All wipes <1k dpm per NE Electra (field count)

NA

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

3 of 6

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR003
Batch Ended: 6/8/99 14:48
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-595 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	2.05	<MDA	0.58	2.10	<MDA
B2	2	0.00	1.89	<MDA	0.45	1.91	<MDA
B3	3	0.00	2.02	<MDA	1.96	2.53	<MDA
B4	4	0.00	1.93	<MDA	0.00	1.46	<MDA
D1	5	0.00	1.98	<MDA	0.54	2.00	<MDA
D2	6	1.46	2.02	<MDA	0.00	1.49	<MDA
D3	7	0.00	2.32	<MDA	0.21	2.12	<MDA
D4	8	0.00	2.23	<MDA	0.00	1.43	<MDA
B1	9	3.43	2.84	<AL	0.00	1.57	<MDA
B2	10	0.00	1.89	<MDA	0.45	1.91	<MDA
B3	11	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	12	0.00	1.93	<MDA	0.00	1.46	<MDA
D1	13	0.00	1.99	<MDA	1.89	2.42	<MDA
D2	14	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	15	0.00	2.33	<MDA	2.91	2.85	<MDA
D4	16	1.74	2.23	<AL	0.00	1.43	<MDA
B1	17	1.46	2.05	<MDA	0.00	1.56	<MDA
B2	18	0.00	1.90	<MDA	1.73	2.30	<MDA
B3	19	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	20	0.00	1.93	<MDA	0.00	1.46	<MDA
D1	21	0.00	1.99	<MDA	3.25	2.77	<AL
D2	22	1.47	2.02	<MDA	0.00	1.49	<MDA
D3	23	0.88	2.32	<MDA	0.00	1.63	<MDA
D4	24	1.72	2.24	<MDA	0.29	1.98	<MDA
B1	25	1.28	2.05	<MDA	0.48	2.10	<MDA
B2	26	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	27	1.43	2.01	<MDA	0.00	1.54	<MDA

4 of 6

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR003
Batch Ended: 6/8/99 14:48
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-595 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B4	28	1.28	1.94	<MDA	1.86	2.36	<MDA
D1	29	1.54	1.99	<MDA	3.10	2.77	<AL
D2	30	0.00	2.04	<MDA	3.08	2.77	<MDA
D3	31	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	32	0.00	2.23	<MDA	0.00	1.42	<MDA
B1	33	0.00	2.06	<MDA	1.98	2.52	<MDA
B2	34	0.00	1.92	<MDA	6.85	3.44	<AL
B3	35	0.00	2.01	<MDA	0.54	2.09	<MDA
B4	36	1.28	1.94	<MDA	1.86	2.36	<MDA
D1	37	3.49	2.78	<AL	1.61	2.42	<MDA
D2	38	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	39	0.87	2.32	<MDA	0.10	2.12	<MDA
D4	40	0.00	2.23	<MDA	0.00	1.42	<MDA

9 Jun 1999 07:21 ALPHA/BETA - 1.09 Page #1
rotocol #: 3 Pw H3 20cc #405828 User : 5268

[illegible]
[illegible] Mode: DPM Nuclide: SMVIALI Quench Set: SMVIALI
[illegible] Subtract: 1st Vial

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] A:	[illegible] - [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] B:	[illegible] - [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] C:	[illegible] - [illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] Indicator: [illegible] ABS
[illegible] Terminator: Count
[illegible]
[illegible] Correction On
[illegible]: [illegible]
[illegible] Before Bursting: Normal
[illegible] Data Filename: c:\data\PRO11.DAT
[illegible] Data Filename: c:\data\SDATA3.DAT
[illegible] Data Drive & Path: c:\data

[illegible]	[illegible]	[illegible]	[illegible]	LUM	FLAG	[illegible]	DPM1	DSigma	DPM2
[illegible]	10.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	11.67
[illegible]	1.00	[illegible]	[illegible]	0		572.92	[illegible]	[illegible]	0.00
[illegible]	60	[illegible]	[illegible]	0		[illegible]	[illegible]	[illegible]	0.33
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	0.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	0.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		642.[illegible]	[illegible]	[illegible]	1.33
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		563.[illegible]	[illegible]	0.00	0.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	0.00
[illegible]	[illegible]	[illegible]	[illegible]	0		552.[illegible]	[illegible]	10.07	0.00
[illegible] 8	2.00	0.00	0.00	0		632.[illegible]	[illegible]	0.00	0.00
[illegible] 9	2.00	0.00	0.00	0		600.1[illegible]	0.00	0.00	0.00
[illegible] 10	2.00	0.02	0.00	0		636.16	0.00	0.00	4.04
11	2.00	0.00	0.00	0		549.61	0.00	0.00	0.00
12	2.00	0.10	0.42	0		622.34	0.23	10.21	0.00
13	2.00	0.00	0.00	0		617.03	0.00	0.00	0.00
14	2.00	0.10	0.16	0		592.06	0.24	10.48	0.00
15	2.00	0.00	0.00	0		562.90	0.00	0.00	0.00
16	2.00	0.13	0.00	0		669.51	0.28	9.82	0.33
17	2.00	0.00	0.00	0		593.52	0.00	0.00	0.00
18	2.00	0.00	0.00	0		591.83	0.00	0.00	1.83
19	2.00	0.00	0.00	0		641.95	0.00	0.00	0.00
20	2.00	0.00	0.00	0		543.02	0.00	0.00	0.00
21	2.00	2.10	1.57	0		636.79	4.83	11.09	0.00
22	2.00	1.10	1.13	0		607.72	2.59	10.26	0.33
23	2.00	0.00	0.00	0		607.44	0.00	0.00	0.00
24	2.00	0.00	0.00	0		642.93	0.00	0.00	1.83
25	2.00	0.10	0.42	0		613.64	0.23	10.28	0.00
26	2.00	0.00	0.00	0		608.90	0.00	0.00	0.00
27	2.00	1.10	0.92	0		676.08	2.58	10.69	0.00
28	2.00	0.00	0.00	0		563.77	0.00	0.00	0.00
29	2.00	0.00	0.00	0		604.08	0.00	0.00	0.00
30	2.00	1.60	0.49	0		618.63	3.74	11.01	0.00
31	2.00	1.60	1.42	0		639.68	3.67	10.82	0.00
32	2.00	0.10	0.00	0		624.26	0.23	10.19	0.33
33	2.00	1.36	0.54	5		658.22	2.83	10.48	0.00
34	2.00	0.00	0.00	0		665.45	0.00	0.00	0.00

9 Jun 1999 08:59 ALPHA/BETA - 1.09 Page #2
rotocol #: 3 Pw H3 20cc #405828 User : 5268

[illegible]	[illegible]	[illegible]	CPMB	[illegible]	[illegible]	DPM1	2Sigma	[illegible]
[illegible]	2.00	0.00	0.00	8	[illegible]	.00	0.00	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.35	10.12	0.00
[illegible]	[illegible]	[illegible]	0.00		[illegible]	[illegible]	0.00	[illegible]
[illegible]	2.00	[illegible]	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	0.00	[illegible]

P2 30-15/18

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Building 63W	SURVEY NO. 99-TF-602
PURPOSE: characterization of debris for removal from building as per agreement with state.	RWP NO. N/A
	DATE: 6-9-99
	TIME: 0900

MAP/DRAWING

Direct reading taken at or near each wipe with NE Electra.

α <100 dpm/100cm²

β- <5k dpm/100cm²

see back for description of debris.

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5467/5354	10-12-99
	A	
	N	

[redacted]

HP#	Date:
7839	6-9-99
5268	6/9/99
6015	6/14/99

ML-9620 (2-98)

Survey No. 99-TF-602

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Page ___ of ___

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
	Swipes (dpm/100cm²)			
Sample #	β/γ	Alpha	Tritium	Comments
1	see attached			Carpet top
2	for wipe			Carpet bottom
3		results		carpet top
4				carpet bottom
5				4c squirrel cage
6				" " "
7				" " "
8				Neon light
9				Neon light
10				I-beam
11				metal
12				
13				
14				
15				
16				
17				
18				
		N	A	

Removable Contamination				
	Swipes (dpm/100cm²)			
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: All wipes <1000 dpm per NE Electra. (field count)

N A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

3 of 4

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR005
Batch Ended: 6/9/99 15:53
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-602 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	2.06	<MDA	1.98	2.52	<MDA
B2	2	0.00	1.89	<MDA	0.45	1.91	<MDA
B3	3	5.39	3.42	<AL	0.00	1.54	<MDA
B4	4	0.00	1.94	<MDA	3.27	2.70	<AL
D1	5	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	6	0.00	2.02	<MDA	0.00	1.49	<MDA
D3	7	0.00	2.33	<MDA	2.91	2.85	<MDA
D4	8	0.00	2.26	<MDA	4.55	3.10	<AL
B1	9	1.20	2.06	<MDA	1.88	2.52	<MDA
B2	10	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	11	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	12	1.41	1.93	<MDA	0.00	1.46	<MDA
D1	13	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	14	1.45	2.03	<MDA	0.25	2.01	<MDA
D3	15	0.00	2.33	<MDA	1.56	2.51	<MDA
D4	16	0.00	2.24	<MDA	1.80	2.41	<MDA
B1	17	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	18	0.00	1.89	<MDA	0.00	1.41	<MDA

[illegible] Jun 1999 [illegible]08:29 ALPHA/BETA – 1.09 Page #1
[illegible]otocol #: 2 Fw H3 20cc #405828 User : 5266

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]SIE	[illegible]	[illegible]Sigma	[illegible]
-1	[illegible]	[illegible].42	[illegible]	[illegible]	P 561.56		0.00	11.50
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	556.77	242.[illegible]	112.63	0.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	530.39	0.[illegible]	[illegible].00	0.0[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].42	[illegible]	[illegible]	0.00
[illegible]	[illegible]	[illegible].56	[illegible].90	[illegible]	[illegible]66.63	1.4[illegible]	[illegible].55	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-49.25	[illegible]	0.00	0.00
[illegible]	[illegible].00	[illegible]8	0.[illegible]	[illegible]	599.47	[illegible]	7.37	[illegible].50
[illegible]	[illegible]	[illegible].72	4.46	[illegible]	599.33	11.[illegible]	11.95	0.00
[illegible]	[illegible]	[illegible]	0.00	[illegible]	430.72	0.[illegible]	0.00	0.00
8	2.00	3.59	2.40	0	663.97	5.75	10.15	0.00
9	2.00	3.42	3.46	0	599.40	8.1[illegible]	11.21	0.00
10	2.00	3.74	3.25	0	618.38	8.7[illegible]	11.19	0.00
11	2.00	2.08	1.52	0	609.78	4.90	10.41	0.00
12	2.00	1.58	1.07	0	625.97	3.67	10.00	0.00
13	2.00	0.08	0.00	0	630.08	0.19	9.12	0.00
14	2.00	3.08	2.40	0	662.83	6.93	10.46	0.00
15	2.00	0.58	0.90	0	664.50	1.31	9.14	0.00
16	2.00	0.00	0.00	0	615.36	0.00	0.00	0.00
17	2.00	0.51	0.83	0	604.93	1.22	9.58	0.00
6	2.00	4.08	3.97	0	683.89	9.07	10.79	0.00

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) Building 63W	SURVEY NO. 99-TF-606
PURPOSE: Characterization of debris as per agreement with state.	RWP NO. N/A
	DATE: 6-10-99
	TIME: 0830

MAP/DRAWING

Direct readings taken on or near wipe locations with NE Electra

α < 100 dpm/100 cm^2

β^- < 5k dpm/100 cm^2

See back for debris description

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr ($\beta+\eta+\gamma$) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5467/5354	10-12-99

[redacted]

HP#	Date:
7839	6-10-99
5268	6/14/99
6015	6/14/99

ML-9620 (2-98)

Survey No. 99-TF-.606 2 of 4 Page ___ of ___

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See attached			compressor
2	for wipe			compressor
3	results			metal
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
		N	A	

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: All wipes <1k dpm per NE Electra field count.

N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

3064

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR011
Batch Ended: 6/14/99 10:42
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-606 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	2.05	<MDA	0.58	2.10	<MDA
B2	2	0.00	1.89	<MDA	0.45	1.91	<MDA
B3	3	0.00	2.02	<MDA	1.96	2.53	<MDA
B4	4	0.00	1.93	<MDA	0.65	1.96	<MDA
D1	5	0.00	1.99	<MDA	1.89	2.42	<MDA
D2	6	0.00	2.02	<MDA	0.00	1.49	<MDA
D3	7	0.00	2.33	<MDA	1.56	2.51	<MDA
D4	8	0.00	2.23	<MDA	0.43	1.98	<MDA
B1	9	0.00	2.06	<MDA	1.98	2.52	<MDA
B2	10	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	11	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	12	0.00	1.93	<MDA	0.00	1.46	<MDA
D1	13	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	14	0.00	2.02	<MDA	0.00	1.49	<MDA
D3	15	0.00	2.33	<MDA	2.91	2.85	<MDA
D4	16	0.00	2.23	<MDA	0.00	1.42	<MDA
B1	17	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	18	0.00	1.90	<MDA	1.73	2.30	<MDA
B3	19	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	20	1.41	1.93	<MDA	0.00	1.46	<MDA

otocol #: 4 Pw H3 20cc #405828 User : 5289

ime: 2.00
ata Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
ckground Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
gion A:	0.5 -	18.8	0	0.0	6.74
gion B:	2.0 -	18.8	0	0.0	6.47
gion C:	40.0 -	2000	0	0.0	10.87

ench Indicator: tSIE/AEC
Ext Std Terminator: Count
-TF-606 RITTER(30-15 1-60)
minescence Correction On
incidence Time(ns): 18
lay Before Burst(ns): Normal
otocol Data Filename: c:\data\PROT1.DAT
unt Data Filename: c:\data\SDATA4.DAT
ectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	6.74	6.47	3	B	805.24		0.00	10.87
0	2.00	1273.26	1189.42	0		591.51	3043.[illegible]	251.[illegible]	[illegible]
1	2.00	0.[illegible]	0.00	[illegible]		[illegible]		[illegible]	0.00
2	[illegible]					817.[illegible]	[illegible]	0.00	0.00
	[illegible]	[illegible]	0.00	0		477.30	[illegible]	[illegible]	[illegible]
4	2.00	1.71	[illegible]	[illegible]		[illegible]	[illegible]	9.85	0.63
[illegible]	[illegible]	[illegible]	0.00	0		656.69	0.00	0.00	0.00
6	2.00	0.00	0.00	0		669.71	0.00	0.00	0.00
7	2.00	1.72	1.13	0		673.16	3.38	9.30	0.63
8	2.00	0.00	0.00	0		641.06	0.00	0.00	0.00
9	2.00	0.00	0.00	0		643.43	0.00	0.00	2.07
10	2.00	4.28	4.15	0		661.71	9.60	11.21	0.00
11	2.00	0.00	0.00	0		640.91	0.00	0.00	1.63
12	2.00	0.76	0.53	0		663.60	1.71	9.45	0.00
13	2.00	0.00	0.00	0		619.98	0.00	0.00	0.00
14	2.00	0.20	0.47	0		634.79	0.46	9.37	0.00
15	2.00	0.00	0.00	0		646.21	0.00	0.00	0.00
16	2.00	0.00	0.00	0		646.18	0.00	0.00	0.63
17	2.00	2.76	2.65	0		659.54	6.23	10.51	0.00
18	2.00	1.26	1.15	0		659.08	2.85	9.76	0.00
19	2.00	0.00	0.00	0		560.03	0.00	0.00	0.13
20	2.00	1.26	1.53	0		672.10	2.82	9.65	0.00

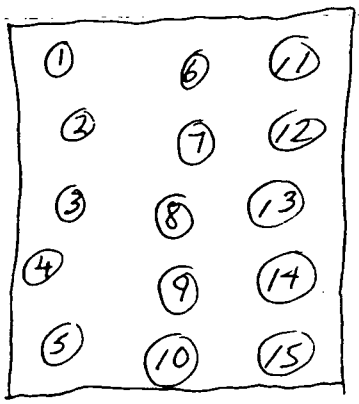
RADIOLOGICAL SURVEY DATA SHEET

Page 1 of ___ P3 3U-15(3C)

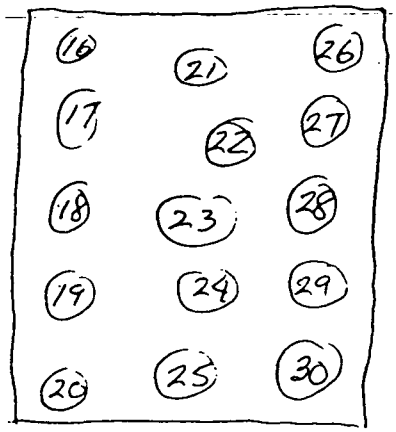
LOCATION: (BLDG./AREA/ROOM) 63	SURVEY NO. 99-TF-613
PURPOSE: EVALUATION FOR RELEASE OF FORMERLY INACCESSABLE SURFACES	RWP NO. N/A
	DATE: 061199
	TIME: 1530

MAP/DRAWING

REAR WALL, E. CHAMBER



REAR WALL, W. CHAMBER



← N

ALL DIRECT READINGS ON ALL SWIPED SURFACES: <100 dpm/100cm²/alpha
< 5K dpm/100cm²/Beta

PRESCREEN SWIPES RESULTS: <1K/α,β

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
ELECTRA	5262/5288	061199
	N A	

Completed by: (Signature) [redacted]	HP# 4992	Date: 061199
Completed by: (Print Name) [redacted]		
C [redacted]	HP# 5268	Date: 6/14/99
C [redacted]		
R [redacted]	HP# 6015	Date: 6/14/99
R [redacted]		

ML-9620 (2-98)

Survey No. 99-TF-613

Page ___ of ___

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1-5				E. WALL (N)
6-10				E. WALL (MID)
11-15				E. WALL (S)
16-20				W. WALL (N)
21-25				W. WALL (MID)
26-30				W. WALL (S)
		N/A		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

COMMENTS:

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR015
Batch Ended: 6/14/99 13:30
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-613 RYAN

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	2	0.00	1.90	<MDA	1.73	2.30	<MDA
B3	3	3.33	2.81	<AL	0.33	2.09	<MDA
B4	4	0.00	1.94	<MDA	1.96	2.36	<MDA
D1	5	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	6	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	7	0.00	2.34	<MDA	4.25	3.15	<AL
D4	8	0.00	2.23	<MDA	0.00	1.43	<MDA
B1	9	0.00	2.06	<MDA	1.98	2.52	<MDA
B2	10	0.00	1.90	<MDA	1.73	2.30	<MDA
B3	11	0.00	2.02	<MDA	1.96	2.53	<MDA
B4	12	0.00	1.94	<MDA	1.96	2.36	<MDA
D1	13	1.57	1.97	<AL	0.00	1.47	<MDA
D2	14	0.00	2.04	<MDA	1.73	2.42	<MDA
D3	15	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	16	0.00	2.23	<MDA	0.43	1.98	<MDA
B1	17	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	18	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	19	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	20	1.41	1.93	<MDA	0.00	1.46	<MDA
D1	21	0.00	1.98	<MDA	0.54	2.00	<MDA
D2	22	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	23	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	24	0.00	2.23	<MDA	0.00	1.43	<MDA
B1	25	0.00	2.07	<MDA	4.78	3.20	<AL
B2	26	1.39	1.89	<MDA	0.00	1.41	<MDA
B3	27	1.38	2.01	<MDA	0.44	2.09	<MDA

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR015
Batch Ended: 6/14/99 13:30
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-613 RYAN

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B4	28	0.00	1.94	<MDA	1.96	2.36	<MDA
D1	29	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	30	1.45	2.03	<MDA	0.25	2.01	<MDA

rotocol #: 3 Pw H3 20cc #405828 User : 5268

ime: 2.00
ata Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
ackground Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
egion A:	0.5 -	18.6	0	0.0	5.88
egion B:	2.0 -	18.6	0	0.0	5.66
egion C:	40.0 -	2000	0	0.0	11.10

uench Indicator: tSIE/AEC
Ext Std Terminator: Count
~~0 TP=595 RITTER(30-15 1 40)~~ 99-17-613 Ryan (30-15) 30 6/15/99
uminescence Correction On
oincidence Time(ns): 18
elay Before Burst(ns): Normal
rotocol Data Filename: c:\data\PROT1.DAT
ount Data Filename: c:\data\SDATA3.DAT
pectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	5.88	5.66	0	B	557.11		0.00	11.10
0	2.00	1313.43	1228.23	0		579.79	3172.51	271.19	2.40
1	2.00	51.21	48.00	0		640.26	117.36	26.30	35.95
2	2.00	4.62	4.52	0		624.76	10.73	11.25	0.00
3	2.00	14.74	13.89	0		645.38	33.69	15.28	1.40
4	2.00	1.12	0.84	0		631.31	2.59	9.34	0.40
5	2.00	0.00	0.00	0		619.90	0.00	0.00	0.00
6	2.00	0.62	0.56	0		605.73	1.47	9.25	0.00
7	2.00	31.61	26.69	0		656.02	71.94	20.67	36.90
8	2.00	0.00	0.00	0		653.25	0.00	0.00	0.00
9	2.00	0.00	0.00	0		649.01	0.00	0.00	2.14
10	2.00	0.00	0.00	0		685.10	0.00	0.00	1.90
11	2.00	4.12	4.34	0		664.54	9.26	10.64	1.40
12	2.00	1.68	1.90	0		642.16	3.85	9.57	0.00
13	2.00	0.00	0.00	0		675.38	0.00	0.00	0.00
14	2.00	10.23	9.22	0		674.70	22.79	13.21	7.20
15	2.00	2.40	2.61	0		654.72	5.43	9.85	3.40
16	2.00	2.53	1.85	0		665.26	5.67	9.83	0.00
17	2.00	3.85	3.56	0		645.12	8.78	10.68	5.40
18	2.00	4.49	4.03	0		634.62	10.34	11.09	4.40
19	2.00	8.12	6.57	0		682.70	18.02	12.30	2.91
20	2.00	2.62	2.84	0		597.95	6.23	10.47	2.90
21	2.00	2.12	2.34	0		642.70	4.85	9.80	4.90
22	2.00	2.32	2.28	0		590.86	5.54	10.36	0.00
23	2.00	1.12	0.93	0		672.15	2.50	9.03	0.00
24	2.00	1.12	1.34	0		629.91	2.59	9.35	4.90
25	2.00	0.12	0.00	0		664.90	0.27	8.50	1.40
26	2.00	25.12	18.39	0		653.30	56.95	18.69	1.40
27	2.00	0.00	0.00	0		681.93	0.00	0.00	1.40
28	2.00	2.12	1.96	0		660.67	4.78	9.66	0.00
29	2.00	0.00	0.00	0		625.56	0.00	0.00	0.00
30	2.00	6.12	4.71	0		655.74	13.85	11.66	0.00

P2 3015(8)

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Building 63W	SURVEY NO. 99-TF-620
PURPOSE: Survey of metal sheets being cut out for removal as per agreement with state.	RWP NO. NA
	DATE: 6-14-99
	TIME: 1400

MAP/DRAWING

Direct reading on or near each wipe with NE Electra.

α < 100 dpm/100 cm^2

β- < 5k dpm/100 cm^2

All wipes < 1000 dpm per NE Electra (field counts).

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr ($\beta+\eta+\gamma$) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α or /β) = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5467/5354	10-12-99
	A	
	N	

[redacted]

HPS	Date:
7839	6-14-99
5268	6/15/99
6057	6/29/99

MI-9620 (2-98)

Survey No. 99-TF 620

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	see attached			metal sheet
2		for	wipe	
3		re	sults	
4				
5				
6				
7				
8				metal sheet
		N	A	

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: A

N

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

3 of 4

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR017
Batch Ended: 6/15/99 7:18
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-62~~1~~0 RITTER 6/15/99 [illegible]

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	3.17	2.85	<AL	1.78	2.52	<MDA
B2	2	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	3	0.00	2.02	<MDA	3.38	2.90	<AL
B4	4	0.00	1.93	<MDA	0.65	1.96	<MDA
D1	5	0.00	1.98	<MDA	0.54	2.00	<MDA
D2	6	0.00	2.02	<MDA	0.00	1.49	<MDA
D3	7	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	8	0.00	2.25	<MDA	3.17	2.77	<AL

ime: 2.00
ets Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
ackground Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
egion A:	0.5 -	18.6	0	0.0	4.57
egion B:	2.0 -	18.6	0	0.0	4.36
egion C:	40.0 -	2000	0	0.0	10.83

ench Indicator: tSIE/AEC
Ext Std Terminator: Count
-TF-620 (30-1508
minescence Correction On
oincidence Time(ns): 18
elay Before Burst(ns): Normal
rotocol Data Filename: c:\data\PROT1.DAT
unt Data Filename: c:\data\SDATA2.DAT
pectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	DUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	4.57	4.36	2	B	600.35		0.00	10.83
0	2.00	1240.37	1151.86	0		588.30	2973.44	255.71	5.67
1	2.00	6.93	7.14	0		629.12	16.03	11.59	2.67
2	2.00	0.93	0.64	0		647.33	2.12	8.16	2.17
3	2.00	2.93	3.14	0		632.56	6.76	9.48	0.67
4	2.00	0.07	0.28	0		617.13	0.16	7.79	0.17
5	2.00	0.00	0.14	0		685.12	0.00	0.00	0.00
6	2.00	2.93	3.14	0		650.30	6.66	9.34	0.00
7	2.00	1.11	1.32	0		560.07	2.73	6.93	4.67
8	2.00	0.00	0.00	0		626.66	0.00	0.00	0.00

YSTEM NORMALIZED

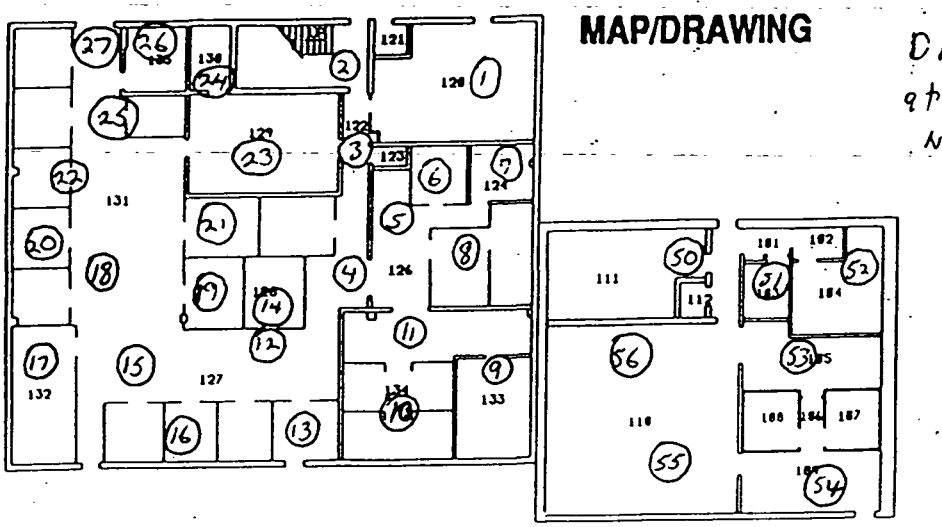
14 IPA DATA PROCESSED - 15-Jun-1999 13:18
C14 Eff (0-156 keV) = 96.12 %
3 IPA DATA PROCESSED - 15-Jun-1999 13:20
H3 Eff (0-18.6 keV) = 62.59 %
KG IPA DATA PROCESSED - 15-Jun-1999 14:20
Bkg (0-18.6 keV) = 14.77 cpm
Bkg (0-156 keV) = 21.82 cpm
C14 E^2/B (1-156 keV) = 550.48
H3 E^2/B (1-18.6 keV) = 265.03

30-15 (56) P2

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) Building 63 - All	SURVEY NO. 99-TF-634
PURPOSE: Annual general contamination survey of building.	RWP NO. N/A
	DATE: 6-15-99
	TIME: 1445

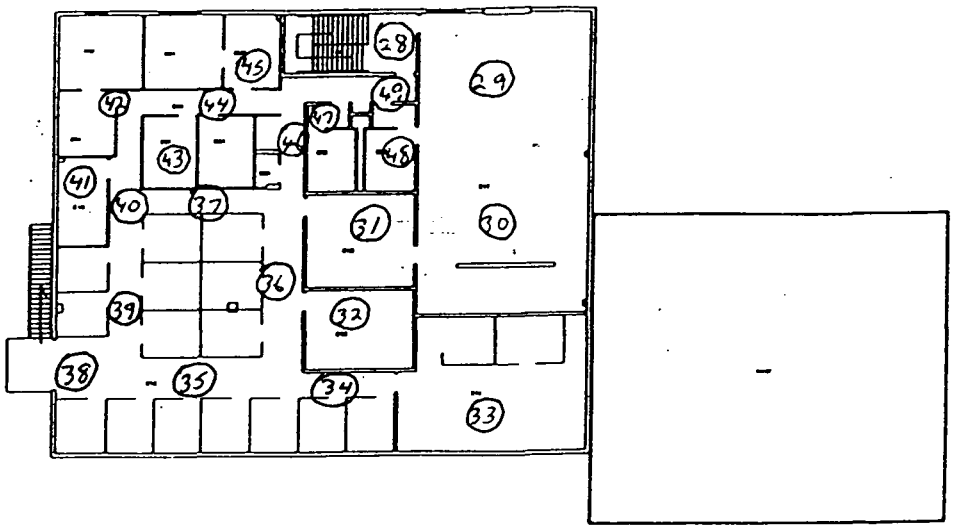
MAP/DRAWING



BLDG #63
FIRST FLOOR
BLDG CODE:3063

Direct readings taken at or near each wipe by NE Electra:
α <100 dpm/100cm²
β- <5k dpm/100cm²

All wipes <1000 dpm per NE Electra field counts.



BLDG #63
SECOND FLOOR
BLDG CODE:3063

LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5467/5354	10-12-99
	A	
	N	

[redacted]

HP#	Date:
7839	6-15-99
3268	6/16/99
1057	6-29-99

Survey No. 99-TF-634

2 of 6

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	see attached			floor
2		for wipe		
3		results		
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				floor
16				cabinet top
17				floor
18				floor
19				equip. stand
20				countertop
21				counter top
22				floor
23				floor
24				table top
25				floor
26				table top
27				desk
28				floor
29				AC unit
30				floor
31				table top
32				desk
33				floor
34				floor
35				floor

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				cabinet
37	see attached			floor
38		for wipe		
39		results		
40				
41				
42				floor
43				desk
44				floor
45				desk
46				microwave
47				floor
48				
49				
50				
51				
52				
53				floor
54				wall
55				floor
56				floor

COMMENTS: A

N

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

3 of 6

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR023
Batch Ended: 6/16/99 9:57
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-634 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	2	0.00	1.91	<MDA	4.29	2.92	<AL
B3	3	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	4	0.00	1.94	<MDA	1.96	2.36	<MDA
D1	5	0.00	1.99	<MDA	1.89	2.42	<MDA
D2	6	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	7	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	8	0.00	2.23	<MDA	0.00	1.42	<MDA
B1	9	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	10	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	11	0.00	2.02	<MDA	1.96	2.53	<MDA
B4	12	0.00	1.93	<MDA	0.65	1.96	<MDA
D1	13	0.00	1.99	<MDA	1.89	2.42	<MDA
D2	14	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	15	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	16	0.00	2.24	<MDA	1.80	2.41	<MDA
B1	17	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	18	1.39	1.89	<MDA	0.00	1.41	<MDA
B3	19	0.00	2.01	<MDA	0.54	2.09	<MDA
B4	20	0.00	1.94	<MDA	1.96	2.36	<MDA
D1	21	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	22	0.00	2.02	<MDA	0.00	1.49	<MDA
D3	23	0.00	2.32	<MDA	0.21	2.12	<MDA
D4	24	0.00	2.23	<MDA	0.00	1.42	<MDA
B1	25	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	26	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	27	0.00	2.01	<MDA	0.00	1.54	<MDA

4 of 6

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR023
Batch Ended: 6/16/99 9:57
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-634 RITTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B4	28	0.00	1.93	<MDA	0.00	1.46	<MDA
D1	29	0.00	1.99	<MDA	3.25	2.77	<AL
D2	30	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	31	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	32	0.00	2.23	<MDA	0.00	1.43	<MDA
B1	33	1.37	2.05	<MDA	0.00	1.56	<MDA
B2	34	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	35	0.00	2.01	<MDA	0.54	2.09	<MDA
B4	36	3.22	2.69	<AL	0.46	1.96	<MDA
D1	37	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	38	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	39	0.88	2.32	<MDA	0.00	1.63	<MDA
D4	40	0.00	2.23	<MDA	0.00	1.42	<MDA
B1	41	1.37	2.05	<MDA	0.00	1.56	<MDA
B2	42	0.00	1.89	<MDA	0.00	1.41	<MDA
B3	43	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	44	0.00	1.93	<MDA	0.00	1.46	<MDA
D1	45	0.00	1.97	<MDA	0.00	1.47	<MDA
D2	46	0.00	2.03	<MDA	0.38	2.01	<MDA
D3	47	0.00	2.32	<MDA	0.00	1.63	<MDA
D4	48	0.00	2.23	<MDA	0.43	1.98	<MDA
B1	49	0.00	2.05	<MDA	0.58	2.10	<MDA
B2	50	1.39	1.89	<MDA	0.00	1.41	<MDA
B3	51	0.00	2.01	<MDA	0.54	2.09	<MDA
B4	52	0.00	1.93	<MDA	0.00	1.46	<MDA
D1	53	0.00	1.99	<MDA	1.89	2.42	<MDA
D2	54	0.00	2.02	<MDA	0.00	1.49	<MDA
D3	55	0.88	2.32	<MDA	0.00	1.63	<MDA
D4	56	0.00	2.23	<MDA	0.43	1.98	<MDA

6 Jun 1999 16:37 ALPHA/BETA - 1.09 Page #2
rotocol #: 2 Pw H3 20cc #405828 User : 5268

ime: 2.00
ata Mode: DPM Nuclide: SMVIAL2 Guench Set: SMVIAL2
Subtract: 1st Vial

	LL	UL	LCR	2S%	[illegible]
egion A:	0.5	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	0.0	4.73
[illegible]	40.0	2000	0	0.0	12.16

ench Indicator: tSIE/AEC
Ext Std Terminator: Count
P-TF-634 RITTER(30-15)56
uminescence Correction On
oincidence Time(ns): 18
elay Before Burst(ns): Normal
rotocol Data Filename: c:\data\PROT.DAT
unt Data Filename: c:\data\SDATA2.DAT
ectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	4.99	4.73	0	B	606.58		0.00	12.16
0	2.00	1227.14	1142.66	0		592.38	2931.13	252.38	0.00
1	2.00	2.63	2.88	0		615.90	6.14	9.72	0.00
2	2.00	1.01	0.85	0		680.09	2.24	8.31	0.00
3	2.00	1.51	1.77	0		672.17	3.37	8.65	0.00
4	2.00	5.12	2.65	0		674.51	11.40	10.53	0.00
5	2.00	1.97	1.23	0		665.70	4.42	8.96	0.00
6	2.00	3.51	3.77	0		664.80	7.88	9.80	0.00
7	2.00	3.01	2.88	0		663.59	6.76	9.55	0.00
8	2.00	0.00	0.00	0		672.00	0.00	0.00	0.00
9	2.00	2.51	2.77	0		670.45	5.60	9.22	0.00
10	2.00	0.00	0.00	0		628.87	0.00	0.00	0.00
11	2.00	3.01	2.92	0		641.37	6.89	9.73	0.00
12	2.00	2.01	1.86	0		671.80	4.48	8.93	0.00
13	2.00	0.15	0.00	0		705.97	0.33	7.69	0.00
14	2.00	0.01	0.27	0		639.99	0.02	7.94	0.00
15	2.00	2.10	1.85	0		673.30	4.67	8.97	0.00
16	2.00	2.51	2.27	0		677.77	5.58	9.18	0.00
17	2.00	2.21	2.10	0		650.36	5.02	9.21	0.00
18	2.00	0.01	0.27	0		662.04	0.02	7.79	0.00
19	2.00	0.00	0.00	0		596.44	0.00	0.00	0.00
20	2.00	3.72	3.98	0		621.72	8.67	10.28	0.00
21	2.00	0.01	0.27	0		661.77	0.02	7.80	0.12
22	2.00	5.99	6.25	0		667.77	13.42	11.01	0.00
23	2.00	1.09	1.35	0		643.59	2.50	8.60	0.00
24	2.00	0.01	0.00	0		634.50	0.02	7.98	0.00
25	2.00	0.00	0.00	0		625.64	0.00	0.00	0.00
26	2.00	1.45	0.92	0		664.53	3.25	8.67	0.00
27	2.00	0.51	0.33	0		687.01	1.13	7.98	0.00
28	2.00	3.80	2.64	0		676.69	8.46	9.87	0.00
29	2.00	3.51	3.77	0		656.89	7.93	9.87	0.00
30	2.00	3.01	2.27	0		574.88	7.30	10.31	0.00
31	2.00	2.01	2.27	0		666.75	4.50	8.97	0.00
32	2.00	3.32	3.58	0		677.28	7.38	9.61	0.00
33	2.00	1.51	1.27	0		677.72	3.35	8.61	0.00
34	2.00	0.51	0.77	0		679.81	1.13	8.01	0.00

5 Jun 1999 18:14 ALPHA/BETA - 1.09 Page #2
rotocol #: 2 Pw H3 20cc #405828 User : 5268

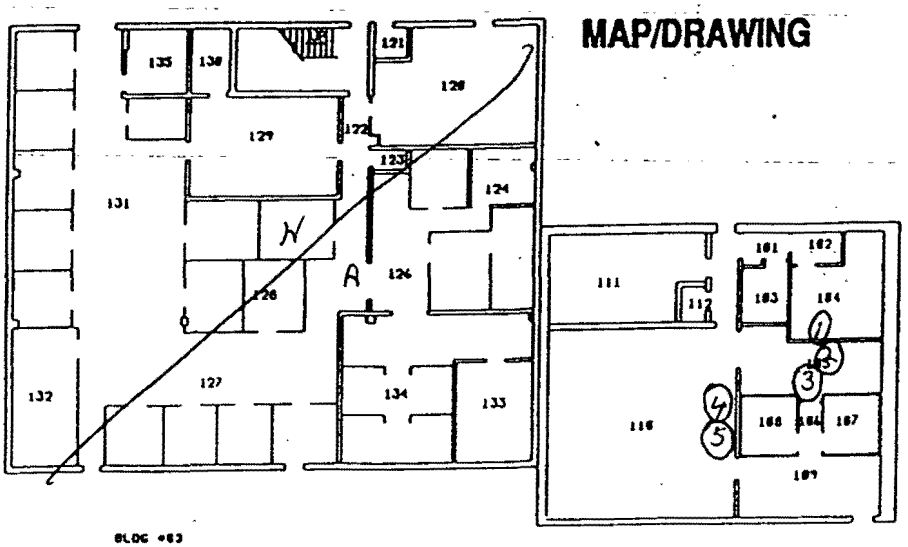
S#	TIME	CPMA	CPMB	LUM FLAG	tSIE	DPM1	2Sigma	CPMC
35	2.00	0.38	0.14	0	660.61	0.86	8.04	0.34
36	2.00	5.01	4.84	0	683.85	11.11	10.43	0.00
37	2.00	2.44	2.27	0	680.76	5.41	9.13	0.00
38	2.00	0.00	0.00	0	676.19	0.00	0.00	0.34
39	2.00	2.20	2.46	0	679.26	4.88	9.00	0.00
40	2.00	3.01	2.85	0	679.77	6.68	9.44	1.34
41	2.00	2.14	2.40	0	675.92	4.77	8.98	0.00
42	2.00	2.46	2.22	0	666.56	5.51	9.22	0.34
43	2.00	0.51	0.00	0	688.62	1.12	7.98	0.00
44	2.00	2.51	2.27	0	672.17	5.60	9.21	2.34
45	2.00	3.01	3.27	0	688.26	6.66	9.40	0.00
46	2.00	3.51	3.33	0	686.27	7.77	9.67	0.00
47	2.00	1.86	0.75	0	688.89	4.12	8.77	0.13
48	2.00	2.51	2.34	0	680.84	5.57	9.16	0.00
49	2.00	4.51	4.33	0	687.90	9.98	10.17	0.00
50	2.00	2.15	2.40	0	646.73	4.89	9.20	0.00
51	2.00	1.51	1.77	0	616.74	3.53	9.06	0.84
52	2.00	0.51	0.77	0	613.89	1.19	8.45	0.00
53	2.00	1.06	1.07	0	582.24	2.55	9.05	0.00
54	2.00	3.62	3.88	0	555.89	8.93	10.84	0.00
55	2.00	1.51	1.77	0	526.37	3.83	9.83	0.00
56	2.00	1.88	2.14	0	571.71	4.58	9.66	0.00

P2 30-15(5)

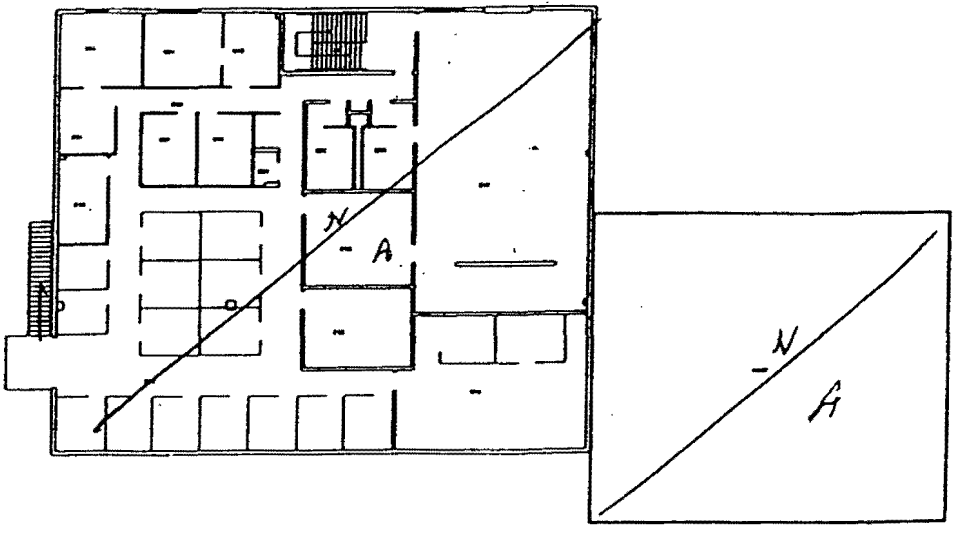
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Building 63 West	SURVEY NO. 99-TF-654
PURPOSE: Characterization Survey of floor to cut for removal.	RWP NO. NA
	DATE: 6-17-99
	TIME: 1300

MAP/DRAWING



BLDG #63
FIRST FLOOR
BLDG CODE:3063



BLDG #63
SECOND FLOOR
BLDG CODE:3063

Took direct readings at or near each wipe location:

α = <100dpm/100cm²

β = <5000dpm/100cm²

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr ($\beta+\eta+\gamma$) extremity on contact

△# = mrem/hr neutron

□# = air sample number

(#) = swipe number

(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5467/5354	10-12-99
	N	A

Completed by: (Signature) [redacted]

HP#	Date:
7837	6-17-99
[redacted]	
5268	6/21/99
[redacted]	
6057	6-28-99
[redacted]	

Survey No. 99-TF-654

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See attached for wipe results			see map
2	↓	↓	↓	↓
3				
4				
5				
		N	A	

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: All wipes <1000 dpm per NF (field count)

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

3 of 4

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR049
Batch Ended: 6/21/99 8:04
Cal. Due Date: 7/21/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-654 FOSTER

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	2.05	<MDA	0.00	1.56	<MDA
B2	2	0.00	1.89	<MDA	0.45	1.91	<MDA
B3	3	0.00	2.01	<MDA	0.00	1.54	<MDA
B4	4	0.00	1.94	<MDA	3.27	2.70	<AL
D1	5	1.57	1.97	<AL	0.00	1.47	<MDA

1 Jun 1999 15:28 ALPHA/BETA - 1.09 Page #1
Protocol #: 2 Pw H3 20cc #405828 User : 5268

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	6.09
Region B:	2.0	- 18.6	0	0.0	5.98
Region C:	40.0	- 2000	0	0.0	10.90

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
09-TF-654 FOSTER(30-15)5
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\PROT.DAT
Count Data Filename: c:\data\SDATA2.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	6.09	5.98	3	B	607.31		0.00	10.90
0	2.00	1273.51	1181.03	0		590.29	3047.53	261.37	0.00
1	2.00	0.00	0.00	0		641.10	0.00	0.00	0.62
2	2.00	1.91	1.52	0		638.47	4.37	9.86	0.10
3	2.00	3.91	3.77	0		586.76	9.38	11.39	1.10
4	2.00	0.00	0.00	0		601.04	0.00	0.00	0.00
5	2.00	4.91	4.52	0		601.63	11.62	11.75	0.60

RADIOLOGICAL SURVEY DATA SHEET

30-16 P1

LOCATION: (BLDG./AREA/ROOM) Bldg 63	SURVEY NO. 99TF-1103
PURPOSE: Misc Copper Strips Survey for free Release	RWP NO. N/A
	DATE: 9-16-99
	TIME: 0930

MAP/DRAWING

Direct Readings taken on or near Swipe location
< 100 dpm/100cm² α
< 5000 dpm/100cm² β

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
□# = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5375/5374	1-24-00
	N	
	(H)	

[redacted]

HP# 7794	Date: 9-16-99
HP# 5681	Date: 9/16/99
HP# 6057	Date: 9-29-99

ML-9620 (2-98)

Survey No. 99TF-1103

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RADIOLOGICAL SURVEY DATA SHEET (cont.)

2 of 4

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See attached for Copper Strips			
2	Results			
3				
4				
5				
		N		
		N		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N		
		N		

COMMENTS: all Swipes Qual Checked < 1000 dpm/100cm² per NE Electrical

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Alpha/Beta Analysis

Batch ID: 99-TF-1103 WARNER BLDG.63 (5) CYR

Batch File: Smear Unit 1 - 199909161425

Group: 1

Device: Unit 1

Geometry: Swipe/Smear

Serial Number: 64937

Acquisition Date: 9/16/1999

Count Time (min): 1.5

Recalibration Date: 5/17/2000

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	113	1.31	3.64	0.00	4.04
2	23	0.00	0.71	6.23	6.67
3	31	0.00	0.71	0.00	3.41
4	4	0.00	0.71	1.91	5.07
5	24	0.00	0.71	0.82	4.58

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	18.6	0	0.0	5.80
Region B:	2.0	18.6	0	0.0	5.67
Region C:	40.0	2000	0	0.0	13.36

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
99-TF-1103 WARNER BLDG.63 (30-16 S1-S5) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT1.DAT
Count Data Filename: C:\DATA\SDATA1.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	5.80	5.67	13.36	550.37	3	B		0.00
0	2.00	1119.44	1077.51	1.64	593.04	0		2427.05	205.31
1	2.00	0.70	0.58	0.00	587.48	0		1.52	8.53
2	2.00	0.70	0.55	0.00	604.37	0		1.49	8.40
3	2.00	5.04	4.63	0.00	599.55	0		10.86	10.59
4	2.00	2.83	2.47	0.00	527.43	0		6.53	10.22
5	2.00	7.61	7.75	2.14	544.11	0		17.27	12.32

RADIOLOGICAL SURVEY DATA SHEET

W1-W46 f
30-16

LOCATION: (BLDG./AREA/ROOM) Bldg 63	SURVEY NO. 99TF-1104.
PURPOSE: Misc Push Bars - Door locks Door/Doorframe Surveyed for file Release.	RWP NO. N/A
	DATE: 9-16-99
	TIME: 1000

MAP/DRAWING

Direct Readings taken on or near Swipe locations
< 100dpm/100cm² α
< 5000dpm/100cm² β.

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5374/5375	1-24-00
	N	

[redacted]

HP# 7794	Date: 9-16-99
HP# 5681	Date: 9/16/99
HP# 6057	Date: 9-29-99

[redacted]

ML-9620 (2-98)

Survey No. 99TF-1104

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RADIOLOGICAL SURVEY DATA SHEET (cont.)

2 of 6 -

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See attached			Push Bars
2	for Results			
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				Door handles
16				
17				
18				
19				
20				
21				
22				Door Knob
23				Misc Pr locks
24				
25				
26				
27				
28				
29				
30				
31				
32				Push Bars
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	See attached			Misc Dr Pcs
37	for Results			
38				
39				Door
40				
41				
42				
43				
44				Dr frame
45				
46				

N

D

COMMENTS: All Swipes fixed Counted Per NE Electra < 1000 dpm/100cm²

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Alpha/Beta Analysis

Batch ID: 99-TF-1104 WARNER BLDG.63 (46) CYR

Batch File: Smear Unit 3 - 199909161420

Group: B

Device: Unit 3

Geometry: Swipe/Smear

Serial Number: 59123

Acquisition Date: 9/16/1999

Count Time (min): 1.5

Recalibration Date: 5/17/2000

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	27	0.00	1.06	1.15	4.65
2	105	0.00	1.06	1.15	4.65
3	86	1.48	4.72	1.14	4.65
4	136	0.00	1.06	2.43	5.31
5	132	0.00	1.06	1.15	4.65
6	33	1.48	4.72	1.14	4.65
7	92	1.48	4.72	1.14	4.65
8	136	1.48	4.72	0.00	3.89
9	22	0.00	1.06	2.43	5.31
10	96	0.00	1.06	0.00	2.93
11	143	0.00	1.06	2.43	5.31
12	46	0.00	1.06	0.00	3.89
13	23	0.00	1.06	1.15	4.65
14	58	3.78	6.58	1.13	4.65
15	68	1.48	4.72	2.42	5.31
16	32	3.78	6.58	2.41	5.31
17	53	0.00	1.06	0.00	3.89
18	73	0.00	1.06	3.71	5.89
19	85	1.47	4.72	6.25	6.91
20	11	1.48	4.72	3.70	5.89
21	29	0.00	1.06	0.00	3.89
22	9	0.00	1.06	4.98	6.42
23	133	1.48	4.72	3.70	5.89

39/6

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
24	46	0.00	1.07	7.54	7.37
25	116	1.48	4.72	3.70	5.89
26	90	1.48	4.72	3.70	5.89
27	148	8.38	9.25	0.00	3.90
28	10	6.08	8.03	0.00	3.89
29	20	1.48	4.72	0.00	3.89
30	19	0.00	1.06	1.15	4.65
31	130	0.00	1.06	0.00	3.89
32	41	0.00	1.06	0.00	3.89
33	6	1.48	4.72	3.70	5.89
34	115	0.00	1.06	2.43	5.31
35	127	1.48	4.72	0.00	3.89
36	43	1.48	4.72	1.14	4.65
37	139	1.48	4.72	2.42	5.31
38	113	0.00	1.06	1.15	4.65
39	7	0.00	1.06	1.15	4.65
40	123	1.49	4.72	0.00	2.93
41	81	1.48	4.72	1.14	4.65
42	18	0.00	1.06	2.43	5.31
43	91	0.00	1.06	0.00	3.89
44	111	1.48	4.72	0.00	3.89
45	61	1.48	4.72	3.70	5.89
46	37	0.00	1.06	1.15	4.65

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
Region A:	0.5 -	18.6	0	0.0	6.36
Region B:	2.0 -	18.6	0	0.0	6.29
Region C:	40.0 -	2000	0	0.0	11.40

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
99-TF-1104 WARNER BLDG.63 (30-16 W1-W46) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT6.DAT
Count Data Filename: C:\DATA\SDATA6.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	6.36	6.29	11.40	543.01	2	B		0.00
0	2.00	1160.82	1121.12	4.10	580.93	0		2545.10	214.34
1	2.00	0.00	0.00	0.00	582.80	0		0.00	0.00
2	2.00	0.64	0.71	0.10	555.48	0		1.44	9.13
3	2.00	1.14	0.70	0.00	590.75	0		2.48	9.10
4	2.00	2.14	2.21	0.00	582.28	0		4.69	9.69
5	2.00	1.14	1.21	0.00	537.90	0		2.61	9.57
6	2.00	0.83	0.70	3.60	560.54	0		1.85	9.19
7	2.00	0.00	0.00	0.04	560.60	0		0.00	0.00
8	2.00	0.00	0.00	1.60	443.75	0		0.00	0.00
9	2.00	1.64	1.20	0.00	589.38	0		3.57	9.37
10	2.00	0.00	0.00	0.00	484.56	0		0.00	0.00
11	2.00	0.14	0.04	0.00	541.25	0		0.32	8.98
12	2.00	0.00	0.00	0.00	507.04	0		0.00	0.00
13	2.00	0.39	0.00	1.10	563.89	0		0.86	8.92
14	2.00	0.08	0.15	0.00	545.64	0		0.18	8.90
15	2.00	3.14	2.71	0.10	597.84	0		6.78	10.03
16	2.00	0.00	0.00	0.00	572.27	0		0.00	0.00
17	2.00	0.00	0.00	0.00	485.29	0		0.00	0.00
18	2.00	0.00	0.00	0.00	554.50	0		0.00	0.00
19	2.00	0.00	0.00	0.00	536.57	0		0.00	0.00
20	2.00	0.14	0.21	0.00	593.46	0		0.31	8.54
21	2.00	1.14	1.21	0.10	562.96	0		2.55	9.34
22	2.00	0.14	0.21	1.10	586.80	0		0.31	8.60
23	2.00	0.46	0.37	0.00	538.46	0		1.05	9.18
24	2.00	2.14	1.88	0.00	629.93	0		4.49	9.28
25	2.00	0.00	0.00	0.00	600.32	0		0.00	0.00
26	2.00	0.64	0.71	0.00	501.23	0		1.52	9.63
27	2.00	0.00	0.00	0.00	496.11	0		0.00	0.00
28	2.00	0.64	0.71	0.00	608.21	0		1.37	8.70
29	2.00	2.14	2.21	0.10	656.86	0		4.39	9.06
30	2.00	6.14	6.20	0.00	451.15	0		15.55	13.34
31	2.00	0.00	0.00	0.00	524.41	0		0.00	0.00
32	2.00	2.34	2.41	0.00	591.19	0		5.09	9.71
33	2.00	0.03	0.00	0.00	602.41	0		0.07	8.41
34	2.00	0.00	0.03	0.10	627.55	0		0.00	0.00
35	2.00	0.00	0.00	0.00	620.52	0		0.00	0.00

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
36	2.00	0.00	0.00	0.00	497.36	0		0.00	0.00
37	2.00	0.00	0.00	0.00	461.56	0		0.00	0.00
38	2.00	0.00	0.00	0.10	440.00	0		0.00	0.00
39	2.00	0.39	0.46	0.00	445.32	0		1.00	10.23
40	2.00	1.14	1.05	0.00	539.04	0		2.61	9.56
41	2.00	0.90	0.97	0.60	534.74	0		2.06	9.46
42	2.00	1.14	1.21	0.00	552.98	0		2.57	9.43
43	2.00	3.14	2.42	1.10	607.66	0		6.72	9.94
44	2.00	0.00	0.00	0.00	502.17	0		0.00	0.00
45	2.00	0.00	0.00	0.10	516.61	0		0.00	0.00
46	2.00	0.00	0.00	1.39	454.19	0		0.00	0.00

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg 63 W	SURVEY NO. 99TF-1157
PURPOSE: Survey for free Release Misc equipt.	RWP NO. N/A
	DATE: 9-29-99
	TIME: 0900

MAP/DRAWING

Direct Readings taken on or near swipe locations
< 100 dpm / 100cm²
< 5000 dpm / 100cm²

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
□# = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5362/5347	1-31-00
	N	

[redacted]

HP#	Date:
7794	9-29-99
[redacted]	
HP# 5681	Date: 10/4/99
HP# 6057	Date: 10-11-99

ML-9620 (2-98)

received 59 1.

Survey No. 99TF-1157

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See attached			CABIN/HATCH 7994 0/S
2	for Results			0/S
3				0/S
4				1/S
5				1/S
6				1/S
7				Paper Loader 98534
8				
9				P110244 0/S
10				1/S
11				0/S
12				0/S
13				Area MOTOR 1/S
14				Paper L 98534 1/S
15				CORK Brd
16				
17				lil fridge 0/S
18				MOTOR Area 1/S
19				1/S
20				1/S
21				105354 GLOVE BOX 0/S
22				0/S
23				0/S
24				0/S
25				1/S
26				VACUUM AREA 1/S
27				VACUUM 1/S
28				oven 98802 0/S
29				0/S
30				1/S
31				1/S
32				HOSE ADAPTER
33				Black Cab 0/S
34				0/S
35				1/S

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	See attached			Black Cab 1/S
37	for Results			filing Cab 2
38				2
39				2
40				3
41				3
42				3
43				4
44				4
45				4
46				4
47				erec Tower Top
48				Leg
49				erec Draw Brd
50				
51				Sm file Cab
52				
53				Chairs
54				
55				
56				
57				
58				
59				filing #1
60				1

N

A

COMMENTS: Swipes taken per NE Electra <1000dpm/100cm²

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Alpha/Beta Analysis

Batch ID: 99-TF-1157 WARNER/RENNIE BLDG.63W (60) CYR

Batch File: Smear Unit 2 - 199910041106
Group: A
Device: Unit 2
Geometry: Swipe/Smear
Serial Number: 59544

Acquisition Date: 10/4/1999
Count Time (min): 1.5
Recalibration Date: 5/17/2000

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	79	0.00	1.20	1.52	4.71
2	132	0.91	4.32	4.11	5.97
3	94	0.00	1.20	1.52	4.71
4	93	2.99	5.99	1.50	4.71
5	55	7.14	8.39	1.49	4.71
6	56	0.91	4.32	1.51	4.71
7	27	2.99	5.99	2.80	5.38
8	136	0.90	4.33	8.01	7.48
9	24	0.91	4.32	2.81	5.38
10	98	0.89	4.33	10.61	8.34
11	84	0.91	4.32	2.81	5.38
12	25	0.90	4.32	5.41	6.51
13	88	0.89	4.33	9.31	7.92
14	142	0.91	4.32	1.51	4.71
15	129	0.90	4.32	5.41	6.51
16	136	0.90	4.32	6.71	7.01
17	93	0.00	1.21	6.72	7.01
18	4	0.91	4.32	4.11	5.97
19	35	0.92	4.32	0.21	3.92
20	125	0.91	4.32	1.51	4.71
21	15	0.00	1.20	1.52	4.71
22	12	0.92	4.32	0.21	3.92
23	1	7.14	8.39	1.49	4.71

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Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
24	56	0.00	1.20	0.22	3.92
25	150	2.99	5.99	0.20	3.92
26	99	5.05	7.29	6.69	7.02
27	8	0.91	4.32	2.81	5.38
28	119	0.00	1.20	2.82	5.38
29	7	0.00	1.22	8.02	7.48
30	30	5.06	7.29	1.49	4.71
31	112	9.21	9.36	5.38	6.52
32	10	2.99	5.99	0.20	3.92
33	38	0.90	4.32	6.71	7.01
34	85	0.91	4.32	4.11	5.97
35	102	7.13	8.39	4.09	5.98
36	23	2.99	5.99	2.80	5.38
37	16	0.00	1.20	0.22	3.92
38	53	0.00	1.21	5.42	6.51
39	113	2.99	5.99	0.20	3.92
40	7	5.06	7.29	4.09	5.98
41	46	5.07	7.29	0.19	3.93
42	24	5.06	7.29	4.09	5.98
43	33	0.00	1.20	0.00	2.94
44	139	2.98	5.99	4.10	5.97
45	7	5.06	7.29	4.09	5.98
46	39	2.98	5.99	4.10	5.97
47	148	2.99	5.99	0.20	3.92
48	7	0.90	4.32	5.41	6.51
49	70	2.98	5.99	4.10	5.97
50	40	0.91	4.32	2.81	5.38
51	70	2.98	5.99	4.10	5.97
52	33	0.00	1.21	5.42	6.51
53	68	2.98	5.99	5.40	6.52
54	128	0.91	4.32	1.51	4.71
55	85	0.00	1.20	0.22	3.92

99-TF-1157
Page 4 of 7

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
56	133	0.00	1.20	0.22	3.92
57	103	0.00	1.20	0.22	3.92
58	128	0.00	1.20	2.82	5.38
59	24	0.00	1.20	1.52	4.71

99-TT-1157 /
PAGE 5 OF 7

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2SI	BKG
Region A:	0.5 -	18.6	0	0.0	7.10
Region B:	2.0 -	18.6	0	0.0	6.92
Region C:	40.0 -	2000	0	0.0	11.61

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
99-TF-1157 WARNER BLDG.63W (30-16 Y1-Y59) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT7.DAT
Count Data Filename: C:\DATA\SDATA7.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	7.10	6.92	11.61	571.42	3	B		0.00
0	2.00	1148.11	1107.79	0.00	575.82	0		2529.29	213.32
1	2.00	1.40	0.80	0.00	603.07	0		3.02	9.57
2	2.00	0.00	0.00	0.00	424.16	0		0.00	0.00
3	2.00	0.00	0.08	0.00	564.40	0		0.00	0.00
4	2.00	0.00	0.00	0.89	448.80	0		0.00	0.00
5	2.00	1.18	0.22	0.00	527.73	0		2.72	10.16
6	2.00	0.00	0.00	0.39	574.98	0		0.00	0.00
7	2.00	0.00	0.00	0.00	480.63	0		0.00	0.00
8	2.00	0.00	0.00	0.00	478.14	0		0.00	0.00
9	2.00	1.53	1.39	0.00	538.25	0		3.50	10.24
10	2.00	0.00	0.00	1.89	565.96	0		0.00	0.00
11	2.00	0.00	0.00	1.39	543.49	0		0.00	0.00
12	2.00	0.00	0.04	1.89	385.16	0		0.00	0.00
13	2.00	0.00	0.00	0.00	341.68	10		0.00	0.00
14	2.00	0.00	0.00	0.00	395.12	0		0.00	0.00
15	2.00	0.90	1.08	0.00	563.07	0		2.02	9.68
16	2.00	2.40	2.27	0.00	535.49	0		5.50	10.71
17	2.00	0.00	0.08	1.73	439.05	0		0.00	0.00
18	2.00	3.40	3.58	0.00	491.26	0		8.16	11.71
19	2.00	0.00	0.00	0.39	408.56	0		0.00	0.00
20	2.00	0.40	0.52	0.39	482.87	0		0.98	10.23
21	2.00	1.70	1.87	0.00	447.82	0		4.31	11.50
22	2.00	0.00	0.00	0.00	344.72	0		0.00	0.00
23	2.00	0.00	0.00	0.00	274.27	0		0.00	0.00
24	2.00	0.00	0.00	0.00	337.51	0		0.00	0.00
25	2.00	0.00	0.00	1.89	592.87	0		0.00	0.00
26	2.00	0.00	0.00	0.00	267.79	0		0.00	0.00
27	2.00	0.00	0.00	0.00	321.33	0		0.00	0.00
28	2.00	0.00	0.00	0.00	390.87	0		0.00	0.00
29	2.00	0.00	0.00	0.00	476.76	0		0.00	0.00
30	2.00	0.00	0.00	0.00	411.59	0		0.00	0.00
31	2.00	1.81	1.99	0.00	448.46	0		4.60	11.55
32	2.00	0.00	0.00	0.00	352.18	0		0.00	0.00
33	2.00	0.00	0.00	0.00	380.63	0		0.00	0.00
34	2.00	0.00	0.00	0.00	454.79	0		0.00	0.00
35	2.00	0.40	0.58	0.89	381.88	0		1.15	11.98

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM FLAG	DPM1	2SIGMA
36	2.00	0.00	0.00	0.39	519.29	0	0.00	0.00
37	2.00	0.00	0.00	0.89	456.70	0	0.00	0.00
38	2.00	0.00	0.00	0.00	503.17	0	0.00	0.00
39	2.00	0.00	0.00	0.00	538.35	0	0.00	0.00
40	2.00	0.00	0.07	3.89	400.34	0	0.00	0.00
41	2.00	1.51	1.68	3.39	555.46	0	3.38	10.06
42	2.00	2.20	2.21	1.89	536.91	0	5.02	10.59
43	2.00	0.00	0.00	3.39	455.91	0	0.00	0.00
44	2.00	0.28	0.00	0.00	512.30	0	0.67	9.82
45	2.00	1.90	2.08	3.39	608.11	0	4.07	9.77
46	2.00	0.00	0.00	5.93	565.25	0	0.00	0.00
47	2.00	1.38	1.38	0.00	547.95	0	3.12	10.07
48	2.00	0.00	0.00	0.13	400.63	0	0.00	0.00
49	2.00	0.00	0.00	0.00	365.74	0	0.00	0.00
50	2.00	0.90	0.91	0.00	546.20	0	2.05	9.84
51	2.00	0.40	0.58	1.89	550.57	0	0.91	9.53
52	2.00	0.00	0.00	0.00	576.43	0	0.00	0.00
53	2.00	1.40	1.23	0.00	638.06	0	2.91	9.27
54	2.00	0.00	0.03	0.00	606.09	0	0.00	0.00
55	2.00	0.00	0.00	0.00	558.29	0	0.00	0.00
56	2.00	0.48	0.65	0.00	553.64	0	1.07	9.54
57	2.00	0.00	0.00	5.39	570.52	0	0.00	0.00
58	2.00	0.00	0.00	0.39	568.78	0	0.00	0.00
59	2.00	4.40	4.58	0.00	644.92	0	9.11	10.54

30-16 F1

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 63	SURVEY NO. RMTF-1150
PURPOSE: SPOT CHECK MMCIC EQUIPMENT	RWP NO. N/A
	DATE: 9/30/99
	TIME: 0715

MAP/DRAWING

SURVEYED MISC. ELECTRICAL EQUIPMENT IN BLDG. 63 (FOR RELEASE TO MMCIC) PRIOR TO IT BEING REMOVED FROM SITE. ITEMS IN A NON-RADIOLOGICALLY POSTED AREA.

DIRECT FRISK OF EXTERNAL SURFACES OF ITEMS:

< 100 dpm/100 cm² OR FRISK AREA α

< 5000 dpm/100 cm² OR FRISK AREA β⁻

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA w/ DP	5366/5367	3/8/00

[redacted]

HP# 7737	Date: 9/30/99
HP# 5681	Date: 9/30/99
HP# 6057	Date: 10-11-99

Reviewed/Approved by: (Print Name) [redacted]

ML-9620 (2-98)

Survey No. 99-TF-1150

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
	Swipes (dpm/100cm²)			
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED SHEETS			DOE 203460
2				MATC006055
3				MATC00 2728
4				S.C.D. #1
5				MATC00 2860
6				MONITORS 1 & 2
7				MATC002900
8				MATC00 3508
9				HP 9000/300
10				MATC005968
11				MATC00 3300
12				KEYBOARD & MATC003531
13				MATC00 4148
14				MATC00 4148B
15				MATC003526
16				PT4039 #1
17				ECTRON AMP #1
18				MATC00 9384
19				MATC002773
20				MATC004083
21				MATC002847
22				MATC00 2986
23				MATC00 2330
24				MATC003434
25				MATC00 3020
26				MATC00 3519
27				MATC00 5859
28				ICS ISOBUS EXP. #1
29				PANA TUNER/TIMER
30				PANA VHS
31				MATC003424
32				MATC003442
33				MATC003423
34				TYPEWRITER #1
35				T-1 CORD/P.S.

Removable Contamination				
	Swipes (dpm/100cm²)			
Sample #	β/γ	Alpha	Tritium	Comments
36	SEE ATTACHED SHEETS			MATC00 3469
N/A				

COMMENTS: N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Alpha/Beta Analysis

Batch ID: 99-TF-1150 TOMLINSON BLDG.63 (36) CYR

Batch File: Smear Unit 2 - 199909301402

Group: I

Device: Unit 2

Geometry: Swipe/Smear

Serial Number: 59544

Acquisition Date: 9/30/1999

Count Time (min): 1.5

Recalibration Date: 5/17/2000

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	20	0.00	1.21	5.42	6.51
2	19	0.00	1.20	4.12	5.97
3	130	0.91	4.32	1.51	4.71
4	41	2.98	5.99	5.40	6.52
5	6	0.00	1.20	1.52	4.71
6	115	0.00	1.20	1.52	4.71
7	127	5.07	7.29	0.19	3.93
8	18	0.00	1.21	5.42	6.51
9	81	0.92	4.32	0.21	3.92
10	123	0.91	4.32	1.51	4.71
11	43	2.98	5.99	5.40	6.52
12	139	0.91	4.32	1.51	4.71
13	131	0.90	4.32	5.41	6.51
14	89	0.00	1.20	0.22	3.92
15	47	0.00	1.20	4.12	5.97
16	40	0.92	4.32	0.00	2.94
17	42	0.92	4.32	0.00	2.94
18	70	0.91	4.32	2.81	5.38
19	66	2.99	5.99	2.80	5.38
20	38	0.00	1.20	2.82	5.38
21	138	0.92	4.32	0.21	3.92
22	142	0.00	1.20	2.82	5.38
23	31	2.99	5.99	1.50	4.71

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
24	9	2.99	5.99	1.50	4.71
25	90	0.00	1.21	5.42	6.51
26	73	2.99	5.99	0.20	3.92
27	40	0.90	4.32	6.71	7.01
28	70	2.98	5.99	5.40	6.52
29	128	0.00	1.20	0.00	2.94
30	140	0.00	1.20	2.82	5.38
31	23	0.00	1.22	9.32	7.92
32	145	0.92	4.32	0.21	3.92
33	22	5.07	7.29	0.19	3.93
34	136	2.99	5.99	0.20	3.92
35	56	0.00	1.21	6.72	7.01
36	27	7.11	8.40	14.49	9.48

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
Region A:	0.5	18.6	0	0.0	7.28
Region B:	2.0	18.6	0	0.0	7.09
Region C:	40.0	2000	0	0.0	13.70

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
99-TF-1150 TOMLINSON BLDG.63 (30-16 T1-T36) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT7.DAT
Count Data Filename: C:\DATA\SDATA7.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	7.28	7.09	13.70	573.19	4	B		0.00
0	2.00	1162.94	1125.14	0.30	585.34	0		2539.38	213.84
1	2.00	1.05	0.47	0.00	598.88	0		2.26	9.56
2	2.00	0.00	0.00	0.00	629.53	0		0.00	0.00
3	2.00	0.00	0.00	0.00	639.47	0		0.00	0.00
4	2.00	0.00	0.00	0.00	615.15	0		0.00	0.00
5	2.00	0.00	0.00	0.00	569.06	0		0.00	0.00
6	2.00	0.72	0.91	0.00	557.27	0		1.61	9.77
7	2.00	0.00	0.00	0.00	560.21	0		0.00	0.00
8	2.00	5.22	4.76	0.00	628.16	0		10.96	11.14
9	2.00	2.09	1.95	0.00	631.02	0		4.39	9.77
10	2.00	2.22	2.41	0.00	624.86	0		4.68	9.88
11	2.00	0.00	0.00	0.00	601.81	0		0.00	0.00
12	2.00	0.22	0.41	0.00	616.45	0		0.47	9.00
13	2.00	0.00	0.00	0.00	590.22	0		0.00	0.00
14	2.00	1.72	1.58	0.00	630.44	0		3.61	9.61
15	2.00	0.00	0.00	0.00	599.29	0		0.00	0.00
16	2.00	0.00	0.00	0.00	638.36	0		0.00	0.00
17	2.00	0.22	0.41	0.00	639.42	0		0.46	8.82
18	2.00	0.00	0.00	0.00	610.79	0		0.00	0.00
19	2.00	2.22	1.91	3.58	620.24	0		4.70	9.93
20	2.00	0.00	0.00	0.00	609.42	0		0.00	0.00
21	2.00	6.45	6.14	0.00	651.80	0		13.26	11.39
22	2.00	0.65	0.84	0.00	634.32	0		1.36	9.07
23	2.00	0.00	0.00	0.15	562.98	0		0.00	0.00
24	2.00	2.72	2.91	0.00	498.13	0		6.46	11.40
25	2.00	0.00	0.00	0.00	607.68	0		0.00	0.00
26	2.00	0.00	0.00	0.00	624.71	0		0.00	0.00
27	2.00	0.09	0.28	0.00	630.60	0		0.18	8.82
28	2.00	0.00	0.00	0.00	616.62	0		0.00	0.00
29	2.00	2.72	2.91	0.00	642.19	0		5.64	9.96
30	2.00	0.65	0.26	0.00	552.78	0		1.47	9.78
31	2.00	2.22	2.41	0.00	646.07	0		4.59	9.70
32	2.00	0.00	0.00	0.00	460.01	0		0.00	0.00
33	2.00	0.00	0.00	0.00	571.60	0		0.00	0.00
34	2.00	0.00	0.00	1.30	517.21	0		0.00	0.00
35	2.00	0.72	0.91	0.00	601.50	0		1.55	9.38

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM FLAG	DPM1	2SIGMA
36	2.00	0.22	0.23	0.00	546.39	0	0.50	9.61

30-16 PD

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) B63	SURVEY NO. 99-TF-1149
PURPOSE: SPOTCHECK MMCIC MATERIALS	RWP NO. N/A
	DATE: 9-30-99
	TIME: 1100

MAP/DRAWING

SURVEY OF PARTS, MATERIALS + EQUIPMENT LOCATED IN B63 PRIOR TO REMOVAL FROM SITE. ITEMS NOT EXPOSED TO RADIOACTIVE CONTAMINATION.

B63 IS NOT A RADIOLOGICAL AREA, CONTROLLED AREA OR A RADIOLOGICALLY RELATED AREA.

DIRECT FRISK OF ITEMS:

< 5000 dpm/100cm² β

< 100 dpm/100cm² α

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5402/5420	3-15-00

[redacted]

HP#	Date:
7752	9-30-99
[redacted]	
HP# 5681	Date: 9/30/99
HP# 6057	Date: 10-11-99

ML-9620 (2-98)

Survey No. 99-TF-1149

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				MONITOR C009388
2				MONITOR C009389
3				BOX
4				COMPUTER C00987
5				↓
6				PRINTER C005847
7				PRINTER
8				COMPUTER C003465
9				MONITOR C005276
10				TEKTRONIX
11				PRINTER
12				PRINTER
13				KB C005926
14				UNITRON C007688
15				ALARM BOX
16				METTLER C003456
17				COMPUTER C003402
18				HV PWR SLY C007888
19				CNST PWR SLY C005964
20				ROTARY SW
21				COMPUDAS C003203
22				RACK C002574
23				DISC PRV C005731
24				COMPUTER C003468
25				↓
26				↓
27				↓
28				TECHMAR
29				RACK COMP. SYS.
30				↓
31				PLOTTER C002911
32				PLOTTER C002831
33				BOX C9372
34				SPEEDOMAX 7965
35				CHT RCDR 9370

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				P. INTERFACE C003496
37				PANAFAX C002596
38				DESK
39				COMPUTER C009371
40				COMPUTER C008013
41				FLOPPY CASE
42				↓
43				FILE CABINET
44				↓
45				↓
46				UB0304-002
47				↓
48				KEYBOARD
49				MONITOR
50				PAPER TRAY
51				MONITOR C003337
52				MONITOR
53				INTERFACE BOX
54				DRILL PRESS C0020
55				↓
56				MONITOR W/PEN
57				COMPUTER
58				BENTHY C003525
59				BOX C004992
60				MONITOR
61				MONITOR
62				BOX-DISCS
63				MONITOR
64				PWR SUPPLY C005963
65				O-SCOPE C00328
66				ORION C008959
67				COMPUTER 02776
68				COMPUTER C004905
69				VOLT BOX
70				MT1034-701

COMMENTS: FIELD COUNT OF SMEARS: < 1000dpm/100cm² α+β

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Alpha/Beta Analysis

Batch ID: 99-TF-1149 RENNIE BLDG.3 (70) CYR

Batch File: Smear Unit 3 - 199909301351

Group: A

Device: Unit 3

Geometry: Swipe/Smear

Serial Number: 59123

Acquisition Date: 9/30/1999

Count Time (min): 1.5

Recalibration Date: 5/17/2000

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	136	0.00	1.06	0.00	3.89
2	129	3.78	6.58	1.13	4.65
3	142	0.00	1.06	1.15	4.65
4	93	1.48	4.72	0.00	3.89
5	78	3.78	6.58	2.41	5.31
6	29	0.00	1.06	2.43	5.31
7	140	0.00	1.06	4.98	6.42
8	57	0.00	1.06	2.43	5.31
9	14	0.00	1.06	3.71	5.89
10	44	8.37	9.25	2.39	5.31
11	113	1.46	4.72	10.08	8.20
12	9	6.06	8.03	7.51	7.37
13	59	6.08	8.03	0.00	3.89
14	70	1.48	4.72	0.00	3.89
15	111	1.48	4.72	3.70	5.89
16	55	3.78	6.58	2.41	5.31
17	143	1.47	4.72	6.25	6.91
18	133	3.77	6.59	3.69	5.89
19	31	0.00	1.06	4.98	6.42
20	21	1.48	4.72	3.70	5.89
21	94	1.48	4.72	0.00	3.89
22	12	0.00	1.06	2.43	5.31
23	144	1.47	4.72	4.97	6.42

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Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
24	115	1.47	4.72	4.97	6.42
25	2	1.48	4.72	3.70	5.89
26	61	3.78	6.58	1.13	4.65
27	3	3.78	6.58	1.13	4.65
28	84	3.76	6.59	7.52	7.37
29	39	0.00	1.06	2.43	5.31
30	142	3.77	6.59	4.97	6.42
31	132	0.00	1.06	2.43	5.31
32	66	1.48	4.72	3.70	5.89
33	114	1.48	4.72	0.00	3.89
34	124	0.00	1.06	3.71	5.89
35	81	3.77	6.59	3.69	5.89
36	22	3.78	6.58	1.13	4.65
37	137	0.00	1.06	0.00	3.89
38	2	1.48	4.72	3.70	5.89
39	114	0.00	1.06	2.43	5.31
40	89	1.48	4.72	0.00	3.89
41	146	0.00	1.06	1.15	4.65
42	30	1.48	4.72	3.70	5.89
43	10	1.47	4.72	6.25	6.91
44	20	3.77	6.59	4.97	6.42
45	24	8.37	9.25	4.95	6.43
46	11	3.78	6.58	0.00	3.89
47	85	0.00	1.06	2.43	5.31
48	133	3.77	6.59	6.24	6.91
49	68	0.00	1.06	1.15	4.65
50	29	1.46	4.72	8.81	7.80
51	89	3.78	6.58	0.00	3.89
52	11	1.48	4.72	2.42	5.31
53	36	1.49	4.72	0.00	2.93
54	107	0.00	1.06	0.00	3.89
55	141	1.48	4.72	1.14	4.65

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
56	79	0.00	1.06	4.98	6.42
57	132	0.00	1.06	4.98	6.42
58	94	1.48	4.72	3.70	5.89
59	93	0.00	1.06	1.15	4.65
60	55	1.47	4.72	4.97	6.42
61	128	3.78	6.58	2.41	5.31
62	85	0.00	1.06	0.00	2.93
63	103	1.48	4.72	3.70	5.89
64	128	0.00	1.06	3.71	5.89
65	24	1.48	4.72	2.42	5.31
66	127	0.00	1.06	3.71	5.89
67	93	1.48	4.72	3.70	5.89
68	34	1.48	4.72	3.70	5.89
69	18	0.00	1.06	3.71	5.89
70	39	8.36	9.25	6.23	6.91

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Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2SI	BKG
Region A:	0.5	18.6	0	0.0	6.51
Region B:	2.0	18.6	0	0.0	6.01
Region C:	40.0	2000	0	0.0	12.24

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
99-TF-1149 RENNIE BLDG.3 (30-16 U1-U70) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT5.DAT
Count Data Filename: C:\DATA\SDATA5.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	6.51	6.01	12.24	581.10	2	B		0.00
0	2.00	772.59	742.97	0.00	585.73	0		1686.38	150.58
1	2.00	1.49	1.74	0.00	583.01	0		3.27	9.44
2	2.00	2.49	2.38	0.00	615.24	0		5.30	9.65
3	2.00	0.00	0.00	0.00	635.26	0		0.00	0.00
4	2.00	0.00	0.00	0.00	603.78	0		0.00	0.00
5	2.00	2.99	3.49	0.00	602.58	0		6.43	10.00
6	2.00	1.78	1.97	0.00	614.58	0		3.78	9.31
7	2.00	3.94	4.20	0.00	575.94	0		8.68	10.70
8	2.00	0.00	0.00	0.00	599.66	0		0.00	0.00
9	2.00	0.00	0.02	0.00	581.33	0		0.00	0.00
10	2.00	2.85	3.35	0.00	540.97	0		6.50	10.53
11	2.00	0.49	0.99	0.00	654.51	0		1.01	8.36
12	2.00	1.30	1.25	0.00	597.49	0		2.81	9.22
13	2.00	0.00	0.00	0.00	587.96	0		0.00	0.00
14	2.00	1.49	1.46	0.00	594.74	0		3.23	9.34
15	2.00	4.49	4.98	0.00	628.58	0		9.43	10.43
16	2.00	1.49	1.99	0.26	584.81	0		3.26	9.43
17	2.00	0.00	0.00	0.00	592.45	0		0.00	0.00
18	2.00	0.99	1.25	0.00	576.45	0		2.19	9.24
19	2.00	0.00	0.00	0.00	652.48	0		0.00	0.00
20	2.00	1.99	2.49	5.76	558.14	0		4.47	9.92
21	2.00	2.99	2.69	0.00	609.86	0		6.39	9.93
22	2.00	4.49	4.72	1.86	597.81	0		9.70	10.73
23	2.00	1.66	2.15	0.00	559.33	0		3.72	9.74
24	2.00	1.10	1.59	0.00	582.43	0		2.41	9.24
25	2.00	3.47	3.72	2.26	578.66	0		7.62	10.45
26	2.00	0.99	0.99	0.00	588.30	0		2.16	9.14
27	2.00	1.49	1.99	0.00	600.66	0		3.22	9.29
28	2.00	1.99	2.49	0.00	623.95	0		4.20	9.34
29	2.00	0.99	1.49	0.00	626.74	0		2.09	8.82
30	2.00	1.99	2.49	0.00	565.12	0		4.44	9.86
31	2.00	0.34	0.12	0.00	570.31	0		0.76	8.94
32	2.00	1.99	2.16	0.00	628.29	0		4.19	9.30
33	2.00	0.00	0.00	0.26	612.33	0		0.00	0.00
34	2.00	1.04	1.53	0.00	551.81	0		2.33	9.48
35	2.00	2.49	2.71	4.23	601.26	0		5.37	9.78

01 Oct 1999 02:10 ALPHA/BETA - 1.09 Page #2
Protocol #: 5 PW SCC H3 #403727 User : 56

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM FLAG	DPM1	2SIGMA
36	2.00	1.51	2.00	0.00	609.99	0	3.23	9.22
37	2.00	0.00	0.27	0.00	564.83	0	0.00	0.00
38	2.00	0.00	0.47	0.00	488.71	0	0.00	0.00
39	2.00	1.99	2.49	1.26	566.16	0	4.43	9.85
40	2.00	0.99	1.49	0.00	522.61	0	2.30	9.73
41	2.00	0.00	0.00	0.00	631.73	0	0.00	0.00
42	2.00	0.00	0.00	0.00	548.20	0	0.00	0.00
43	2.00	0.49	0.99	0.00	499.70	0	1.17	9.66
44	2.00	0.49	0.15	0.00	635.11	0	1.03	8.51
45	2.00	0.00	0.00	1.26	658.94	0	0.00	0.00
46	2.00	0.37	0.86	1.29	571.94	0	0.82	8.94
47	2.00	0.99	1.49	0.00	525.39	0	2.30	9.70
48	2.00	4.58	4.47	0.00	613.86	0	9.74	10.61
49	2.00	0.00	0.00	0.00	577.60	0	0.00	0.00
50	2.00	1.99	2.24	0.00	581.57	0	4.37	9.71
51	2.00	2.49	2.76	0.00	571.29	0	5.52	10.05
52	2.00	0.00	0.00	0.00	517.81	0	0.00	0.00
53	2.00	0.00	0.00	0.00	605.99	0	0.00	0.00
54	2.00	1.99	2.49	0.00	554.76	0	4.48	9.95
55	2.00	3.24	3.53	0.00	504.31	0	7.65	11.11
56	2.00	0.00	0.00	1.26	589.71	0	0.00	0.00
57	2.00	0.00	0.00	0.00	604.00	0	0.00	0.00
58	2.00	0.49	0.99	0.00	615.53	0	1.05	8.66
59	2.00	1.49	1.99	0.00	551.70	0	3.37	9.72
60	2.00	1.14	1.63	0.00	568.58	0	2.52	9.38
61	2.00	0.00	0.00	0.00	610.41	0	0.00	0.00
62	2.00	0.00	0.27	0.00	625.83	0	0.00	0.00
63	2.00	3.82	4.03	0.26	603.79	0	8.20	10.37
64	2.00	0.00	0.49	0.00	604.31	0	0.00	0.00
65	2.00	1.49	1.99	0.00	616.64	0	3.17	9.16
66	2.00	4.54	4.05	0.00	581.70	0	9.94	10.91
67	2.00	0.00	0.04	0.00	635.38	0	0.00	0.00
68	2.00	0.10	0.40	0.00	555.63	0	0.22	8.93
69	2.00	1.49	1.77	0.00	565.63	0	3.32	9.60
70	2.00	4.34	4.83	0.00	629.30	0	9.10	10.36

30-16 PJ

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg 63W	SURVEY NO. 99TF-1159
PURPOSE: Free Release Survey for Misc Equipt.	RWP NO. N/A
	DATE: 10-1-99
	TIME: 1000

MAP/DRAWING

RECEIVED COUNT ROOM RESULTS ON 10-5-99, SWIPE ON MARBLE TABLE #1, SWEAR# 42, INDICATES 15 dpm/100cm² & W/A CORRECTION (2σ) VALUE OF 12 dpm/100cm². INFORMED RPOC OF POSSIBLE LOOSE ALPHA CONTAMINATION > LIMITS, RESURVEYED TABLE ON RSDS # 99-TF-1161.

Direct Reading taken on or near Swipe location
<100dpM/100CM²
<5000 dpM/100CM².

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5120/5462	3-15-00
	RI	
	A	

[redacted]

HP#	Date:
7794/7062	10-1-99
[redacted]	
HP# 5681	Date: 10/4/99
HP# 6057	Date: 10-11-99
[redacted]	

ML-9620 (2-98)

Survey No. 99TF-1154

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination					
Swipes (dpm/100cm²)					
Sample #	β/γ	Alpha	Tritium	Comments	
1	See attached for			PROBE 57594	o/s
2	Results			↓ ↓	i/s
3				Brown Box	o/s
4				↓ MICRO LENS	i/s
5				COMP PARTS 0237	o/s
6				↓	i/s
7				COMP CORDS	o/s
8				COMP CORDS	i/s
9				Volt Met 96301	
10				~~Heath Kit~~ HRT00011134	
11				~~Heath Kit~~ P101615	
12				Conduit BASE	
13				Furct Heater	
14				↓	
15				Think Jet	
16				Briaud 507491	o/s
17				↓	i/s
18				VOLT MEG 4997	
19				Speedo MAX 7966	
20				OSCILLO CAMLOG 4960	
21				~~Hilar~~ Heavy 3538	
22				Cal Loop 5719	
23				5952	
24				Time B 2599	
25				Regist 8032	
26				Textron 3607	o/s
27				Pulse Gen	
28				Multi M	
29				~~Pulse Gen~~	
30				4977	
31				4135	
32				Conv. 3498	
33				Tage 4149	
34				Volt Meter	
35				4132	

Removable Contamination					
Swipes (dpm/100cm²)					
Sample #	β/γ	Alpha	Tritium	Comments	
36	See attached for			3019	
37		Results		Think Jet	
38				Power Cord	
39				6679	
40				TBASE 3517	
41				~~Volt Meter~~	
42				~~[illegible]~~	
43				1 2	
44				3	
45				4	
46				Tape. 25423	
47				Micro Scope	
48				Volt or 2740	
49				Pump	
50					
51					
52					
53				Iso Comp Gen	
54					
55					
56					
57				Probe 2842	
58					
59				Weldcraft	
60					

COMMENTS: Swipes taken per Nu Electra <1000 dpm/100cm²

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Alpha/Beta Analysis

Batch ID: 99-TF-1154 WARNER/RENNIE BLDG.63W (60) CYR

Batch File: Smear Unit 3 - 199910040906

Group: C

Device: Unit 3

Geometry: Swipe/Smear

Serial Number: 59123

Acquisition Date: 10/4/1999

Count Time (min): 1.5

Recalibration Date: 5/17/2000

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	129	0.00	1.06	0.00	3.89
2	14	1.48	4.72	1.14	4.65
3	30	1.48	4.72	3.70	5.89
4	46	1.48	4.72	3.70	5.89
5	23	1.48	4.72	2.42	5.31
6	143	3.77	6.59	4.97	6.42
7	114	0.00	1.06	0.00	3.89
8	84	1.48	4.72	3.70	5.89
9	144	1.48	4.72	1.14	4.65
10	119	1.49	4.72	0.00	2.93
11	148	1.47	4.72	6.25	6.91
12	17	1.47	4.72	4.97	6.42
13	35	3.78	6.58	2.41	5.31
14	34	3.78	6.58	1.13	4.65
15	86	0.00	1.06	1.15	4.65
16	89	6.06	8.03	6.23	6.91
17	7	0.00	1.06	1.15	4.65
18	12	3.78	6.58	0.00	3.89
19	95	6.08	8.03	0.00	2.94
20	83	0.00	1.06	1.15	4.65
21	10	6.07	8.03	4.96	6.42
22	5	1.48	4.72	3.70	5.89
23	33	0.00	1.06	2.43	5.31

99-TF-1154
Set 7

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
24	83	1.48	4.72	3.70	5.89
25	116	3.78	6.58	2.41	5.31
26	23	1.48	4.72	2.42	5.31
27	90	0.00	1.06	3.71	5.89
28	60	6.07	8.03	2.40	5.31
29	147	1.48	4.72	2.42	5.31
30	85	6.08	8.03	1.13	4.66
31	133	0.00	1.06	3.71	5.89
32	20	0.00	1.06	0.00	3.89
33	37	1.47	4.72	4.97	6.42
34	139	0.00	1.06	2.43	5.31
35	5	1.48	4.72	3.70	5.89
36	21	1.48	4.72	3.70	5.89
37	37	3.78	6.58	0.00	3.89
38	91	0.00	1.06	1.15	4.65
39	98	0.00	1.06	2.43	5.31
40	57	3.77	6.59	4.97	6.42
41	74	0.00	1.06	2.43	5.31
42	94	15.26	12.21	6.20	6.93
43	117	3.77	6.59	4.97	6.42
44	129	1.48	4.72	0.00	3.89
45	15	8.37	9.25	4.95	6.43
46	71	6.07	8.03	3.68	5.89
47	5	0.00	1.06	1.15	4.65
48	1	3.77	6.59	3.69	5.89
49	141	3.77	6.59	6.24	6.91
50	112	3.76	6.59	7.52	7.37
51	74	1.48	4.72	2.42	5.31
52	107	3.78	6.58	2.41	5.31
53	141	1.48	4.72	3.70	5.89
54	29	3.78	6.58	2.41	5.31
55	89	3.78	6.58	1.13	4.65

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
56	11	1.48	4.72	3.70	5.89
57	36	0.00	1.06	2.43	5.31
58	32	0.00	1.06	4.98	6.42
59	148	8.37	9.25	3.67	5.90
60	10	3.77	6.59	4.97	6.42

99-TE-1154

5 of 7

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2SI	BKG
Region A:	0.5	18.6	0	0.0	7.42
Region B:	2.0	18.6	0	0.0	7.25
Region C:	40.0	2000	0	0.0	13.30

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
99-TF-1154 WARNER/RENNIE BLD6.63W 30-16 X1-X60 CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT3.DAT
Count Data Filename: C:\DATA\SDATA3.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	7.42	7.25	13.30	566.94	1	B		0.00
0	2.00	1174.73	1124.76	6.20	591.48	0		2550.62	214.52
1	2.00	14.05	11.89	0.00	601.06	0		30.23	14.75
2	2.00	6.13	6.30	5.70	641.24	0		12.72	11.42
3	2.00	12.09	11.29	6.70	579.36	0		26.54	14.36
4	2.00	6.08	6.25	0.00	625.48	0		12.80	11.56
5	2.00	28.74	28.02	88.61	572.44	0		63.52	19.73
6	2.00	7.54	7.37	1.70	636.00	0		15.73	12.02
7	2.00	1.08	1.25	0.00	591.85	0		2.35	9.70
8	2.00	12.58	11.75	2.33	638.28	0		26.19	13.78
9	2.00	0.00	0.00	0.00	582.94	0		0.00	0.00
10	2.00	8.58	7.13	2.20	604.05	0		18.42	12.76
11	2.00	17.56	17.39	6.70	637.50	0		36.59	15.39
12	2.00	9.58	8.79	5.70	626.15	0		20.16	12.88
13	2.00	14.59	13.26	7.70	598.66	0		31.47	14.96
14	2.00	11.18	10.60	2.20	584.96	0		24.42	13.96
15	2.00	3.58	3.05	3.68	559.45	0		8.01	11.19
16	2.00	6.08	6.25	1.70	602.03	0		13.08	11.81
17	2.00	3.15	2.97	0.00	642.59	0		6.53	10.19
18	2.00	19.00	17.80	13.70	544.29	0		43.12	17.25
19	2.00	4.67	4.32	0.00	462.90	0		11.64	13.01
20	2.00	3.64	3.81	8.20	582.52	0		7.96	10.98
21	2.00	3.51	3.51	0.70	545.11	0		7.96	11.32
22	2.00	2.58	2.75	0.70	561.28	0		5.77	10.71
23	2.00	0.00	0.00	0.00	455.00	0		0.00	0.00
24	2.00	1.58	1.45	5.20	617.82	0		3.35	9.71
25	2.00	3.37	3.05	0.00	596.62	0		7.29	10.72
26	2.00	0.07	0.00	0.00	637.66	0		0.14	8.82
27	2.00	0.00	0.00	0.00	597.91	0		0.00	0.00
28	2.00	2.08	1.77	0.70	582.96	0		4.56	10.26
29	2.00	1.08	0.95	0.00	613.91	0		2.30	9.51
30	2.00	0.00	0.00	0.00	629.18	0		0.00	0.00
31	2.00	5.68	5.80	0.70	477.79	0		13.86	13.21
32	2.00	2.58	2.20	0.00	550.21	0		5.83	10.82
33	2.00	1.08	1.25	0.00	582.97	0		2.37	9.78
34	2.00	9.55	8.88	1.20	636.48	0		19.91	12.75
35	2.00	0.00	0.00	0.00	546.48	0		0.00	0.00

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM FLAG	DPM1	2SIGMA
36	2.00	0.00	0.00	0.00	444.15	0	0.00	0.00
37	2.00	0.00	0.00	0.92	608.34	0	0.00	0.00
38	2.00	0.00	0.00	0.00	571.12	0	0.00	0.00
39	2.00	3.58	3.42	0.00	630.27	0	7.51	10.49
40	2.00	0.00	0.00	0.00	639.42	0	0.00	0.00
41	2.00	0.08	0.25	0.00	477.17	0	0.20	10.35
42	2.00	0.08	0.25	3.35	610.12	0	0.18	9.05
43	2.00	1.53	1.01	0.00	575.92	0	3.36	10.06
44	2.00	0.93	1.10	1.20	540.42	0	2.13	10.11
45	2.00	0.19	0.36	0.00	495.96	0	0.45	10.15
46	2.00	0.00	0.00	0.00	532.32	0	0.00	0.00
47	2.00	1.08	0.87	0.00	553.21	0	2.44	10.06
48	2.00	0.00	0.00	0.19	531.42	0	0.00	0.00
49	2.00	0.00	0.00	0.00	478.16	0	0.00	0.00
50	2.00	0.00	0.00	0.00	551.66	0	0.00	0.00
51	2.00	0.00	0.00	0.00	547.67	0	0.00	0.00
52	2.00	1.58	1.75	0.70	594.03	0	3.43	9.92
53	2.00	0.00	0.00	0.00	439.90	0	0.00	0.00
54	2.00	0.00	0.00	0.00	453.49	0	0.00	0.00
55	2.00	0.00	0.00	6.20	474.18	0	0.00	0.00
56	2.00	0.00	0.00	0.00	591.09	0	0.00	0.00
57	2.00	0.00	0.00	0.00	409.58	0	0.00	0.00
58	2.00	0.00	0.00	0.00	541.36	0	0.00	0.00
59	2.00	0.00	0.00	0.00	262.33	0	0.00	0.00
60	2.00	2.49	2.33	0.00	540.55	0	5.68	10.88

30-16 P1

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg 3	SURVEY NO. 99-TF-1153
PURPOSE: SPOTCHECK OF PARTS, MATERIALS + EQUIPMENT.	RWP NO. N/A
	DATE: 10-1-99
	TIME: 1430

MAP/DRAWING

ITEMS NOT EXPOSED TO βγ-α CONTAMINATION. ITEMS NOT LOCATED WITHIN ANY RADIOLOGICAL AREAS, CONTROLLED AREAS NOR RADIOLOGICALLY RELATED AREAS. ITEMS GOING OFF-SITE FOR DISPOSAL.

DIRECT FRISK OF MATERIALS SHOWS:

< 5000 dpm/100cm² β

< 100 dpm/100cm² α

LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

[redacted]

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5402/5420	3-15-00
	N/A	

HP#	Date:
7752	10-1-99
5681	10/4/99
6057	10-11-99

[redacted]

ML-9620 (2-98)

Survey No. 99-TE-1153

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				CWATER TBL
2				↓
3				SINK
4				↓
5				OVEN - O/S
6				↓ - I/S
7				VAC. PUMP CASE O/S
8				↓ I/S
9				BRANSON
10				SCRAN C007327
11				OVEN O/S 7858
12				V/S ↓
13				O/S C007858
14				PUMP 904796
15				↓
16				BURN FURNACE #4
17				↓
18				↓
19				PLOTTER C005435
20				↓
21				OVEN V/S C007963
22				O/S ↓
23				OVEN C007929 V/S
24				↓ O/S
25				PUNCHES C007926
26				↓
27				↓
28				SAFE
29				↓
30				METAL FILTER 3515
31				VOLUMETRIC 4943
32				COUNTER 3324
33				COMBASE 3328
34				↓ 3329
35				COMPUTER 2573

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				PLOTTER 2922
37				↓ 2667
38				DISC MEM 8017
39				3532
40				8027
41				8016
42				8024
43				↓ 8018
44				COMBASE 4984
45				2576
46				2575
47				3589
48				↓ 2989
49				PHASER 7834
50				MTL CASE O/S
51				↓ I/S
52				PWR SPLY 9392
53				↓ 7852
54				CNTX UNIT 7991
55				MICROSCOPE

COMMENTS: ALL SWIPES FIELD COUNTED <1000dpm β/γ.

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Alpha/Beta Analysis

Batch ID: 99-TF-1153 RENNIE B63 (55) CYR

Batch File: Smear Unit 3 - 199910040727
Group: A
Device: Unit 3
Geometry: Swipe/Smear
Serial Number: 59123

Acquisition Date: 10/4/1999
Count Time (min): 1.5
Recalibration Date: 5/17/2000

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	4	0.00	1.06	2.43	5.31
2	35	0.00	1.06	0.00	3.89
3	125	0.00	1.06	0.00	3.89
4	15	3.78	6.58	2.41	5.31
5	12	1.47	4.72	4.97	6.42
6	1	1.48	4.72	3.70	5.89
7	56	3.78	6.58	2.41	5.31
8	150	0.00	1.06	1.15	4.65
9	99	6.06	8.03	7.51	7.37
10	8	3.78	6.58	1.13	4.65
11	119	3.78	6.58	1.13	4.65
12	7	0.00	1.06	1.15	4.65
13	30	1.48	4.72	1.14	4.65
14	112	1.48	4.72	0.00	3.89
15	10	6.07	8.03	3.68	5.89
16	38	0.00	1.06	4.98	6.42
17	85	1.48	4.72	2.42	5.31
18	102	3.78	6.58	0.00	3.89
19	23	0.00	1.06	3.71	5.89
20	16	0.00	1.06	1.15	4.65
21	53	0.00	1.06	4.98	6.42
22	113	0.00	1.06	0.00	3.89
23	7	0.00	1.06	0.00	3.89

99-TF-1153
Page 2006

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
24	46	3.78	6.58	1.13	4.65
25	24	1.48	4.72	2.42	5.31
26	33	3.78	6.58	2.41	5.31
27	139	3.78	6.58	0.00	3.89
28	7	3.77	6.59	3.69	5.89
29	39	0.00	1.06	3.71	5.89
30	148	1.48	4.72	3.70	5.89
31	7	1.48	4.72	2.42	5.31
32	70	1.48	4.72	2.42	5.31
33	88	1.47	4.72	6.25	6.91
34	25	1.47	4.72	4.97	6.42
35	84	1.48	4.72	1.14	4.65
36	98	0.00	1.06	1.15	4.65
37	101	1.46	4.72	8.81	7.80
38	33	1.48	4.72	3.70	5.89
39	70	0.00	1.06	2.43	5.31
40	40	1.48	4.72	2.42	5.31
41	2	0.00	1.06	3.71	5.89
42	65	0.00	1.06	2.43	5.31
43	6	0.00	1.06	4.98	6.42
44	140	1.48	4.72	2.42	5.31
45	136	3.78	6.58	1.13	4.65
46	13	3.76	6.59	7.52	7.37
47	88	3.76	6.59	7.52	7.37
48	47	1.48	4.72	0.00	3.89
49	105	6.06	8.03	7.51	7.37
50	12	1.47	4.72	4.97	6.42
51	30	3.77	6.59	3.69	5.89
52	39	1.49	4.72	0.00	2.93
53	18	3.77	6.59	3.69	5.89
54	34	0.00	1.06	4.98	6.42
55	93	3.78	6.58	2.41	5.31

04 Oct 1999 09:27 ALPHA/BETA - 1.09 Page #1
Protocol #: 1 PW 5CC H3 #403727 User : 56

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2SI	BKG
Region A:	0.5	18.6	0	0.0	7.09
Region B:	2.0	18.6	0	0.0	6.82
Region C:	40.0	2000	0	0.0	13.10

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
99-TF-1153 RENNIE BLDG.63 (30-16 V1-V35) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT1.DAT
Count Data Filename: C:\DATA\SDATA1.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	7.09	6.82	13.10	545.19	4	B		0.00
0	2.00	1148.48	1106.74	0.00	582.04	0		2515.49	212.15
1	2.00	4.91	5.18	10.89	573.21	0		10.85	11.48
2	2.00	0.00	0.00	0.00	501.23	0		0.00	0.00
3	2.00	2.91	2.99	0.90	554.02	0		6.55	10.78
4	2.00	2.35	2.50	12.90	515.64	0		5.49	10.90
5	2.00	18.91	18.07	45.40	513.79	0		44.23	17.63
6	2.00	7.65	7.92	5.90	474.33	0		18.76	14.02
7	2.00	2.13	2.32	0.00	496.23	0		5.08	11.00
8	2.00	2.56	2.62	6.24	287.27	13		9.10	18.21
9	2.00	4.91	5.12	0.00	482.40	0		11.91	12.61
10	2.00	0.00	0.00	0.00	607.37	0		0.00	0.00
11	2.00	31.40	30.84	110.47	509.30	0		73.77	21.68
12	2.00	70.05	66.16	93.30	581.20	0		153.54	29.69
13	2.00	3.91	3.68	2.90	475.20	0		9.58	12.24
14	2.00	2.96	3.23	10.40	315.10	0		9.79	15.88
15	2.00	15.35	15.33	36.19	252.07	0		61.34	27.99
16	2.00	5.15	5.42	12.56	334.15	0		16.26	16.57
17	2.00	0.00	0.00	10.90	97.124	0	E	0.00	0.00
18	2.00	2.69	2.58	3.90	379.67	0		7.66	13.52
19	2.00	29.61	29.69	107.97	473.83	0		72.63	22.08
20	2.00	6.80	6.87	14.40	486.46	0		16.41	13.41
21	2.00	3.91	3.40	8.09	525.90	0		9.04	11.55
22	2.00	2.96	3.15	0.00	490.97	0		7.09	11.51
23	2.00	0.46	0.60	0.00	520.92	0		1.07	9.86
24	2.00	1.41	1.18	9.33	450.18	0		3.58	11.32
25	2.00	2.99	3.26	14.31	464.69	0		7.43	11.94
26	2.00	14.91	15.08	6.90	460.06	0		37.29	17.34
27	2.00	2.41	1.91	0.00	523.03	0		5.59	10.86
28	2.00	1.62	1.34	0.00	472.22	0		3.98	11.09
29	2.00	2.41	2.68	0.40	568.38	0		5.35	10.39
30	2.00	0.00	0.00	0.00	612.15	0		0.00	0.00
31	2.00	4.69	4.46	0.40	625.31	0		9.88	10.86
32	2.00	3.41	3.68	10.90	464.39	0		8.48	12.17
33	2.00	10.41	9.98	0.90	578.60	0		22.88	13.63
34	2.00	2.91	2.84	0.00	635.82	0		6.08	10.00
35	2.00	7.07	7.07	0.96	598.82	0		15.25	12.10

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM FLAG	DPM1	2SIGMA
36	2.00	0.00	0.00	0.40	566.07	0	0.00	0.00
37	2.00	0.41	0.68	0.00	598.81	0	0.89	9.13
38	2.00	2.91	2.91	2.90	597.58	0	6.29	10.35
39	2.00	0.61	0.67	0.00	560.86	0	1.36	9.56
40	2.00	11.41	10.74	0.00	570.70	0	25.27	14.11
41	2.00	0.91	1.18	0.00	579.03	0	2.00	9.55
42	2.00	1.41	1.32	0.00	651.46	0	2.91	9.18
43	2.00	0.00	0.00	0.00	643.66	0	0.00	0.00
44	2.00	1.41	1.68	0.40	644.75	0	2.93	9.24
45	2.00	4.25	4.19	0.90	628.64	0	8.92	10.64
46	2.00	0.91	0.87	0.00	621.24	0	1.93	9.19
47	2.00	0.00	0.00	0.92	488.95	44	0.00	0.00
48	2.00	1.36	1.63	0.00	605.71	0	2.91	9.54
49	2.00	0.00	0.00	0.00	616.52	0	0.00	0.00
50	2.00	0.00	0.00	0.00	557.61	0	0.00	0.00
51	2.00	6.87	6.89	0.87	518.10	0	15.99	12.98
52	2.00	0.00	0.00	0.00	585.59	0	0.00	0.00
53	2.00	4.66	4.78	0.00	534.33	0	10.69	11.80
54	2.00	1.91	2.18	0.00	613.74	0	4.07	9.73
55	2.00	1.41	1.43	4.40	589.22	0	3.08	9.71

30-16 P6

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) B63	SURVEY NO. 99-TF-1158
PURPOSE: SPOTCHECK OF MMCIC EQUIPMENT.	RWP NO. N/A
	DATE: 10-4-99
	TIME: 1400

MAP/DRAWING

EQUIPMENT NOT EXPOSED TO β or α CONTAMINATION, NOT CONTAINED W/IN ANY RADIOLOGICAL AREAS, CONTROLLED AREAS OR RADIOLOGICALLY RELATED AREAS.

DIRECT FRISK OF EQUIPMENT:

< 5000 dpm/100cm² β

< 100 dpm/100cm² α

MATERIALS TO BE TRANSFERRED OFF-SITE.

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5420/5402	3-15-00
	N/A	

[redacted]

HP#	Date:
752	10-4-99
[redacted]	
HP# 5681	Date: 10/5/99
HP# 6057	Date: 10-11-99
[redacted]	

ML-9620 (2-98)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				9182 MONITOR
2				9183 MONITOR
3				PIECES-MONITOR
4				9169 I/S BOX
5				9169 O/S BOX
6				3308 CAL LOOP
7				3285
8				3309
9				3286
10				3310
11				3307
12				4983 TRUGGER
13				4145
14				DISC BOX O/S
15				I/S
16				O/S
17				I/S
18				9184 CABINET
19				I/S
20				9185 CABLES
21				20A SUMP SET
22				NOT USED
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: ALL SWIPES FIELD COUNTED <1000dpm/100cm² α+β

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR057
Batch Ended: 10/5/99 10:04
Cal. Due Date: 8/24/00
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-TF-1158 RENNIE BLDG.63 (21) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.06	<MDA	0.00	1.93	<MDA
A2	2	0.00	2.22	<MDA	0.51	2.08	<MDA
A3	3	1.59	1.94	<AL	1.52	2.09	<MDA
B1	4	0.00	2.06	<MDA	3.38	2.88	<AL
B2	5	1.27	1.90	<MDA	1.63	2.30	<MDA
B3	6	0.00	2.01	<MDA	0.54	2.09	<MDA
B4	7	0.00	1.93	<MDA	0.65	1.96	<MDA
C1	8	1.70	2.01	<AL	0.00	1.48	<MDA
C2	9	1.69	2.06	<AL	1.55	2.31	<MDA
C3	10	5.45	3.31	<AL	0.00	1.35	<MDA
C4	11	0.00	1.92	<MDA	0.58	2.76	<MDA
D1	12	0.00	2.01	<MDA	0.00	1.50	<MDA
D2	13	0.00	2.04	<MDA	0.16	1.74	<MDA
D3	14	1.55	2.11	<MDA	0.00	1.57	<MDA
D4	15	1.65	2.00	<AL	0.15	1.77	<MDA
A1	16	0.82	2.06	<MDA	0.00	1.93	<MDA
A2	17	0.00	2.22	<MDA	0.51	2.08	<MDA
A3	18	1.59	1.94	<AL	1.52	2.09	<MDA
B1	19	1.28	2.05	<MDA	0.48	2.10	<MDA
B2	20	0.00	1.89	<MDA	0.45	1.91	<MDA
B3	21	3.44	2.80	<AL	0.00	1.54	<MDA

99-TF-1158
Page 3 of 4

05 Oct 1999 19:55 ALPHA/BETA - 1.09
Protocol #: 6 PW SCC H3 #403727 User : 56

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL2 Quench Set: SMVIAL2
Background Subtract: 1st Vial

	LL	UL	LCR	2SI	BKG
Region A:	0.5 -	18.6	0	0.0	5.75
Region B:	2.0 -	18.6	0	0.0	5.58
Region C:	40.0 -	2000	0	0.0	15.76

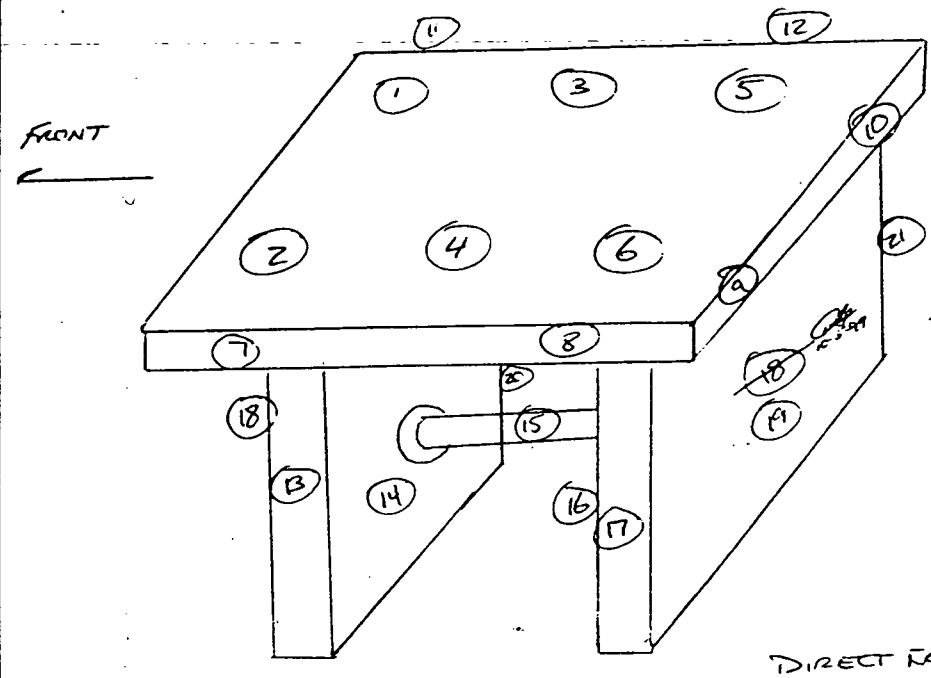
Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
99-TF-1158 RENNIE BLDG.63 (30-16 F1-F21) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT6.DAT
Count Data Filename: C:\DATA\SDATA6.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	5.75	5.58	15.76	537.96	2	B		0.00
0	2.00	1186.49	1142.95	0.00	573.04	0		2620.61	220.10
1	2.00	4.22	4.26	0.00	517.51	0		9.83	11.01
2	2.00	1.75	1.92	0.00	557.95	0		3.93	9.32
3	2.00	2.25	1.92	0.00	579.06	0		4.95	9.40
4	2.00	4.25	4.42	0.00	618.14	0		9.01	10.03
5	2.00	4.23	4.11	0.00	607.61	0		9.05	10.11
6	2.00	2.25	2.42	0.00	654.81	0		4.62	8.78
7	2.00	0.75	0.17	0.00	653.40	0		1.55	8.04
8	2.00	5.25	4.55	0.00	650.59	0		10.82	10.18
9	2.00	0.00	0.00	0.00	603.73	0		0.00	0.00
10	2.00	2.14	1.97	0.00	631.98	0		4.48	8.91
11	2.00	1.25	1.42	0.00	623.83	0		2.64	8.51
12	2.00	5.72	5.60	0.00	607.34	0		12.25	10.79
13	2.00	2.25	1.68	0.00	578.06	0		4.95	9.41
14	2.00	1.68	1.84	0.00	634.03	0		3.50	8.66
15	2.00	3.25	3.42	0.00	644.58	0		6.73	9.34
16	2.00	0.00	0.00	0.00	621.30	0		0.00	0.00
17	2.00	3.75	3.92	0.00	649.09	0		7.74	9.53
18	2.00	1.75	1.80	0.00	513.03	0		4.10	9.74
19	2.00	1.25	1.42	0.00	606.99	0		2.68	8.64
20	2.00	0.00	0.00	0.00	659.48	0		0.00	0.00
21	2.00	2.75	2.92	0.00	588.19	0		5.99	9.58

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 1363	SURVEY NO. 99-TF-1161
PURPOSE: SPOTCHECK OF MARBLE TABLE #1, MMCIC EQUIPMENT.	RWP NO. N/A
	DATE: 10-5-99
	TIME: 0900

MAP/DRAWING



HISTORY OF TABLE TO BEST OF KNOWLEDGE IS THAT TABLE WAS NOT EXPOSED TO β CONTAMINATION. TABLE IS EXCESS MATERIAL GOING OFF-SITE VIA MMCIC. TABLE IS NOT MARKED RAM NOR CONTAINED W/IN ANY RADIOLOGICAL AREAS, CONTROLLED AREAS, OR RADIOLOGICALLY RELATED AREAS. ON 10-1-99 TABLE WAS SURVEYED ON RSDS # 99-TF-1154. SWIPE #42 ON THE TABLE INDICATED 15 dpm/100cm² α W/A CORRECTION FACTOR OF 12 dpm (2σ). THIS SURVEY DOCUMENTS FOLLOW UP ACTIONS.

DIRECT FLUSK OF TABLE SURFACES SHOWS < 5000 dpm/100cm² β
< 100 dpm/100cm² α.

NO TRITIUM FOUND ON TABLE PER RSDS 99-TF-1154,
∴ NO TRITIUM MONITORING PERFORMED FOR THIS SURVEY.

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5420/5402	3-15-00
	N/A	

[redacted]

HP#	Date:
7752	10-5-99
[redacted]	
5681	10/5/99
6057	10-11-94
[redacted]	

ML-9620 (2-98)

Survey No. 99-TF-1161

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1			N/A	TOP, FRONT, RIGHT
2				TOP FRONT LEFT
3				TOP MID RIGHT
4				TOP MID LEFT
5				TOP BACK RIGHT
6				TOP BACK LEFT
7				LEFT SIDE FRONT
8				LEFT SIDE BACK
9				BACKSIDE LEFT
10				BACKSIDE RIGHT
11				RIGHT SIDE FRONT
12				RIGHT SIDE BACK
13				FRONT LEG LEFT
14				FRONT LEG MID
15				SUPPORT BAC
16				BACK LEG MID.
17				BACK LEG LEFT
18				FRONT LEG FRONT
19				BACK LEG BACK
20				RIGHT SIDE FRONT LEG
21				RIGHT REAR LEG.

ATTACHED SEE SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: ALL SMEARS FIELD COUNTED <1000 dpm/100cm² β-α

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (4-98)

Alpha/Beta Analysis

Batch ID: 99-TF-1161 RENNIE BLDG.63 (21) CYR

Batch File: Smear Unit 1 - 199910051538
Group: E
Device: Unit 1
Geometry: Swipe/Smear
Serial Number: 64937

Acquisition Date: 10/5/1999
Count Time (min): 1.5
Recalibration Date: 5/17/2000

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	43	0.00	0.71	0.00	3.41
2	139	1.31	3.64	4.06	5.92
3	131	1.31	3.64	0.00	4.04
4	73	10.24	8.78	6.18	6.68
5	112	1.31	3.64	0.81	4.58
6	6	1.31	3.64	0.00	4.04
7	19	10.24	8.78	5.10	6.32
8	13	1.31	3.64	1.90	5.07
9	5	0.00	0.71	1.91	5.07
10	71	4.89	6.23	0.00	4.05
11	69	1.31	3.64	0.81	4.58
12	100	1.31	3.64	2.98	5.51
13	54	3.10	5.10	6.22	6.67
14	106	1.31	3.64	2.98	5.51
15	66	0.00	0.71	0.82	4.58
16	8	3.10	5.10	0.80	4.59
17	19	1.31	3.64	0.81	4.58
18	128	1.31	3.64	0.81	4.58
19	32	3.10	5.10	0.80	4.59
20	69	0.00	0.71	2.99	5.51
21	31	1.31	3.64	0.00	3.41

TT-TF-1161
Page 3 of 3

Appendix H

Radon Summary/Information

October 18, 2001

BUILDING 63

Asbestos

Previous surveys did not positively identify any asbestos-containing materials. A walk-through assessment of readily accessible areas of Building 63 indicated the presence of materials suspect for containing asbestos.

Previous surveys found no asbestos upon sampling and analysis of materials. Pipe insulation, ceiling tiles, and drywall were all sampled.

The walk-through assessment identified floor tiles, fire safes, and furnace tar insulation located throughout the facility which were assumed to contain asbestos. All observed suspect materials were seen to be intact.

Lead Paint

No objective data could be found or was generated during the walk-through assessment of Building 63 to indicate the presence of lead in paint coatings which were present. Therefore, all such coatings were assumed to be potentially lead-containing, although the date of construction makes it unlikely that high concentrations of lead would exist. The observed paint coatings were found to be intact.

Other

Several chemicals were noted in areas having active processes. These included isopropanol, "Circalok Encapsulant B", "3M Fluorinet"and "EC-7" defluxer cleaner. These chemicals were properly labeled and stored. Room 129 had several presses and lathes which contained associated cutting oils. These oils were well contained and the machines appeared to be in good repair. A helium/argon gas cylinder was stored within the area. Labeling and storage of the cylinder was appropriate. Various containers of household-type paints and cleaners were observed; these were in their original, labeled containers and properly stored.

Chris Ahlquist
Industrial Hygiene

UNC Geotech

UNC Geotech
2597 B 3/4 Road
P.O. Box 14000
Grand Junction, Colorado 81502-5504
303/242-8621

April 12, 1990

Dennis Murphy
EG&G Mound Applied Technonogies
P.O. Box 3000
Mound Road
Miamisburg, OH 45343-3000

File

Dear Mr. Murphy:

I have enclosed the results of the radon measurements made at your site as part of the DOE Indoor Radon Study. A copy of these results can be provided in electronic format if desired. The results will be forwarded to the study sponsor, the DOE Office of Projects and Facilities Management, by the end of April.

Please contact me at FTS 326-6293 or commercial (303) 248-6293 if you have any questions.

Sincerely yours,

Mark D. Pearson

Mark D. Pearson
Project Manager
UNC Geotech

cc: DOE Points of Contact

			pCi/l	pCi/l	Manid	Dupid	Date	Date	Comments
21		ABOVE AIR SAMPLER	161.1	125.8	1670055	1666782	12/14/89	2/16/90	WET - OLD THORIUM STORAGE
21		ABOVE AIR SAMPLERS	116.7		1660508		12/14/89	2/16/90	WET - OLD THORIUM STORAGE
	SW	19 NEO EAST WALL	6.8		1661547		12/12/89	2/19/90	HISTORY OF ELEVATED READINGS
46		114 B CLOSET ON SPRINKLER PIPE	3.2		1671292		12/12/89	2/19/90	
19		ROOM 1	2.8		1670051		12/13/89	2/19/90	
	OLD SO BLDG	BASEMENT RIGHT CABINET	2.4		1661585		12/14/89	2/19/90	
55		1 BELOW THERMOSTAT ON E WALL	2.1		1661515		12/10/89	2/19/90	
57		ROOM 1	1.9		1661565		12/12/89	2/19/90	
87		143	1.5		1661563		12/13/89	2/19/90	
818	FIRE STATION	ROOM 002 EQUIPMENT ROOM WITH SUMP	1.4		1654460		12/12/89	2/19/90	
24		ROOM 1 PLANT NORTH WALL	1.3		1672087		12/12/89	2/19/90	
	PAINT SHOP	PS 4	1.2		1661516		12/12/89	2/16/90	
30		ROOM 3 EAST	1.1		1671262		12/12/89	2/16/90	
100		103 MIDDLE OF NORTH WALL	1.0		1670060		12/12/89	2/19/90	
37		6 NORTH WALL	1.0		1670046		12/12/89	2/19/90	
34		34 A WEST WALL	.9	.6	1672062	1672043	12/12/89	2/19/90	WET
102		123	.9		1661577		12/14/89	2/19/90	
61		RM 221 MIDDLE OF NORTH WALL	.9		1661585		12/13/89	2/19/90	
67		101 N	.9		1670028		12/12/89	2/19/90	
G-13	LOG	G-514 WEST WALL	.9		1661544		12/12/89	2/16/90	
	T	CORRIDOR 28	.9		1670039		1/15/90	2/19/90	
	T	153	.9		1670067		1/15/90	2/19/90	
	T	78	.9		1670077		1/15/90	2/19/90	
	T	38	.9		1661586		1/15/90	2/19/90	
105	PARTS MACHINING BUILDING	STAIRWELL NEXT TO ROOM 127	.8		1661564		12/12/89	2/19/90	
25	ARAC	3 ON BOOK CASE MIDDLE	.8		1671316		12/15/89	2/19/90	
60		1 ON DOOR TO ROOM 3	.8		1670049		12/12/89	2/19/90	
	A	153C CENTER CUBICLE WEST WALL	.8		1672056		12/14/89	2/16/90	
	C BUILDING OLD CAFETERIA	NORTHEAST SECTION INTERNAL WALL RM2	.8		1672052		12/12/89	2/16/90	
	R BUILDING	68 NORTH WALL	.8		1670068		12/13/89	2/16/90	
	SW	8 WEST WALL AT OLD RECOVERY	.8		1672057		12/11/89	2/16/90	
	WO BLDG	WO 8	.8		1670045		12/10/89	2/16/90	
87		124	.8		1670032		12/12/89	2/19/90	
88		ROOM 116 ON NORHT WALL RIGHT OF CEN	.7	.6	1661524	1661535	12/12/89	2/19/90	
65		101 NEAR BACK CORNER BY ROOF DRAIN	.7	.5	1666783	1666532	12/15/89	2/19/90	
22		RM 1 EAST CORRIDOR ON STORAGE RACK	.7		1670070		12/12/89	2/19/90	
56	FIRE PUMP HOUSE	ROOM 1 THERE IS ONLY 1 ROOM	.7		1670066		12/12/89	2/19/90	
	E ANNEX	E 225 EAST WALL	.7		1661552		12/10/89	2/16/90	
	POWER HOUSE PH-1	REPAIR SHOP NORTH EAST CORNER	.7		1670040		12/12/89	2/19/90	
	W BLDG	W-135	.7		1661553		12/12/89	2/16/90	
26		ROOM 84 SOUTH WEST WALL	.6	.9	1672040	1667159	12/13/89	2/16/90	
69		RM 7 ON NORTH WALL	.6	.4	1672044	1672077	12/12/89	2/19/90	
26		ROOM 84 SOUTH WEST WALL	.6		1671278		12/12/89	2/16/90	
35		RM 7	.6		1654458		12/14/89	2/19/90	
38	PP BLDG	PP CORR 136	.6		1670016		12/14/89	2/19/90	
72		ON OVERHEAD DOOR BEAM	.6		1672069		1/03/90	2/19/90	
93		HALLWAY 107 (MIDWAY)	.6		1661628		12/13/89	2/20/90	
96	FIRE STATION	ROOM 114 DORM	.6		1661507		12/12/89	2/19/90	
	COS	NW STAIRWELL AT BASEMENT LEVEL	.6		1672086		12/14/89	2/19/90	
	OSW	120 C	.6		1661573		12/12/89	2/16/90	
	SW	150 WEST END GAS BOX	.6		1670043		12/11/89	2/16/90	
	A	34 EAST WALL	.5	.7	1672075	1672051	12/14/89	2/16/90	
47		102 MIDDLE OF EAST WALL	.5	.5	1650110	1666819	12/12/89	2/16/90	

Area	Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
	45		WORK STATION AREA	.4		1681568		12/14/89	2/19/90	
	46		81 EAST WALL	.4		1672070		12/12/89	2/19/90	
	49		HALL OUTSIDE RM 125	.4		1678020		12/14/89	2/19/90	
	51		107 TOP OF FUME HOOD	.4		1681575		12/12/89	2/19/90	
	63		ROOM 134	.4		1672059		12/13/89	2/20/90	
	63M		RM 4	.4		1676078		12/14/89	2/19/90	
	65		ROOM 10 CONFERANCE ROOM	.4		1671204		12/14/89	2/19/90	
	66		OFFICE AREA	.4		1681554		12/12/89	2/19/90	
	68		EAST WALL CENTER BEAM	.4		1681555		12/14/89	2/19/90	
	69		RM 16A	.4		1681576		12/12/89	2/19/90	
	70		170 MEETING ROOM CENTER WALL	.4		1678041		12/12/89	2/19/90	
	80		ROOM 116	.4		1671205		12/12/89	2/19/90	
	95	SM/PP	95- BLD-ROOM41	.4		1661531		12/12/89	2/20/90	
		OS BUILDING	CORRIDOR 2 - 6 FT. ABOVE FLOOR	.4		1678071		12/13/89	2/19/90	
		I	I HALLWAY	.4		1667194		12/12/89	2/19/90	
		N BUILDING	N 21 WEST WALL	.4		1678057		12/16/89	2/20/90	
		POWER HOUSE PH-1	OFFICE SUPERVISOR	.4		1678036		12/12/89	2/19/90	
		R BUILDING	12 SOUTH WALL	.4		1681566		12/12/89	2/19/90	
	34		BURN ROOM			1654481		12/12/89		BURNT (NOT AVAILABLE)
	61		RM 151			1681567		12/13/89		MISSING

Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
	R BUILDING	163 NEXT TO NORTH WALL	.5	.5	1660533	1666816	12/12/89	2/16/90	
101		ROOM 5 ON SOUTH WEST WALL IN OFFSET	.5		1671280		12/12/89	2/19/90	
	"B" 175	175 WEST WALL	.5		1678040		12/12/89	2/16/90	
.6		ELECTRICAL PANEL RM IN ELEC/RONICS	.5		1678062		12/12/89	2/19/90	
40		100	.5		1654480		12/12/89	2/16/90	
43		1 EAST WALL OVER WATER DISPENSER	.5		1678076		12/12/89	2/20/90	
44		ON BULLETIN BOARD	.5		1678047		12/12/89	2/16/90	
47		102 MIDDLE OF EAST WALL	.5		1678050		12/12/89	2/16/90	
50		CELL 113	.5		1681582		12/12/89	2/19/90	
79		CENTRAL HALLWAY WEST OF DOOR TO RM7	.5		1681605		12/18/89	2/16/90	
89		101 NEAR BACK CORNER BY ROOF DRAIN	.5		1678079		12/15/89	2/19/90	
91		1ST FLOOR	.5		1661525		12/15/89	2/16/90	
91		2ND FLOOR OUTSIDE RM215	.5		1681593		12/15/89	2/16/90	
92		HALLWAY RIGHT OFF ROOM 8	.5		1661509		12/12/89	2/19/90	
94		BAY 2 NORTH WALL	.5		1654477		12/12/89	2/19/90	
	A	215 WEST WALL	.5		1681572		12/14/89	2/16/90	
	A	1040 WEST WALL	.5		1681580		12/14/89	2/16/90	
	COS	110 N WALL NEAR PUNCH PRESS	.5		1654456		12/12/89	2/19/90	
	COS	319 WALL CABINET TO RIGHT OF SINK	.5		1681590		12/12/89	2/19/90	
	E BUILDING	150 WEST WALL	.5		1678033		12/14/89	2/16/90	
	E BUILDING	103 WEST WALL	.5		1678072		12/14/89	2/16/90	
	E ANNEX	E 212 NORTH WALL	.5		1681587		12/18/89	2/16/90	
	GH BUILDING	ROOM 2	.5		1678065		12/12/89	2/16/90	
	GP 81	1A MIDDLE OF WEST WALL	.5		1678054		12/12/89	2/19/90	
	H BLDG	ROOM 127	.5		1681571		12/12/89	2/16/90	
	MH	MH-6	.5		1671269		12/18/89	2/19/90	
	I BUILDING	BASEMENT LEFT CRAWL SPACE DOOR	.5		1671260		12/12/89	2/19/90	
	N BUILDING	N 100	.5		1678056		12/15/89	2/19/90	
	OSE	CORRIDOR 437	.5		1661536		12/15/89	2/16/90	
	OSE	CORRIDOR 301 ACROSS FROM WATER FOUN	.5		1672084		12/15/89	2/16/90	
	OSM	4HT FLOOR	.5		1678028		12/12/89	2/16/90	
	OSE	CORR 212 SOUTH WALL NEAR 210 DOOR	.5		1678036		12/15/89	2/16/90	
	OSM	319	.5		1678069		12/13/89	2/16/90	
	OSM	2ND FLOOR	.5		1681611		12/12/89	2/16/90	
	POWER HOUSE PH-1	STATIONARY BOARD CORNER	.5		1678073		12/12/89	2/19/90	
	R BUILDING	145 WEST WALL ABOVE BALANCE	.5		1654538		12/14/89	2/16/90	
	SW/R TRITIUM COMPLEX	128 OVER LARGE METAL FLOOR DISC	.5		1678019		12/12/89	2/16/90	
	W BLDG	W135 WEST CENTRAL WALL	.5		1671293		12/12/89	2/16/90	
	WO BLDG	WOA 110	.5		1671301		12/18/89	2/16/90	
	"B" 124	EAST WALL	.5		1667189		12/12/89	2/16/90	
	OSE	113 BULLETIN BOARD OPPOSITE ELEVATO	.5		1678027		12/15/89	2/16/90	
TF-2		114 EAST WALL CENTER OF ROOM	.4		1678064		12/12/89	2/19/90	
	MH	MH-24	.4		1667187		12/14/89	2/19/90	
	OS BUILDING	CORRIDOR 7 NEXT TO ROOM 216	.4		1661514		12/12/89	2/19/90	
	GP 81	1A MIDDLE OF WEST WALL	.4	.5	1672135	1661542	12/12/89	2/19/90	
105	PARTS MACHINING BUILDING	136 QC OFFICE	.4		1678017		12/12/89	2/19/90	
27		CELL 8 - WALL	.4		1681583		12/12/89	2/19/90	
28	CERAMIC PRODUCTION	101	.4		1672061		12/12/89	2/19/90	
29		HALLWAY	.4		1672105		12/14/89	2/19/90	
	TEST FIRE BUILDING 3	3-315	.4		1672036		12/12/89	2/19/90	
38	PP BLDG	PP CORR 16/BAY 2 WALL	.4		1681570		12/14/89	2/19/90	
39		BREAK RM	.4		1678050		12/14/89	2/19/90	
42		101 B EAST WALL	.4		1678031		12/13/89	2/19/90	

Appendix I

Asbestos Summary/Information

MOUND ASBESTOS SURVEY
BUILDING SUMMARY

BUILDING 63

FLOORS:	Two	PIPE CHASES:	Yes
DATE BUILT:	1981	PENTHOUSE:	None
CRAWLSPACE:	None	GROSS AREA, SQ. FT.:	16,461
SUSPENDED CEILING:	Yes	ADDITIONS:	1983

No Thermal System Insulation containing asbestos was found in Building 63. Materials suspected to contain, or assumed to contain, asbestos are present. The homogeneous areas for the sampled suspect Asbestos Containing Materials, as well as the materials assumed to be Asbestos containing, are shown below. Refer to the Mound Asbestos Survey Sample Data Report for specific information on sample constituents.

HOMOGENEOUS AREAS
Sample Numbers: 0.945-0.953

No.	Description	Result
1	Pipe Joint Insulation, Type I, Hard Joints w/Fiberglass Runs	Negative
2	Ceiling, Tile, CT3-F, (2'x4'), Pits w/Pinholes	Negative
3	Drywall	Negative
4	Drywall Joint Compound	Negative

Assumed ACM:	Amount	Location
* Floor Tile	N/A	N/A
** Carpet	N/A	N/A

Drawing Reference: P50, P51

* Floor tile quantities not included in scope.
** Carpet quantities not included in scope.

4.62 Building 63

The following asbestos-containing material was identified in Building 63:

- Floor tile

TABLE 1. HOMOGENEOUS AREAS OF SUSPECT ASBESTOS-CONTAINING MATERIALS IN BUILDING 63, EG&G MOUND APPLIED TECHNOLOGIES, INC.
(Inspected October 27, 1988)

Homogeneous area No.	Type of material	Description of homogeneous area	Does homogeneous material contain asbestos? (assumed/sampled)
1	Thermal system insulation	Cementitious fittings on fiberglass water and steam lines	No/sampled
2	Miscellaneous	2-ft by 4-ft (slash, dot) ceiling tile located throughout the building	No/sampled
3	Miscellaneous	1-ft by 1-ft vinyl floor tile located throughout the building	Yes/assumed

TABLE 2. DATA SUMMARY FOR BULK SAMPLES OF SUSPECT ASBESTOS-CONTAINING MATERIALS IN BUILDING 63, EG&G MOUND APPLIED TECHNOLOGIES, INC.

Homo-geneous area No.	Field sample No.	Sample date (1988)	PEI Laboratory requisition No.	Floor/room No.	Sample location	Asbestos fiber content
1	MRC-6621	10/27	T8-11-003-04A	1/Room 110	Center of north wall above ceiling on domestic hot-water line	None detected
1	MRC-6622	10/27	T8-11-003-05A	1/Room 110	Center of north wall above ceiling on steam line	None detected
1	MRC-6624	10/27	T8-11-003-07A	1/Room 110	On domestic hot-water tank to left of entrance	None detected
2	MRC-6623	10/27	T8-11-003-06A	1/Room 111	Center of north wall	None detected
2	MRC-6625	10/27	T8-11-003-08A	1/Room 102	To left of south entrance as you enter building from outside	None detected
2	MRC-6626	10/27	T8-11-003-09A	1/Room 120	4 inches directly in front of doorway	None detected
2	MRC-6627	10/27	T8-11-003-10A	1/Room 129	8 feet to left of doorway along north wall as you enter	None detected

Appendix J

Lead Summary/Information

October 18, 2001

BUILDING 63

Asbestos

Previous surveys did not positively identify any asbestos-containing materials. A walk-through assessment of readily accessible areas of Building 63 indicated the presence of materials suspect for containing asbestos.

Previous surveys found no asbestos upon sampling and analysis of materials. Pipe insulation, ceiling tiles, and drywall were all sampled.

The walk-through assessment identified floor tiles, fire safes, and furnace tar insulation located throughout the facility which were assumed to contain asbestos. All observed suspect materials were seen to be intact.

Lead Paint

No objective data could be found or was generated during the walk-through assessment of Building 63 to indicate the presence of lead in paint coatings which were present. Therefore, all such coatings were assumed to be potentially lead-containing, although the date of construction makes it unlikely that high concentrations of lead would exist. The observed paint coatings were found to be intact.

Other

Several chemicals were noted in areas having active processes. These included isopropanol, "Circalok Encapsulant B", "3M Fluorinet"and "EC-7" defluxer cleaner. These chemicals were properly labeled and stored. Room 129 had several presses and lathes which contained associated cutting oils. These oils were well contained and the machines appeared to be in good repair. A helium/argon gas cylinder was stored within the area. Labeling and storage of the cylinder was appropriate. Various containers of household-type paints and cleaners were observed; these were in their original, labeled containers and properly stored.

Chris Ahlquist
Industrial Hygiene

Appendix K

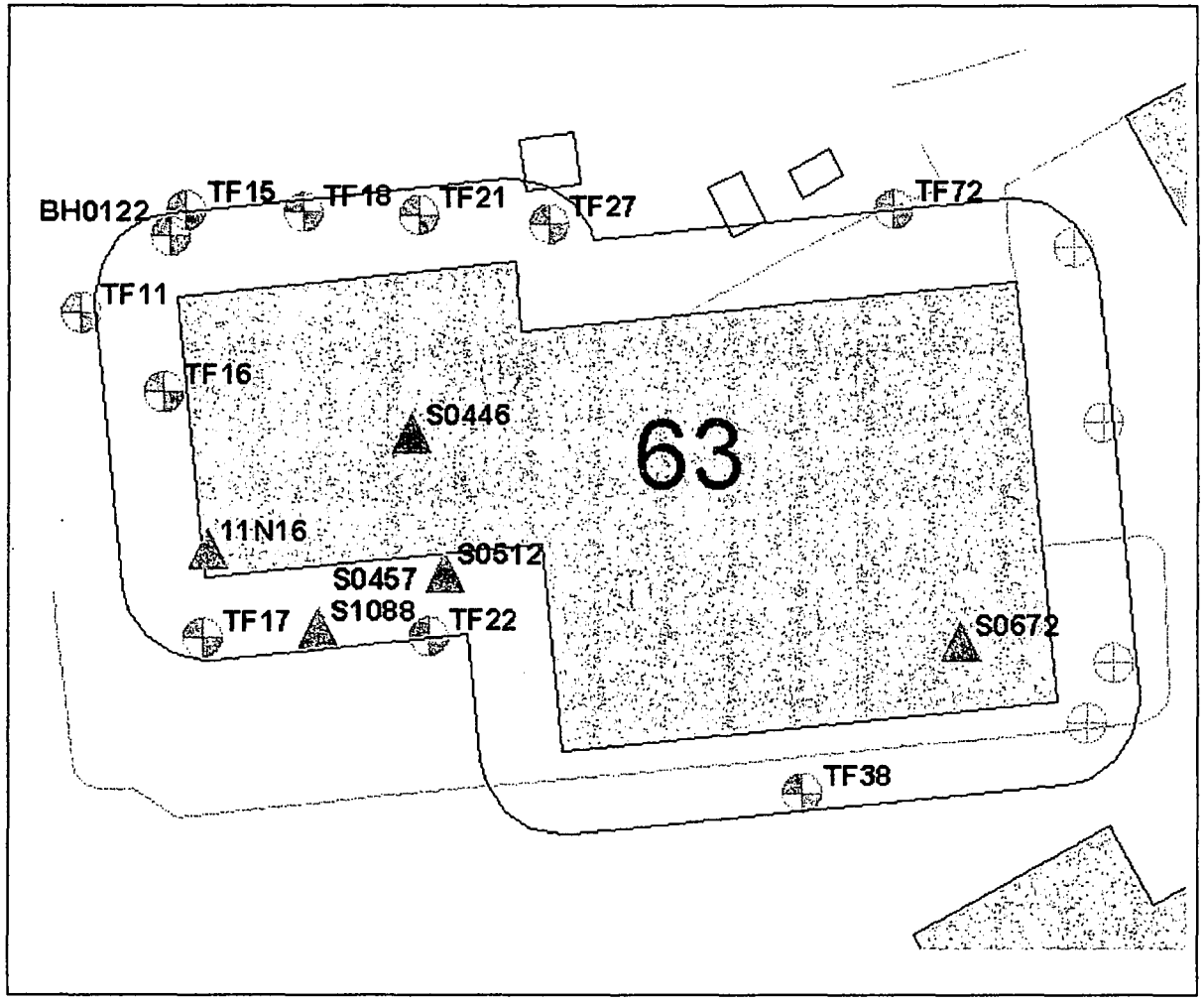
Chemical Summary/Information

There is no existing information for this section.

Appendix L

Soil Sampling, Vicinity

Bldg. 63 Sample Locations



25 0 25 50 75 100 Feet

Bldg 63 Sample Hits
Bldg 63 Samples Outline
Soil Boring Outline
Surface Sample Outline
Building Label
Text Bldg ID
Building Outline
Building Outline
Building
Color Fill
Roads
Paved Drives/Parking
Unpaved Drives/Parking

Location_na	Sample_id	Location_	Collection_da	Value_name	Measured_value	Value_un	Detection	Chem_cl	Start_d	End_de	CAS_numb	Lab_q	Data_	Project_d	Media	Collection_method	Comments
TF72	000096	Borehole	20010712	Acetone	15.0000	UG/KG		ORVOA	32.0	36.0	67-64-1			TF2001	Soil	Auger, hollow stem	
TF72	000094	Borehole	20010712	Acetone	18.0000	UG/KG		ORVOA	28.0	32.0	67-64-1			TF2001	Soil	Auger, hollow stem	
TF72	000092	Borehole	20010712	Americium-241	0.0716	PCI/G	0.0625	RAD	20.0	24.0	14596-10-2			TF2001	Soil	Auger, hollow stem	
TF21	000074	Borehole	20010711	Cesium-137	0.0424	PCI/G	0.0383	RAD	0.0	4.0	10045-97-3			TF2001	Soil	Auger, hollow stem	
TF18	000077	Borehole	20010710	Cesium-137	0.0481	PCI/G	0.0463	RAD	0.0	4.0	10045-97-3			TF2001	Soil	Auger, hollow stem	
TF11	000065	Borehole	20010710	Cesium-137	0.0884	PCI/G	0.0415	RAD	0.0	4.0	10045-97-3			TF2001	Soil	Auger, hollow stem	
TF72	000096	Borehole	20010712	Dichloromethane (Methylene Chl	7.0000	UG/KG		ORVOA	32.0	36.0	75-09-2	B		TF2001	Soil	Auger, hollow stem	
TF72	000092	Borehole	20010712	Dichloromethane (Methylene Chl	17.0000	UG/KG		ORVOA	20.0	24.0	75-09-2	B		TF2001	Soil	Auger, hollow stem	
TF72	000090	Borehole	20010712	Dichloromethane (Methylene Chl	18.0000	UG/KG		ORVOA	12.0	16.0	75-09-2	B		TF2001	Soil	Auger, hollow stem	
TF72	000089	Borehole	20010712	Dichloromethane (Methylene Chl	18.0000	UG/KG		ORVOA	8.0	12.0	75-09-2	B		TF2001	Soil	Auger, hollow stem	
TF72	000087	Borehole	20010712	Dichloromethane (Methylene Chl	20.0000	UG/KG		ORVOA	0.0	4.0	75-09-2	B		TF2001	Soil	Auger, hollow stem	
TF72	000097	Borehole	20010712	Dichloromethane (Methylene Chl	21.0000	UG/KG		ORVOA	32.0	36.0	75-09-2	B		TF2001	Soil	Auger, hollow stem	
TF72	000094	Borehole	20010712	Dichloromethane (Methylene Chl	26.0000	UG/KG		ORVOA	28.0	32.0	75-09-2	B		TF2001	Soil	Auger, hollow stem	
TF72	000093	Borehole	20010712	Dichloromethane (Methylene Chl	29.0000	UG/KG		ORVOA	24.0	28.0	75-09-2	B		TF2001	Soil	Auger, hollow stem	
TF11	000065	Borehole	20010710	Lead-210	0.4873	PCI/G	0.4643	RAD	0.0	4.0	14255-04-0			TF2001	Soil	Auger, hollow stem	
TF72	000090	Borehole	20010712	Lead-210	0.6220	PCI/G	0.4008	RAD	12.0	16.0	14255-04-0			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000093	Borehole	20010712	Lead-210	0.8100	PCI/G	0.7978	RAD	24.0	28.0	14255-04-0			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF18	000077	Borehole	20010710	Lead-210	1.8570	PCI/G	0.7045	RAD	0.0	4.0	14255-04-0			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds screening level.
S0512	2988	Surface lo	19831001	Plutonium-238	0.0300	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicable	
S0457	2989	Surface lo	19831001	Plutonium-238	0.2500	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicable	2-Exceeds background value.
S1088	2989	Surface lo	19831001	Plutonium-238	0.2500	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicable	2-Exceeds background value.
S0672	4027	Surface lo	19831001	Plutonium-238	0.4300	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicable	2-Exceeds background value.
S0446	2983	Surface lo	19831001	Plutonium-238	0.4700	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicable	2-Exceeds background value.
BH0122	17693	Borehole	19871113	Plutonium-238	27.0000	PCI/G		RAD	25.0	25.0	13981-16-3			SCRDAT	Soil	Unknown	1-Exceeds soil 10-6 GV. 2-Exceeds background value.
BH0122	17690	Borehole	19871113	Plutonium-238	29.0000	PCI/G		RAD	10.0	10.0	13981-16-3			SCRDAT	Soil	Unknown	1-Exceeds soil 10-6 GV. 2-Exceeds background value.
TF72	000090	Borehole	20010712	Radium-226	0.8299	PCI/G	0.6347	RAD	12.0	16.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000094	Borehole	20010712	Radium-226	0.8623	PCI/G	0.6930	RAD	28.0	32.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF22	000069	Borehole	20010710	Radium-226	0.8775	PCI/G	0.7778	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF11	000065	Borehole	20010710	Radium-226	0.9786	PCI/G	0.6754	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF21	000074	Borehole	20010711	Radium-226	1.2970	PCI/G	0.9407	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000088	Borehole	20010712	Radium-226	1.5170	PCI/G	0.8281	RAD	4.0	8.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF17	000067	Borehole	20010710	Radium-226	1.5560	PCI/G	1.1370	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000097	Borehole	20010712	Radium-226	1.5790	PCI/G	0.8938	RAD	32.0	36.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF27	000075	Borehole	20010710	Radium-226	1.6150	PCI/G	1.1660	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF18	000077	Borehole	20010710	Radium-226	1.8280	PCI/G	1.0370	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000093	Borehole	20010712	Radium-226	1.9000	PCI/G	0.9274	RAD	24.0	28.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF38	000017	Borehole	20010706	Thorium-232	0.1896	PCI/G	0.1712	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000090	Borehole	20010712	Thorium-232	0.2634	PCI/G	0.1630	RAD	12.0	16.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF22	000068	Borehole	20010710	Thorium-232	0.2745	PCI/G	0.2609	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000088	Borehole	20010712	Thorium-232	0.2987	PCI/G	0.1232	RAD	4.0	8.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000092	Borehole	20010712	Thorium-232	0.3020	PCI/G	0.1277	RAD	20.0	24.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF27	000075	Borehole	20010710	Thorium-232	0.3177	PCI/G	0.2336	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000097	Borehole	20010712	Thorium-232	0.3187	PCI/G	0.1901	RAD	32.0	36.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000096	Borehole	20010712	Thorium-232	0.3231	PCI/G	0.1483	RAD	32.0	36.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF17	000067	Borehole	20010710	Thorium-232	0.3454	PCI/G	0.2164	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF15	000072	Borehole	20010710	Thorium-232	0.3459	PCI/G	0.2363	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF18	000077	Borehole	20010710	Thorium-232	0.3731	PCI/G	0.1725	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000093	Borehole	20010712	Thorium-232	0.3739	PCI/G	0.1776	RAD	24.0	28.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000089	Borehole	20010712	Thorium-232	0.3934	PCI/G	0.1435	RAD	8.0	12.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF16	000070	Borehole	20010710	Thorium-232	0.4425	PCI/G	0.1818	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF11	000065	Borehole	20010710	Thorium-232	0.4617	PCI/G	0.2177	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000087	Borehole	20010712	Thorium-232	0.4930	PCI/G	0.1584	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000094	Borehole	20010712	Thorium-232	0.5127	PCI/G	0.1214	RAD	28.0	32.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF21	000074	Borehole	20010711	Thorium-232	0.5202	PCI/G	0.1296	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF72	000093	Borehole	20010712	Toluene	2.0000	UG/KG		ORVOA	24.0	28.0	108-88-3	J		TF2001	Soil	Auger, hollow stem	
TF72	000094	Borehole	20010712	Toluene	2.0000	UG/KG		ORVOA	28.0	32.0	108-88-3	J		TF2001	Soil	Auger, hollow stem	
11N16	11N16	Surface lo	19941004	Total Aromatic Hydrocarbons	1149777.0000	IC		GENERA	0.0	1.5	AHYD			2680	Soil	Auger, hand	
11N16	11N16	Surface lo	19941004	Total C5 TO C11 Petroleum Hyd	1849738.0000	IC		GENERA	0.0	1.5	TOGRHY			2680	Soil	Auger, hand	
11N16	11N16	Surface lo	19941004	Total Semivolatile Hydrocarbons	29835.0000	IC		GENERA	0.0	1.5	TSVHYC			2680	Soil	Auger, hand	

1	107-06-2	1,2-Dichloroethane	3.20E+00	MG/KG
1	118-96-7	2,4,6-Trinitrotoluene	1.91E+02	MG/KG
1	72-55-9	4,4'-DDE	9.00E+00	MG/KG
1	50-29-3	4,4'-DDT	9.00E+00	MG/KG
1	309-00-2	Aldrin	1.80E-01	MG/KG
1	5103-71-9	Alpha Chlordane	8.50E+00	MG/KG
1	12672-29-6	Aroclor-1248	3.85E-01	MG/KG
1	11096-82-5	Aroclor-1260	3.85E-01	MG/KG
1	7440-38-2	Arsenic	1.20E+03	MG/KG
1	71-43-2	Benzene	8.90E+00	MG/KG
1	56-55-3	Benzo(a)anthracene	4.10E+00	MG/KG
1	50-32-8	Benzo(a)pyrene	4.10E-01	MG/KG
1	205-99-2	Benzo(b)fluoranthene	4.10E+00	MG/KG
1	207-08-9	Benzo(k)fluoranthene	4.10E+01	MG/KG
1	7440-41-7	Beryllium	7.00E-01	MG/KG
1	319-85-7	Beta-BHC	1.65E+00	MG/KG
1	117-81-7	Bis(2-ethylhexyl)phthalate	2.15E+02	MG/KG
1	75-27-4	Bromodichloromethane	4.80E+01	MG/KG
1	75-25-2	Bromoform	3.75E+02	MG/KG
1	7440-43-9	Cadmium	1.00E+04	MG/KG
1	56-23-5	Carbon Tetrachloride	4.60E+00	MG/KG
1	67-66-3	Chloroform	3.10E+00	MG/KG
1	7440-47-3	Chromium	1.50E+03	MG/KG
1	218-01-9	Chrysene	4.10E+02	MG/KG
1	53-70-3	Dibenz(a,h)anthracene	4.10E-01	MG/KG
1	124-48-1	Dibromochloromethane	3.55E+01	MG/KG
1	75-09-2	Dichloromethane	3.95E+02	MG/KG
1	60-57-1	Dieldrin	1.85E-01	MG/KG
1	5103-74-2	Gamma Chlordane	8.50E+00	MG/KG
1	58-89-9	Gamma-BHC (Lindane)	2.30E+00	MG/KG
1	76-44-8	Heptachlor	0.66	MG/KG
1	1024-57-3	Heptachlor Epoxide	0.33	MG/KG
1	193-39-5	Indeno(1,2,3-cd)pyrene	4.10E+00	MG/KG
1	78-59-1	Isophorone	3.15E+03	MG/KG
1	86-30-6	N-Nitrosodiphenylamine	6.00E+02	MG/KG
1	87-86-5	Pentachlorophenol	2.50E+01	MG/KG
1	121-82-4	RDX	2.70E+01	MG/KG
1	79-01-6	Trichloroethene	4.10E+01	MG/KG
1	7440-41-7	1,1,1,2-Tetrachloroethane	1.10E-02	MG/L
1	7440-38-2	1,1,2,2-Tetrachloroethane	1.40E-03	MG/L
1	7440-34-8	Actinium-227	4.50E-01	PCI/G
1	14596-10-2	Americium-241	6.30E+00	PCI/G
1	13982-38-2	Bismuth-207	1.60E-01	PCI/G
1	10045-97-3	Cesium-137	3.40E-01	PCI/G
1	10198-40-0	Cobalt-60	7.00E-02	PCI/G
1	14255-04-0	Lead-210	6.20E-01	PCI/G
1	13981-16-3	Plutonium-238	6.10E+00	PCI/G
1	15117-48-3	Plutonium-239	5.50E+00	PCI/G

1	PU239/240	Plutonium-240		5.50E+00	PCI/G
1	13966-00-2	Potassium-40		1.42E+00	PCI/G
1	14331-85-2	Protactinium-231		3.90E-01	PCI/G
1	13982-63-3	Radium-226		9.00E-02	PCI/G
1	10098-97-2	Strontium-90		3.00E+00	PCI/G
1	14274-82-9	Thorium-228		1.40E-01	PCI/G
1	14269-63-7	Thorium-230		9.00E-02	PCI/G
1	7440-29-1	Thorium-232		7.00E-02	PCI/G
1	10028-17-8	Tritium		2.35E+04	PCI/G
1	13968-55-3	Uranium-233		9.68E-01	PCI/G
1	13966-29-5	Uranium-234		1.05E+01	PCI/G
1	15117-96-1	Uranium-235		1.60E+00	PCI/G
1	24678-82-8	Uranium-238		1.00E-01	PCI/G
1	14596-10-2	Americium-241		4.90E-01	PCI/L
1	14331-79-4	Bismuth-210		2.20E+01	PCI/L
1	15262-20-1	Radium-228		3.30E-01	PCI/L
1	13967-73-2	Strontium-85		1.10E+02	PCI/L
1	10098-97-2	Strontium-90		3.90E+00	PCI/L
1	15623-47-9	Thorium-227		4.00E+00	PCI/L
1	14274-82-9	Thorium-228		6.90E-01	PCI/L
1	14269-63-7	Thorium-230		1.20E-01	PCI/L
1	7440-29-1	Thorium-232		3.10E-01	PCI/L
1	24678-82-8	Uranium-238		1.10E-01	PCI/L
2	72-54-8	4,4'-DDD		4.2	MG/KG
2	72-55-9	4,4'-DDE		4.3	MG/KG
2	50-29-3	4,4'-DDT		13	MG/KG
2	309-00-2	Aldrin	ND		MG/KG
2	5103-71-9	Alpha Chlordane	ND		MG/KG
2	319-84-6	Alpha-BHC	ND		MG/KG
2	7429-90-5	Aluminum		19000	MG/KG
2	14596-10-2	Americium-241	ND		MG/KG
2	12672-29-6	Aroclor-1248	ND		MG/KG
2	11097-69-1	Aroclor-1254		58	MG/KG
2	11096-82-5	Aroclor-1260	ND		MG/KG
2	7440-38-2	Arsenic		8.6	MG/KG
2	7440-39-3	Barium		180	MG/KG
2	7440-41-7	Beryllium		1.3	MG/KG
2	319-85-7	Beta-BHC	ND		MG/KG
2	7440-69-9	Bismuth	ND		MG/KG
2	13982-38-2	Bismuth-207	ND		MG/KG
2	13982-38-2	Bismuth-207	ND		MG/KG
2	14331-79-4	Bismuth-210m	ND		MG/KG
2	7440-43-9	Cadmium		2.1	MG/KG
2	7440-70-2	Calcium		310000	MG/KG
2	7440-47-3	Chromium		20	MG/KG
2	7440-48-4	Cobalt		19	MG/KG
2	7440-50-8	Copper		26	MG/KG
2	57-12-5	Cyanide	ND		MG/KG

2	60-57-1	Dieldrin	ND	MG/KG
2	959-98-8	Endosulfan I	ND	MG/KG
2	1031-07-8	Endosulfan Sulfate	ND	MG/KG
2	72-20-8	Endrin	ND	MG/KG
2	7421-93-4	Endrin Aldehyde	ND	MG/KG
2	53494-70-5	Endrin Ketone	ND	MG/KG
2	5103-74-2	Gamma Chlordane	ND	MG/KG
2	58-89-9	Gamma-BHC (Lindane)	ND	MG/KG
2	76-44-8	Heptachlor	ND	MG/KG
2	1024-57-3	Heptachlor Epoxide	ND	MG/KG
2	77-47-4	Hexachlorocyclopentadiene	ND	MG/KG
2	7439-89-6	Iron	35000	MG/KG
2	7439-92-1	Lead	48	MG/KG
2	7439-93-2	Lithium	26	MG/KG
2	7439-95-4	Magnesium	40000	MG/KG
2	7439-96-5	Manganese	1400	MG/KG
2	7439-97-6	Mercury	ND	MG/KG
2	72-43-5	Methoxychlor	30	MG/KG
2	7439-98-7	Molybdenum	27	MG/KG
2	7440-02-0	Nickel	32	MG/KG
2	7440-09-7	Potassium	1900	MG/KG
2	7782-49-2	Selenium	ND	MG/KG
2	7440-22-4	Silver	1.7	MG/KG
2	7440-23-5	Sodium	240	MG/KG
2	7440-28-0	Thallium	0.46	MG/KG
2	7440-31-5	Tin	20	MG/KG
2	7440-62-2	Vanadium	25	MG/KG
2	7440-66-6	Zinc	140	MG/KG
2	7440-34-8	Actinium-227	1.10E-01	PCI/G
2	10045-97-3	Cesium-137	0.42	PCI/G
2	14255-04-0	Lead-210	1.20E+00	PCI/G
2	13981-16-3	Plutonium-238	0.13	PCI/G
2	15117-48-3	Plutonium-239	1.80E-01	PCI/G
2	PU239/240	Plutonium-240	1.80E-01	PCI/G
2	13966-00-2	Potassium-40	37	PCI/G
2	14331-85-2	Protactinium-231	1.10E-01	PCI/G
2	13982-63-3	Radium-226	2	PCI/G
2	10098-97-2	Strontium-90	0.72	PCI/G
2	14274-82-9	Thorium-228	1.5	PCI/G
2	14269-63-7	Thorium-230	1.9	PCI/G
2	7440-29-1	Thorium-232	1.4	PCI/G
2	10028-17-8	Tritium	1.6	PCI/G
2	13966-29-5	Uranium-234	1.1	PCI/G
2	15117-96-1	Uranium-235	0.11	PCI/G
2	24678-82-8	Uranium-238	1.2	PCI/G
3	7439-92-1	Lead	400	MG/KG
3	7440-34-8	Actinium-227	5.60E-01	PCI/G
3	14596-10-2	Americium-241	6.3	PCI/G

3	10045-97-3	Cesium-137	0.76	PCI/G
3	10198-40-0	Cobalt-60	7.00E-02	PCI/G
3	14255-04-0	Lead-210	1.80E+00	PCI/G
3	13981-16-3	Plutonium-238	55	PCI/G
3	14331-85-2	Protactinium-231	4.00E+00	PCI/G
3	13982-63-3	Radium-226	2.1	PCI/G
3	14274-82-9	Thorium-228	3	PCI/G
3	14269-63-7	Thorium-230	3	PCI/G
3	7440-29-1	Thorium-232	1.47	PCI/G
3	15117-96-1	Uranium-235	1.7	PCI/G
3	24678-82-8	Uranium-238	1.3	PCI/G
5	71-55-6	1,1,1-Trichloroethane	0.2	MG/L
5	79-00-5	1,1,2-Trichloroethane	0.005	MG/L
5	75-35-4	1,1-Dichloroethene	0.007	MG/L
5	120-82-1	1,2,4-Trichlorobenzene	0.07	MG/L
5	156-59-2	1,2-cis-Dichloroethene	0.07	MG/L
5	106-93-4	1,2-Dibromoethane	0.00005	MG/L
5	95-50-1	1,2-Dichlorobenzene	0.6	MG/L
5	107-06-2	1,2-Dichloroethane	0.005	MG/L
5	78-87-5	1,2-Dichloropropane	0.005	MG/L
5	156-60-5	1,2-trans-Dichloroethene	0.01	MG/L
5	106-46-7	1,4-Dichlorobenzene	0.075	MG/L
5	95-95-4	2,4,5-Trichlorophenol	0.05	MG/L
5	94-75-7	2,4-D	0.07	MG/L
5	7440-36-0	Antimony	0.0006	MG/L
5	7440-38-2	Arsenic	0.05	MG/L
5	7440-39-3	Barium	2	MG/L
5	71-43-2	Benzene	0.005	MG/L
5	50-32-8	Benzo(a)pyrene	0.002	MG/L
5	7440-41-7	Beryllium	0.004	MG/L
5	117-81-7	bis(2-ethylhexyl)phthalate	0.006	MG/L
5	75-27-4	Bromodichloromethane	0.008	MG/L
5	75-25-2	Bromoform	0.008	MG/L
5	7440-43-9	Cadmium	0.005	MG/L
5	56-23-5	Carbon Tetrachloride	0.005	MG/L
5	57-74-9	Chlordane	0.002	MG/L
5	108-90-7	Chlorobenzene	0.1	MG/L
5	67-66-3	Chloroform	0.008	MG/L
5	7440-47-3	Chromium	0.1	MG/L
5	7440-50-8	Copper	1.3	MG/L
5	57-12-5	Cyanide	0.2	MG/L
5	96-12-8	Dibromochloropropane	0.0002	MG/L
5	75-09-2	Dichloromethane (Methylene Chloride)	0.005	MG/L
5	88-85-7	Dinoseb	0.007	MG/L
5	1746-01-6	Dioxin	0.00000003	MG/L
5	72-20-8	Endrin	0.002	MG/L
5	100-41-4	Ethylbenzene	0.07	MG/L
5	16984-48-8	Flouride	4	MG/L

5	58-89-9	Gamma-BHC (Lindane)	0.0002	MG/L
5	76-44-8	Heptachlor	0.0004	MG/L
5	1024-57-3	Heptachlor Epoxide	0.0002	MG/L
5	118-74-1	Hexachlorobenzene	0.001	MG/L
5	77-47-4	Hexachlorocyclopentadiene	0.05	MG/L
5	7439-92-1	Lead	0.015	MG/L
5	7439-97-6	Mercury	0.002	MG/L
5	72-43-5	Methoxychlor	0.04	MG/L
5	7440-02-0	Nickel	0.1	MG/L
5	NO3	Nitrate	10	MG/L
5	14797-65-0	Nitrite	1	MG/L
5	87-86-5	Pentachlorophenol	0.001	MG/L
5	7782-49-2	Selenium	0.05	MG/L
5	100-42-5	Styrene	0.1	MG/L
5	127-18-4	Tetrachloroethene	0.005	MG/L
5	7440-28-0	Thallium	0.002	MG/L
5	108-88-3	Toluene	1	MG/L
5	8001-35-2	Toxaphene	0.003	MG/L
5	79-01-6	Trichloroethene	0.005	MG/L
5	75-01-4	Vinyl Chloride	0.002	MG/L
5	1330-20-7	Xylenes, Total	10	MG/L
5	7440-34-8	Actinium-227	0.4	PCI/L
5	14596-10-2	Americium-241	1.2	PCI/L
5	13982-38-2	Bismuth-207	1200	PCI/L
5	10045-97-3	Cesium-137	120	PCI/L
5	10198-40-0	Cobalt-60	400	PCI/L
5	13981-16-3	Plutonium-238	1.6	PCI/L
5	13982-63-3	Radium-226	4	PCI/L
5	10098-97-2	Strontium-90	40	PCI/L
5	14274-82-9	Thorium-228	16	PCI/L
5	14269-63-7	Thorium-230	12	PCI/L
5	7440-29-1	Thorium-232	2	PCI/L
5	10028-17-8	Tritium	20000	PCI/L
5	13968-55-3	Uranium-233	20	PCI/L
5	13966-29-5	Uranium-234	20	PCI/L
5	15117-96-1	Uranium-235	24	PCI/L
5	24678-82-8	Uranium-238	24	PCI/L
6	76-13-1	1,1,2-Trichloro-1,2,2triflouroethane	7.00E+04	MG/KG
6	75-34-3	1,1-Dichloroethane	7.80E+00	MG/KG
6	120-82-1	1,2,4-Trichlorobenzene	2.04E+04	MG/KG
6	156-59-2	1,2-cis-Dichloroethene	2.13E+03	MG/KG
6	156-60-5	1,2-trans-Dichloroethene	4.30E+03	MG/KG
6	99-65-0	1,3-Dinitrobenzene	2.00E+02	MG/KG
6	118-96-7	2,4,6-Trinitrotoluene	1.00E+03	MG/KG
6	78-93-3	2-Butanone	9.30E+03	MG/KG
6	95-57-8	2-Chlorophenol	1.06E+03	MG/KG
6	108-10-1	2-Methyl-4-pentanone	7.00E+02	MG/KG
6	50-29-3	4,4'-DDT	1.10E+02	MG/KG

6	106-44-5	4-Methylphenol	1.10E+03	MG/KG
6	67-64-1	Acetone	2.10E+04	MG/KG
6	309-00-2	Aldrin	6.4	MG/KG
6	5103-71-9	Alpha Chlordane	110	MG/KG
6	7429-90-5	Aluminum	210000	MG/KG
6	120-12-7	Anthracene	6.40E+04	MG/KG
6	7440-36-0	Antimony	8.50E+01	MG/KG
6	11097-69-1	Aroclor-1254	4.30E+00	MG/KG
6	7440-38-2	Arsenic	6.40E+01	MG/KG
6	7440-39-3	Barium	1.50E+04	MG/KG
6	65-85-0	Benzoic Acid	8.50E+05	MG/KG
6	7440-41-7	Beryllium	1.10E+03	MG/KG
6	117-81-7	Bis(2-ethylhexyl)phthalate	4.30E+03	MG/KG
6	75-27-4	Bromodichloromethane	4.30E+03	MG/KG
6	75-25-2	Bromoform	4.30E+03	MG/KG
6	85-68-7	Butyl Benzyl Phthalate	4.30E+04	MG/KG
6	7440-43-9	Cadmium	2.10E+02	MG/KG
6	75-15-0	Carbon Disulfide	2.80E+02	MG/KG
6	56-23-5	Carbon Tetrachloride	1.50E+02	MG/KG
6	75-00-3	Chloroethane	1.60E+02	MG/KG
6	67-66-3	Chloroform	2.10E+03	MG/KG
6	7440-47-3	Chromium	1.10E+03	MG/KG
6	18540-29-9	Chromium-VI	6.39E+02	MG/KG
6	7440-50-8	Copper	7.90E+03	MG/KG
6	57-12-5	Cyanide	4.30E+03	MG/KG
6	53-70-3	Dibenz(a,h)anthracene	4.08E-02	MG/KG
6	124-48-1	Dibromochloromethane	4.30E+03	MG/KG
6	75-09-2	Dichloromethane	1.00E+03	MG/KG
6	60-57-1	Dieldrin	1.10E+01	MG/KG
6	84-74-2	Di-n-butyl Phthalate	2.10E+04	MG/KG
6	117-84-0	Di-n-octyl Phthalate	4.30E+03	MG/KG
6	959-98-8	Endosulfan I	1300	MG/KG
6	33213-65-9	Endosulfan II	1300	MG/KG
6	100-41-4	Ethylbenzene	4.80E-01	MG/KG
6	86-73-7	Flourene	8.50E+03	MG/KG
6	206-44-0	Fluoranthene	8.50E+03	MG/KG
6	5103-74-2	Gamma Chlordane	110	MG/KG
6	58-89-9	Gamma-BHC (Lindane)	64	MG/KG
6	76-44-8	Heptachlor	110	MG/KG
6	1024-57-3	Heptachlor Epoxide	2.8	MG/KG
6	110-54-3	Hexane	9.10E+01	MG/KG
6	193-39-5	Indeno(1,2,3-cd)pyrene	4.08E-01	MG/KG
6	78-59-1	Isophorone	4.30E+04	MG/KG
6	7439-96-5	Manganese	2.70E+04	MG/KG
6	7439-97-6	Mercury	6.40E+01	MG/KG
6	72-43-5	Methoxychlor	1100	MG/KG
6	7440-02-0	Nickel	4.30E+03	MG/KG
6	87-86-5	Pentachlorophenol	6.40E+03	MG/KG

6	108-95-2	Phenol	1.30E+05	MG/KG
6	129-00-0	Pyrene	6.40E+03	MG/KG
6	7782-49-2	Selenium	1100	MG/KG
6	7440-22-4	Silver	1.10E+03	MG/KG
6	127-18-4	Tetrachloroethene	2.10E+03	MG/KG
6	7440-28-0	Thallium	17	MG/KG
6	7440-31-5	Tin	130000	MG/KG
6	108-88-3	Toluene	2.50E+02	MG/KG
6	75-69-4	Trichlorofluoromethane	7.30E+02	MG/KG
6	7440-62-2	Vanadium	1.50E+03	MG/KG
6	1330-20-7	Xylenes, Total	4.30E+05	MG/KG
6	7440-66-6	Zinc	6.40E+04	MG/KG
6	7440-41-7	1,1,1,2-Tetrachloroethane	2.90E-01	MG/L
6	7440-38-2	1,1,2,2-Tetrachloroethane	2.50E-01	MG/L
6	71-55-6	1,1,1-Trichloroethane	1.80E+00	MG/L
6	76-13-1	1,1,2-Trichloro-1,2,2triflouroethane	2.50E+03	MG/L
6	7429-90-5	Aluminum	100	MG/L
6	7440-42-8	Boron	9.00E+00	MG/L
6	18540-29-9	Chromium-VI	3.00E-01	MG/L
6	7440-48-4	Cobalt	6	MG/L
6	7440-50-8	Copper	4.00E+00	MG/L
6	7439-98-7	Molybdenum	0.5	MG/L
6	7782-49-2	Selenium	0.5	MG/L
6	7440-28-0	Thallium	0.008	MG/L
6	7440-31-5	Tin	60	MG/L
6	2691-41-0	HMX	1.10E+04	UG/KG
6	121-82-4	RDX	6.40E+04	UG/KG

1 Value is 10-6 Risk-Based Guide Value
2 Value is OU9 Soil Background Value
3 Value is screening level
5 Value is MCL
6 Value is the Guide Value based on the hazard index

Note:
Edited on 10/08/01
01/29/02 Removed all color

Appendix M

Occurrence Reports

OH-MB-EGGM-EGGMAT03-1996-0001 Final Report

Occurrence Report

Main Hill Facilities

(Name of Facility)

Explosive

(Facility Function)

Mound Plant EG&G Mound Applied Technologies

(Laboratory, Site, or Organization)

Name: Boston, Jeffrey L.
Title: Property Manager **Telephone No.:** (513) 865-3262

(Facility Manager/Designee)

Name: BOSTON, JEFFREY L
Title: BLDG MGR EXPLOSIVE FACILITIES **Telephone No.:** (513) 865-3262

(Originator/Transmitter)

Name: D. W. Organ **Date:** 02/01/1996

(Authorized Classifier (AC))

1. Occurrence Report Number: OH-MB-EGGM-EGGMAT03-1996-0001

Discovery of Radioactive Contamination in Building 63

2. Report Type and Date: Final

	Date	Time
Notification:	01/23/1996	12:36 (MTZ)
Initial Update:	02/05/1996	09:11 (MTZ)
Latest Update:	02/05/1996	09:11 (MTZ)
Final:	03/04/1996	11:47 (MTZ)

3. Occurrence Category: Off-Normal

4. Number of Occurrences: 1 **Original OR:**

5. Division or Project: EG&G MOUND APPLIED TECHNOLOGIES

6. Secretarial Office: EM - Environmental Management

7. System, Bldg., or Equipment: Building 63 - Contamination

8. UCNI?: No

9. Plant Area: Lower Plant Area

10. Date and Time Discovered: 01/22/1996 11:00 (ETZ)

11. Date and Time Categorized: 01/22/1996 11:00 (ETZ)

12. DOE Notification:

13. Other Notifications:

Date	Time	Person Notified	Organization
01/22/1996	11:00 (ETZ)	R. E. Berry	DOE/MB

14. Subject or Title of Occurrence:

Discovery of Radioactive Contamination in Building 63

15. Nature of Occurrence:

01) Facility Condition
D. Loss of Control of Radioactive Material/Spread of Radioactive Contamination

16. Description of Occurrence:

At approximately 1500 hours (ETZ) on Monday 1/15/96 an RCT performing a safe shutdown survey in Building 63E discovered a Hewlett Packard Function Generator (Model #3300a/3301a) which was found to have direct alpha contamination reading 1005 dpm/100 cm2 on the top of its case where a sticky residue of some type was observed.

The reading was taken with an NE electra survey meter. The wipes used to decontaminate the surface were sent to isotopic identification and Gamma Spectroscopy was inconclusive. Additional radiological contamination was found from wipes taken inside the equipment, with results of 1069 dpm/100 cm2 alpha (determined by Gamma spectroscopy to be Plutonium-238) and 3020 dpm/100 cm2 for Tritium.

An Occurrence Critique Meeting was convened on 01/22/96 to evaluate the equipment history, analytical results, and establish corrective actions.

This Occurrence Report was reviewed by an Authorized Derivative Classifier (D. W. Organ, Internal Audits) on 02/01/96 at 1600 hours (ETZ) and contains no Classified or UCNI Information.

17. Operating Conditions of Facility at Time of Occurrence:

Normal Daytime Operating Conditions

18. Activity Category:

03 - Normal Operations

19. Immediate Actions Taken and Results:

The contaminated item was isolated and then the RCT used a damp rag to wipe off the surface. Follow-up direct readings

showed no contamination. The equipment was moved to a Radiological Controlled area for further evaluations.

An Occurrence Critique Meeting was held to evaluate the wipe data and determine corrective actions.

20. Direct Cause:

8) Radiological/Hazardous Material Problem
A. Legacy Contamination

21. Contributing Cause(s):

22. Root Cause:

8) Radiological/Hazardous Material Problem
A. Legacy Contamination

23. Description of Cause:

The Direct Cause and Root Cause of this occurrence was Legacy Contamination that was discovered during safe shutdown activities of High Risk Assessment of equipment prior to transferring to Economic Development for release for public use.

24. Evaluation (by Facility Manager/Designee):

The reason that the Legacy Contamination was discovered and classified as such was the use of improved detection equipment and more stringent contamination criteria than was used or available when the equipment was originally removed from a Radiologically Controlled Area (7 or 8 years ago).

25. Is Further Evaluation Required?: No

26. Corrective Actions
(* = Date added/revised since final report was approved.)

1. RADCON Operations will utilize the Property Management Database to evaluate the need to survey equipment that was historically located in Radiological areas.

Target Completion Date: 03/01/1996	***Completion Date:** 03/12/1996

2. RADCON Operations will assess the existing Radiological Survey Process to ensure it is adequate for all equipment leaving the plant site.

Target Completion Date: 09/01/1996	***Completion Date:** 09/18/1996

27. Impact on Environment, Safety and Health:

None

28. Programmatic Impact:

None

29. Impact on Codes and Standards:

None

30. Lessons Learned:

The consensus of the investigating team was that the equipment was tested for contamination before it was removed from the Radiological Controlled Area, but that was determined to be 7 or 8 years ago when the criteria was less stringent and equipment used was not capable of measuring the levels found.

The recommendations were to utilize corrective actions to evaluate the current RADCON procedures to ensure that they are adequate for all equipment leaving the site and to utilize the Property-Management Database to locate other equipment with history of use in Radiologically Controlled areas in order to evaluate for contamination.

31. Similar Occurrence Report Numbers:

1. None

32. User-defined Field #1:

33. User-defined Field #2:

34. DOE Facility Representative Input:

35. DOE Program Manager Input:

36. Approvals:

Approved by: Boston, Jeffrey L., Facility Manager/Designee
Date: 02/05/1996
Telephone No.: (513) 865-3262

Approved by: BERRY, RONALD E, Facility Representative/Designee
Date: 02/08/1996
Telephone No.: (513) 865-4836

Approved by: WORLEY, MICHAEL NEWTON, Program Manager/Designee
Date: 03/04/1996
Telephone No.: (301) 903-2153

ALO-DA-EGGM-EGGMAT04-1993-0012 Final Report

Occurrence Report

Sites and Grounds

(Name of Facility)

Balance-of-Plant

(Facility Function)

Mound Plant EG&G Mound Applied Technologies

(Laboratory, Site, or Organization)

Name: Yonko, Jon D.
Title: Manager, Facilities Maint. & Util. **Telephone No.:** (513) 865-3151

(Facility Manager/Designee)

Name: C. Keith Ohler
Title: Mgr., Sys. Engineering & Maintenance **Telephone No.:** (513) 865-3340

(Originator/Transmitter)

Name: J. D. Yonko **Date:** 07/01/1993

(Authorized Classifier (AC))

1. Occurrence Report Number: ALO-DA-EGGM-EGGMAT04-1993-0012

Evacuation of Building 63 as result of smoke alarm

2. Report Type and Date: Final

	Date	Time
Notification:	06/02/1993	14:36 (MTZ)
Initial Update:	06/15/1993	14:28 (MTZ)
Latest Update:	06/15/1993	14:28 (MTZ)
Final:	07/09/1993	05:25 (MTZ)

3. Occurrence Category: Off-Normal

4. Number of Occurrences: 1 **Original OR:**

5. Division or Project: EG&G Mound Applied Technologies

6. Secretarial Office: DP - Defense Programs

7. System, Bldg., or Equipment: Building 63E

8. UCNI?: No

9. Plant Area: Lower Plant Area

10. Date and Time Discovered: 06/01/1993 08:30 (ETZ)

11. Date and Time Categorized: 06/01/1993 10:30 (ETZ)

12. DOE Notification:

Date	Time	Person Notified	Organization
06/01/1993	10:40 (ETZ)	Fred B. Holbrook	DOE/DAO

13. Other Notifications:

14. Subject or Title of Occurrence:

Evacuation of Building 63 as result of smoke alarm

15. Nature of Occurrence:

01) Facility Condition
H. Operations

16. Description of Occurrence:

On 06/01/93 at 0830 hours (ETZ) a technician in the Test System Engineering Group was fabricating a replacement part for a test fixture using hardened steel. While cutting the steel using a cross-fill saw, the blade on the saw overheated and emitted smoke. The smoke in the fabrication area was sufficient to activate a nearby smoke detector. When the alarm activated, the building was evacuated. Following an inspection of the area and the discovery of the cause for the alarm, the building was returned to normal operation.

This Occurrence Report was reviewed by an Authorized Derivative Classified (J. D. Yonko) on 07/01/93 at 1100 hours (ETZ) and contains no classified or UCNI Information.

17. Operating Conditions of Facility at Time of Occurrence:

Normal First Shift Operating Conditions

18. Activity Category:

03 - Normal Operations

19. Immediate Actions Taken and Results:

Cutting operation was halted and building returned to normal operations. The technician was instructed to notify the Fire Department before beginning cutting operations on hardened steel using the cross-fill saw.

20. Direct Cause:

4) Design Problem
B. Inadequate or Defective Design

21. Contributing Cause(s):

4) Design Problem
A. Inadequate Work Environment

22. Root Cause:

4) Design Problem
B. Inadequate or Defective Design

23. Description of Cause:

The fumes emitted by a cross-fill saw while cutting a piece of hardened steel caused a smoke detector alarm located above the saw to activate. The smoke detector will be relocated to another location in the room not as subject to the fumes.

24. Evaluation (by Facility Manager/Designee):

The location of the smoke detector was evaluated. In addition, a procedure to notify the fire department prior to cutting with the saw has been established.

25. Is Further Evaluation Required?: No

26. Corrective Actions
(* = Date added/revised since final report was approved.)

1. Establish a procedure and post sign over cross-fill saw requiring that the fire department be notified before using.

Target Completion Date: 06/07/1993	**Completion Date:** 06/07/1993

2. Relocate smoke alarm in the room.

***Target Completion Date:** 10/01/1993	***Completion Date:** 09/05/1993

27. Impact on Environment, Safety and Health:

None

28. Programmatic Impact:

None

29. Impact on Codes and Standards:

None

30. Lessons Learned:

The design and installation of safety alarm systems should be such that normal operations in the area are not affected.

31. Similar Occurrence Report Numbers:

1. None

32. User-defined Field #1:

33. User-defined Field #2:

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34. DOE Facility Representative Input:

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35. DOE Program Manager Input:

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36. Approvals:

Approved by: Yonko, Jon D., Facility Manager/Designee
Date: 07/01/1993
Telephone No.: (513) 865-3151

Approved by: HOLBROOK, FRED B., Facility Representative/Designee
Date: 07/01/1993
Telephone No.:

Approved by: KUMAR, RAMENDRA, Program Manager/Designee
Date: 07/09/1993
Telephone No.: (301) 903-2865

M o u n d Electronic Message/AOS

From :Jeffrey L. Boston
BOSTJL
Dept. :FACILITIES MANAGEMENT
Tel. No :X3262
Date :23-Jan-1996 10:24am EST
Subject :Critique Report 96-0004

CRITIQUE REPORT

A. CRITIQUE REPORT NUMBER: 96-0004
MEETING DATE: January 22, 1996
REPORT DATE: January 24, 1996

B. EVENT OCCURRENCE DATE: January 15, 1996
EVENT OCCURRENCE TIME: 1500 Hours(ETZ)
EVENT OCCURRENCE REPORT: OH-MB-EGGM-EGGMAT03-1996-0001

C. EVENT SUBJECT:

Discovery of Radioactive Contamination in Building #63

D. FACILITY, SYSTEM, OR EQUIPMENT INVOLVED:

Building #63

E. ORGANIZATION(S) INVOLVED:

Safe Shutdown & Health Physics

F. DESCRIPTION OF EVENT:

At approximately 1500 on Monday 1/15/96 an RCT performing a safe shutdown survey in bldg. 63 E discovered a Hewlett Packard Function Generator(model #3300a/3301a) which was found to have direct alpha contamination reading 1005 dpm/100 cm2 on the top of its case where a sticky residue of some type was observed.

The reading was taken with an NE electra survey meter. The wipes used to decontaminate the surface were sent for isotopic identification but Gamma Spectroscopy was inconclusive.

Additonal radiological contamination was found from wipes taken inside the equipment, with results of 1069 dpm/100 cm2 alpha(determined by Gamma spectroscopy to be Plutonium-238) & 3020 dpm/100 cm2 for Tritium.

G. APPARENT CAUSE OF EVENT:

The apparent cause of this event was the use of improved radiological survey equipment and more stringent contamination criteria.

The contaminated equipment was originally entered into the Property Management Control System in 4/68 and located in R-128 with custodian HP#0151. It was subsequently transferred to [redacted] (HP#0018-Retired) located in R-106 in 2/71 and again transferred to [redacted] (HP#3669-Retired) located in R-106 in 8/78. The equipment was declared low value property between 3/82 & 10/83 and no longer tracked by the Property Management System.

[redacted] moved to COS Building 7 or 8 years ago and it is believed he brought the equipment with him. It is universally agreed that the equipment was undoubtedly evaluated for contamination at that time, but not with with current methods or contamination criteria.

The person and method that recently moved the equipment to Building #63 for High Risk Assessement by Safe Shutdown prior to release to MMIC is unknown.

H. APPARENT CAUSE CLASSIFICATION CATEGORIES

___DESIGN	___MATERIAL	___PERSONNEL
_X_PROCEDURE	___SYSTEM	_X_EQUIPMENT
___PROCESS	___OTHER	

I. IMMEDIATE CORRECTIVE ACTIONS(S) TAKEN:

The contaminated item was isolated and then the RCT used a damp rag to wipe off the surface. Follow up direct readings showed no contamination. The equipment was moved to a Radiological Controlled area for further

J. ADDITIONAL CORRECTIVE ACTIONS PLANNED(INCLUDE ASSIGNEES):

1. RADCON Operations will utilize Property Management Database to evaluate the need to survey equipment that was historically located in Radiological Areas.
September 1, 1996 - Ted Quale.

2. RADCON Operations will assess existing Radiological Survey Process to ensure it is adequate for all equipment leaving the Plantsite.
March 1, 1996 - Ted Quale

K. REVIEW CONDUCTED FOR POTENTIAL OF UNREVIEWED SAFETY QUESTIONS(USQ):
YES ___ NO_X_

L. REVIEW CONDUCTED FOR POTENTIAL OF SIMILAR EVENT OCCURRING IN PLANT/SYSTEM: YES___ NO_X_

M. OCCURRENCE REPORT(DOE O 232.1) REQUIRED:

X_ YES(DISTRIBUTE CRITIQUE REPORT AND FILE WITH APPROPRIATE OCCURRENCE REPORT)

__ NO(PROCEED WITH THE CORRECTIVE ACTIONS AND DISTRIBUTION OF CRITIQUE REPORT)

N. MEETING ATTENDEES LISTING(USE FORM PROVIDED AND ATTACH)

MEETING INVITEES LISTING(USE FORM IF APPROPRIATE)

Attendee	Organization	Telephone
Jeffrey L. Boston	T & FM	3262
Ed Hawley	Site Disposition	4437
Steve Collas	Rad Ops	3178
Phil Ryan	Rad Ops	3185
Robert Johnson	Rad Engr	3298
Jeff Rice	T & FM	3377
Ronald E. Berry	DOE/MB	4836
Ted Quale	Radiological Operations	4256
Bill Clark	Facility Management	3621
Tom Bruggeman	Site Deposition	3390

O. SIGNATURES:

CRITIQUE WRITER: Jeffrey L. Boston DATE: January 23, 1996
TITLE: Property Manager
ORGANIZATION: Transition & Facility Management

COGNIZANT MANAGER: Jeffrey L. Boston DATE: January 23, 1996
TITLE: Explosives Facility Manager
ORGANIZATION: Transition & Facility Management

Appendix N

PRS Information

MOUND PLANT

PRS 72

Area 13
Polonium from Dayton Unit IV

RECOMMENDATION:

Potential Release Site (PRS) 72 was identified as the area used in the early 1950s for the storage of contaminated materials (i.e. wood, equipment and other material) brought to Mound from the former Dayton Unit operations. The material was staged in and around Area 13 located in the lower valley (Test Fire) area. PRS 72 was binned Further Assessment (FA) by the Core Team in April of 1996 and again in March 1997. Further Assessment sampling was completed in July of 2001 per the Sampling and Analysis Plan (SAP) approved by the Core Team. The additional sampling events conducted in July did not identify levels of concern.

Therefore, PRS 72 requires NO FURTHER ASSESSMENT.

DOE/MEMP: _____
Robert S. Rothman, Remedial Project Manager

USEPA: _____
Timothy J. Fischer, Remedial Project Manager

OEPA: _____
Brian K. Nickel, Project Manager

SAMPLING AND ANALYSIS PLAN

TEST FIRE VALLEY

DRAFT

Revision 2

June 2001

Department of Energy
Ohio Field Office

BWXT of Ohio, Inc.

- PRS 83 – Building 2 Propane Storage Tank. To be addressed during Building 2 assessment/razing.
- PRS 89 – Test Fire Residual Storage Area (basement of Building 2). To be addressed during Building 2 assessment/razing.
- PRS 319 – Building 49 waste containers for epoxy resin. Binned NFA.
- PRS 330 – Building 2 Fuel Oil Tank (Tank 26). Binned NFA.
- PRS 331 – Building 2 Tank (Tank 261). Binned NFA.
- PRS 362 – OU5 Soil Gas Hot Spot. Binned NFA.
- PRS 364 – OU5 Soil Gas Hot Spot. Binned NFA.

Figure 2 illustrates the current and historic buildings and the PRS locations. A description of the potential release sites associated with this investigation of Test Fire Valley follow.

PRS 72 - Area 13 (DOE 1992, PRS Site Package)

PRS 72 has historically been known as Area 13. Area 13 was used in the late 1940s through early 1950s for the storage of materials contaminated with polonium-210. Area 13 was approximated to be 100-feet by 110-feet in size. PRS 72 makes up the largest aerial extent of the Test Fire Valley investigation area, largely due to uncertainties in the actual location of Area 13. Two areas within Test Fire Valley have been identified as the most probable locations of Area 13. The two probable sites of Area 13, based on a historical data search, are depicted in Figure 2. The east site is located northeast of Building 49 and south of the Mound Plant drainage ditch. The west site is located beneath and south of Building 63.

In 1949, wood, equipment, and other materials were brought to Mound from the former Dayton Unit III and IV operations and staged in and around Area 13. Materials were monitored for alpha contamination associated with the polonium-210. Polonium-210 was produced by extraction as a daughter product of lead-210 or transmutation of bismuth by neutron bombardment. As a result of transmutation of bismuth with neutron irradiation, gamma-emitting longer half-life isotopes byproducts may also be present with the polonium-210. In 1955, wood and lumber too contaminated to be removed from the plant site were soaked with fuel oil and burned in Area 13. Residual materials were subsequently buried in the historic landfill (now known as PRS 10).

PRS 73 - Lower Storage Area (DOE 1992)

PRS 73 has historically been known as the lower storage area and the waste evaporator storage area. PRS 73 was an open area behind what was once the Quonset hut and is now near the southern edge of Building 3. The lower storage area was used to store decommissioned equipment including:

- holding tanks from the Purex pilot plant that had been dismantled (1953);
- waste evaporator equipment that had been capped, decontaminated, and removed from room SW-1B as part of the decontamination and decommissioning (D&D) of the radium-actinium operations (1955 to 1960); and
- equipment from the decommissioned HH sludge facility (1959).

During a 1991 interview, J.M. Garner, EG&G Mound Applied Technologies, suggested that the decontamination procedure employed for the evaporator equipment was an external wash until no wipeable levels were observed (DOE 1992 p.5-12). One report indicated that during the moving of the evaporator, a connector was broken off and the truck was contaminated. No data were given (DOE 1992 pg 2-50).