30 06 0406170011

BWX Technologies, Inc.
a McDermott company

BWXT of Ohio, Inc.
1 Mound Road
P.O. Box 3030
Miamisburg, Ohio 45343-3030
(937) 865-4020

SM-115/02
October 2, 2002

Mr. Richard B. Provencher, Director
Miamisburg Closure Project
U. S. Department of Energy
P. O. Box 66
Miamisburg, OH 45343-0066

ATTENTION: Robert S. Rothman

SUBJECT: Contract No. DE-AC24-97OH20044
VARIOUS DOCUMENTS

REFERENCE: Statement of Work Requirement C.7.1e - Regulator Reports

Dear Mr. Provencher:

Rob Rothman from your office has approved the release of the following final documents to the regulators and the public:

- Closeout Report – Building 42, Final
- Closeout Report – Building 98, Final

If you or members of your staff have any questions regarding the documents, or if additional support is needed, please contact Bob Ransbottom at extension 4220.

Sincerely,

C. D. Thompson
SMPP/TFV Project Manager

CDT/VKD

Enclosures

cc: Tim Fischer, USEPA, (1) w/attachments
Brian Nickel, OEPA, (1) w/attachments
Ruth Vandegrift, ODH, (1) w/attachments
Frank Schmaltz, DOE/MCP, (1) w/attachments
Randy Tormey, DOE/OH, (1) w/attachments
Terry Tracy, DOE/HQ, (1) w/attachments
J. D. Bonfiglio, MESH, (1) w/attachments
Bob Ransbottom, BWXT of Ohio, (1) w/attachments
Val Darnell, BWXT of Ohio, (1) w/attachments
Budd Thompson, BWXT of Ohio, (1) w/attachments
Public Reading Room, (4) w/attachments
DCC

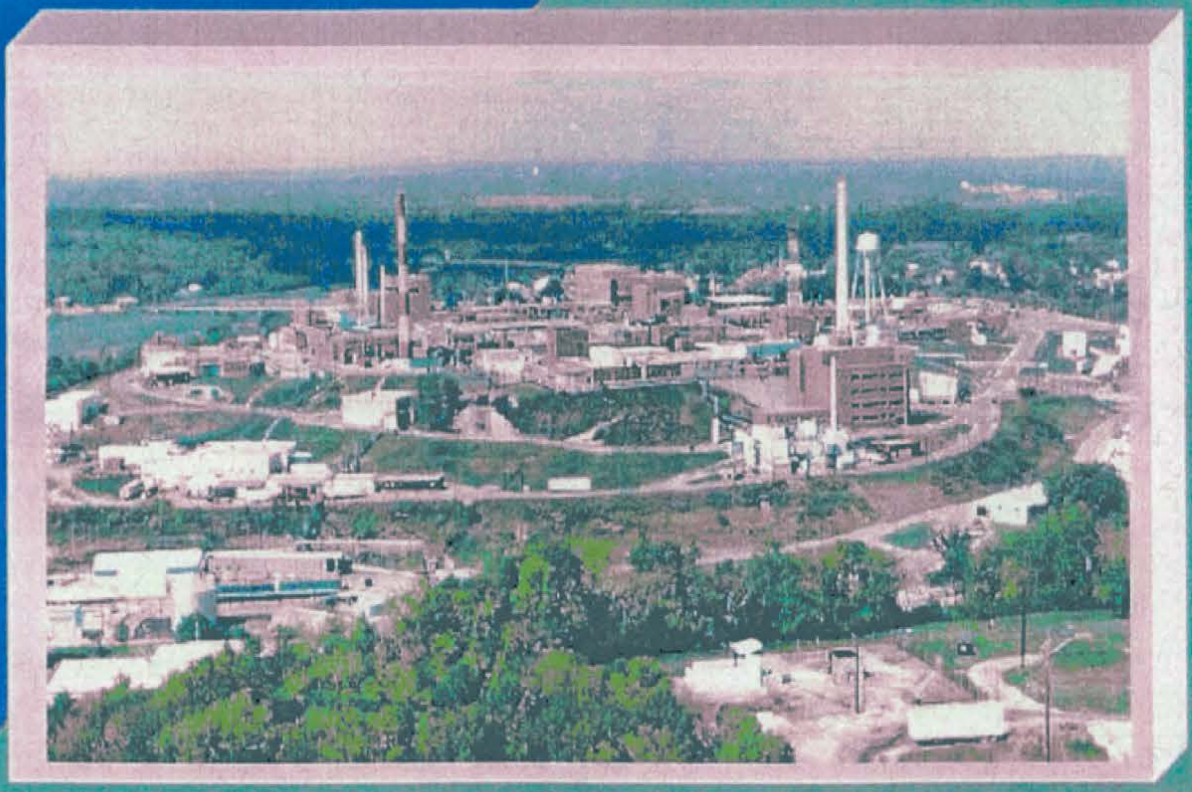
MOUND

Environmental Restoration Program

OhioEPA

MIAMISBURG CLOSURE PROJECT
Closeout Report
Building 42

Final
October 2002



Closeout Report

Building 42

Prepared for:

United States Department of Energy
Miamisburg Closure Project
P.O. Box 3020
Miamisburg, Ohio 45343-3020

Prepared by:

BWXT of Ohio, Inc.

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1.0 PURPOSE

This is the final report documenting completion of the demolition of Building 42 located at the DOE Miamisburg Closure Project Site, as shown in Figures 1 and 2 (Appendix A). The building and pad were demolished per the Work Package for Building 42 Demolition (June 5, 2002), which is included in Appendix B. The scope of work relating to this building is considered complete.

2.0 BACKGROUND

Building 42 was constructed in 1970 in an area known as the lower valley or plant valley area (Figures 1 and 2), west of the test fire area. It was a two-story, 2,892 square-foot building with a combination reinforced concrete and concrete block structure with a built-up membrane coal tar roof. The second floor was a single-room penthouse (approximately 200 square feet) with pre-fabricated metal walls; it contained mechanical equipment and was accessed by a single outside staircase. The first floor had eleven rooms including assembly cells, an electronic equipment room, lavatory, laboratory, office, storage room, and janitor's closet. On the southwestern corner of the building was an attached exterior shed that was used as a drum storage area.

Services to the building were terminated prior to building demolition, but included central steam for heating and chilled water for cooling provided through aboveground pipes. Ventilation was provided by a single-pass HVAC system, which also enabled humidity control. Potable water and sanitary service were provided by the Miamisburg Closure Project facility. The penthouse had non-potable water, which was not distributed through the building. Electric service was 240 volts.

3.0 ACTIONS TAKEN

The Building 42 Building Data Package was submitted for simultaneous Core Team and Public Review on May 29, 2002. The 30-day Public Review period concluded on June 28, 2002. This Closeout Report documents the completion of the removal of the building, pad, foundation, and footer.

All preparation and demolition activities were performed in accordance with the detailed Work Plan (Appendix B) to perform safe shutdown of utilities, maintain site access control, and perform demolition and debris removal. Potential Release Sites (PRSs) 33 and 34 (Underground Sanitary Sewer Line G14 East and West) were associated with Building 42, but will be handled separately from this Closeout Report; they will be grouped with PRSs 31, 32, and 35, which will be handled by the Environmental Restoration group.

Building 42 was radiologically surveyed before and after demolition. All radiological sampling results were below applicable surface release criteria (Appendix C).

Building demolition was completed on July 30, 2002, pad demolition on September 4, 2002, and site restoration on September 5, 2002. The demolition was accomplished as a

non-CERCLA project, per the Building Data Package. Photographs taken before, during, and after demolition are provided in Figure 3.

Demolition material was dispositioned as noted in Table 1.

Table 1 - Materials Disposition

Material	Quantity	Method	Location
Construction Debris (concrete/masonry)	129 cubic yards	Landfill	Stoney Hill
Clean Hard Fill Debris (concrete)	119 cubic yards	Reused	Spoils Area/ Concrete Crusher

4.0 PROBLEMS ENCOUNTERED

Building 42 was successfully demolished per the Work Package, with no variances reported.

5.0 RESOURCES COMMITTED

Table 2 lists the personnel organization for the demolition. Table 3 provides a summary of the total cost.

Table 2 - Personnel Organization for the Demolition

Agency or Party Involved	Contact	Description of Participation
US EPA HSRM-6J 77 W. Jackson Chicago, IL 60604 312-886-5787	Tim Fischer	Federal agency responsible for Miamisburg Closure Project Plant oversight.
Ohio EPA 410 E. Fifth Street Dayton, OH 45402-2911 937-285-6468	Brian Nickel	State agency responsible for Miamisburg Closure Project Plant oversight.
DOE/ Miamisburg Closure Project P.O. Box 66 1 Mound Road Miamisburg, OH 45343-0066 937-865-3620	Frank Schmaltz	DOE/ Miamisburg Closure Project, Project Manager responsible for project oversight and success.

Table 2 - Personnel Organization for the Demolition

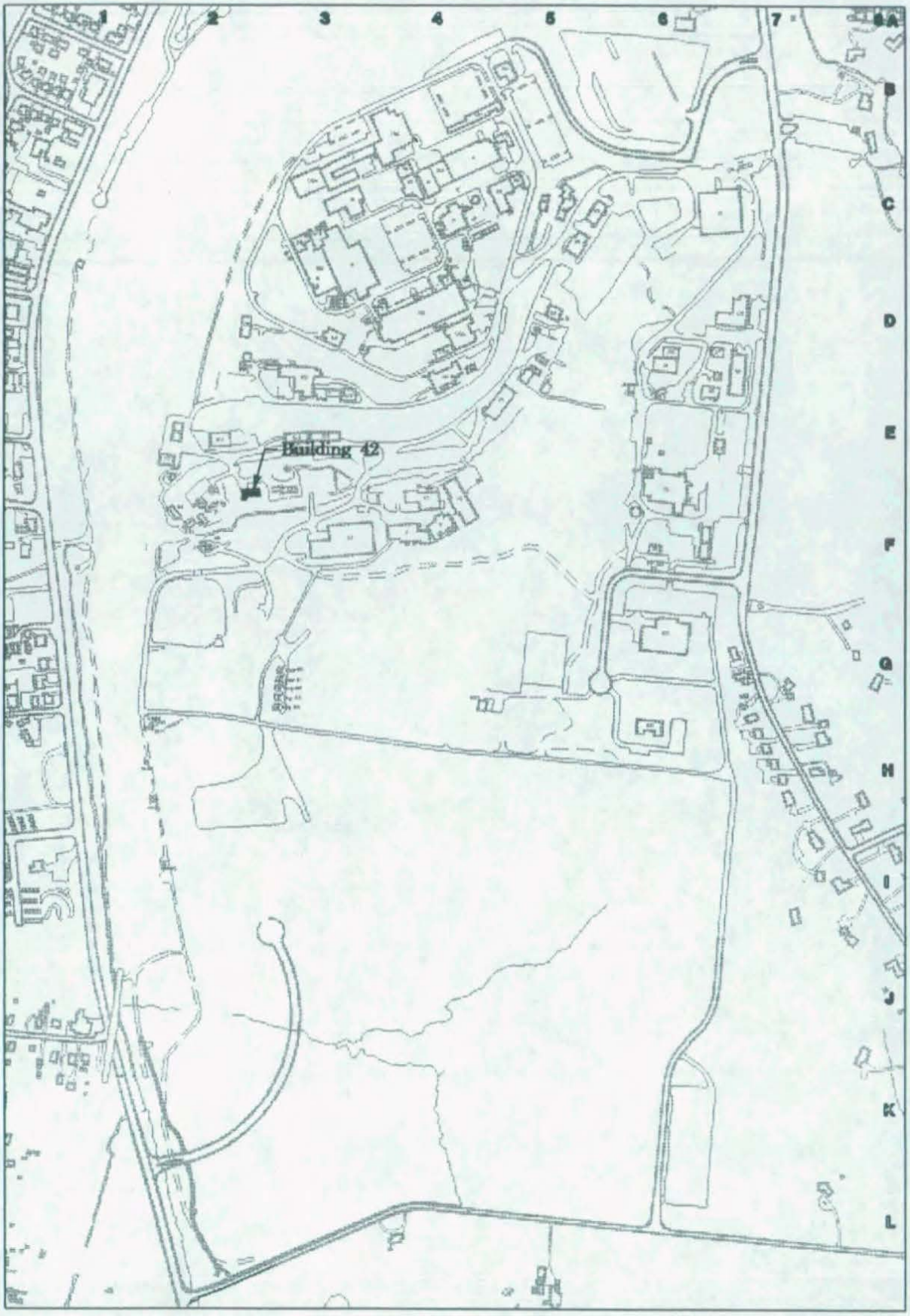
Agency or Party Involved	Contact	Description of Participation
BWXT of Ohio, Inc. SMPP-TFV Project P.O. Box 3030 1 Mound Road Miamisburg, OH 45343-3030 937-865-4071	Budd Thompson	Provided the DOE/ Miamisburg Closure Project, Project Manager with technical assistance, administrative support, sampling, decontamination, photo and site documentation, site safety, and report preparation.
BWXT of Ohio, Inc. General Superintendent and Equipment Manager P.O. Box 3030 1 Mound Road Miamisburg, OH 45343-3030 937-865-4071	Budd Thompson	Provided the personnel and equipment necessary for the demolition.

Table 3 - Total Cost

Summary Activity	Cost
Work Planning	$ 35,000
Safe Shutdown	78,500
Characterization	22,000
Decontamination and Demolition	20,000
Hauling and Disposal	1,791
Total Cost	**$ 157,291**

Appendix A

Figures



Legend

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

0 100 200 400 600 800 1000

Scale In Feet

	04/06/02	ISSUE FOR GENERAL USE	SSP		
REV	DATE	REVISION	BY	CHKD	CKD

MOUND

Environmental Restoration Geographic Information System

UNCLASSIFIED

D gen_site_plan.dgn

Figure 1
Location of Building 42

gen_site_plan.dgn

PRS Point

PRS Area

PRS Line

ISS	DATE	REVISION	BY	CHKR	ENG	LPM/C	APVD	W
	04/06/02		SSP					

MOUND

Environmental Restoration Geographic Information System

SHEET	7	8	9	10	11		13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ISSUE																					
SHEET	1	2	3	4	5	6															
ISSUE	*																				

PART CLASSIFICATION

Figure 2
Building 42 and Vicinity

DRAWING CLASSIFICATION: UNCLASSIFIED

SIZE

DRAWING NUMBER: vicinity.dgn

JOB NUMBER

DWG TYPE STE FRMG ER-CIS CAGEC SCALE SHEET 1 OF

STATUS MD-REL-**/**/** ORIGIN MSTATION / J

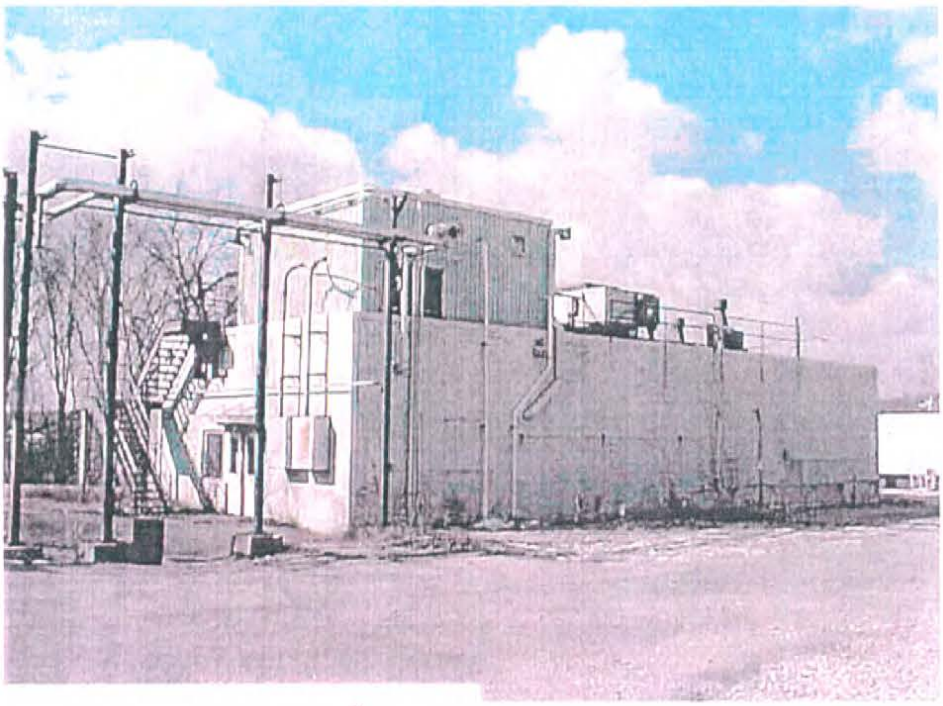


Figure 3:
Building 42

Before, During, and
After Demolition

Work Package

Appendix B

Work Package

WORK PACKAGE / PRELIMINARY HAZARD ANALYSIS

☒ ~ Office Master Copy (Original Approval Signatures) ☐ ~ Field Working Copy (Original Field Sign -Offs) ☐ ~ Review Copy ☐ ~ Other Copy [Note: Mark this section in color]

The Project Engineer is responsible for completing Sections 1 through 10. On subcontractor projects, the subcontractor shall complete sections 6, 9, and 10.

1. WORK PACKAGE TITLE: Building 42 Demolition

2. WORK PACKAGE NUMBER. *SMPP/TFV- 29942-00* | **REQUESTOR: L. Koehmstedt**

1. WORK PACKAGE SCOPE:

The purpose of this effort is to demolish Building 42, see Figure 1.0. Using heavy equipment to demolish the facility, remove and dispose of the debris, and provide temporary erosion protection with seeding and mulch. The area is scheduled for soil remediation in the near future; therefore permanent restoration is not warranted. Asbestos abatement and safe shutdown activities will be completed prior to demolition.

4. WORK PACKAGE PHASES:

1. **Establish Work Zone.**
2. **Demolish Structure.**
3. **Demolish Slab and Foundation.**
4. **Organize area for future soil remediation.**

Insert the proper sequence of Work Package phases for the job. A phase is a separately definable portion of the project.

5. WORK LOCATION:

Building #: 42

Other: Spoils Area

6. SPECIAL MATERIALS AND EQUIPMENT:

1. Tracked excavator with shear, grapple, hoe ram, concrete cracker/pulverizer, or bucket attachment.
2. Rubber tired and tracked front-end loaders.
3. Rock crusher.
4. Transport equipment for debris as required.

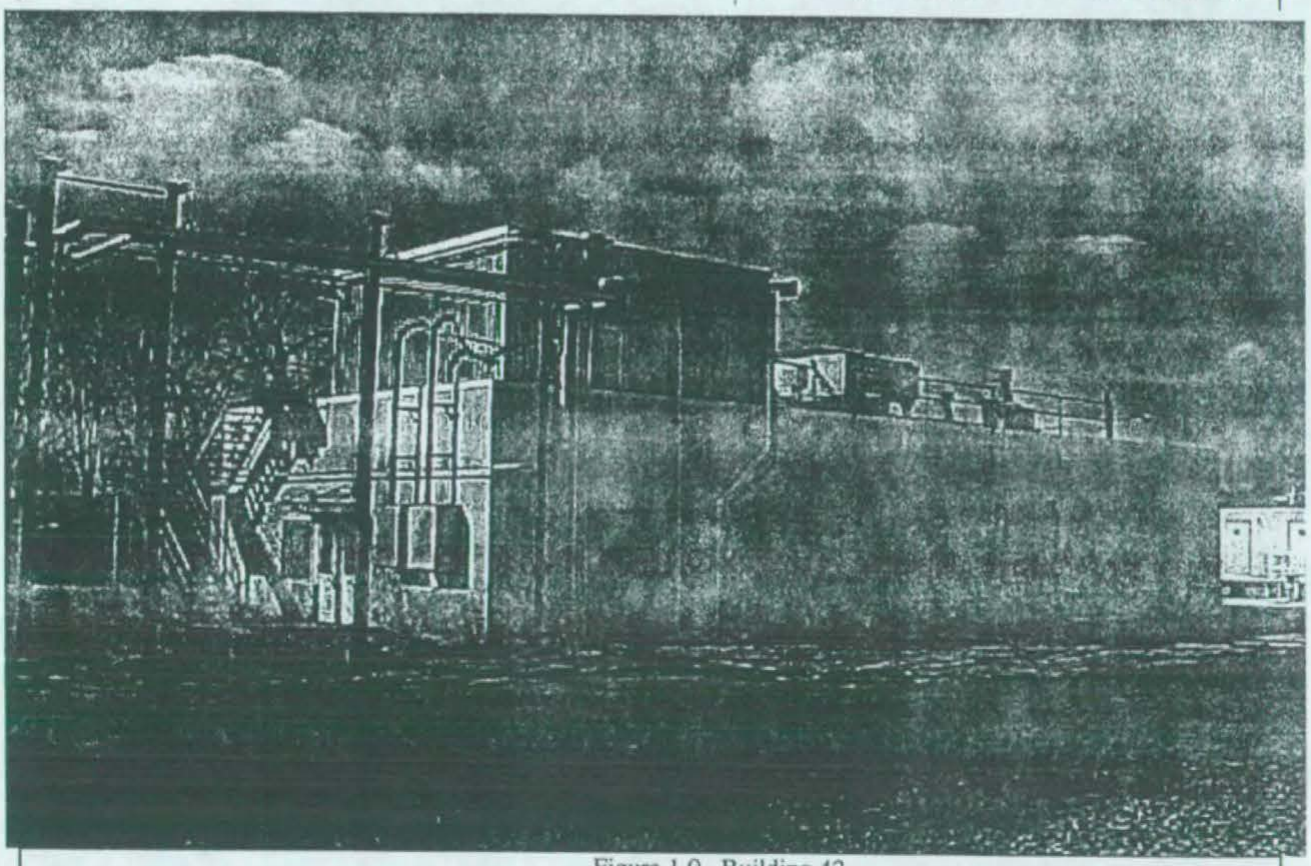


Figure 1.0, Building 42

7. DETAILED WORK STEPS: See the attached Job Specific Work Plan (JSWP)

Insert the activities to be performed during the job. Describe the specific methods of accomplishing these activities. Activities listed must be grouped under the Work Package phases listed in item 4.

8. *Note Comments, to identify activities/hazards that are common to multiple phases of the project. Identification of these items will facilitate the option of addressing the items once in the pre-job briefing, as opposed to redundantly listing them in the JSHAs for different phases.*

COMMENTS:

Enter any review comment or issues in this section and/or information generated as a result of completing detailed work steps.

9. REVIEW SIGNATURES:

Job Foreman: [signature] Date: 5/30/02 Phone: 3663

Superintendent/Constr. Mgr: [signature] Date: 05/17/02 Phone: X-3866

Industrial Safety & Hygiene: [signature] Date: 5/15/02 Phone: 470-0220 or 3-4096

Rad. Controls: [signature] Date: 5/16/02 Phone: 3178

ES&C: [signature] Date: 6/4/02 Phone: 4080

Waste Mgmt: [signature] Date: 5/17/02 Phone: x 3822

Bldg. Mgr: Doug S. Weidenbach Date: 6/5/02 Phone: 3241

Craft Review: [signature] Trade: A-D Date: 5/30/02 Phone: X 3663

Craft Review: [signature] Trade: H P Date: 5/31/02 Phone:

Craft Review: Trade: Date: / / Phone:

Craft Review: Trade: Date: / / Phone:

10. USQ SCREEN / DETERMINATION REQUIRED? ☐ YES ☒ NO

Brief Explaination: USQ screen did not require determination, remaining safety issues covered in JSHA

USQ Trained Person: Stanley R. Richards Date: 6/5/02 Phone: 937-865-3867

10. AUTHORIZATION SIGNATURE:

Construction manager: [signature] Date: 6/05/02 Phone: 4071

11. WORK PACKAGE CLOSURE:

Job Supervisor: Date: / / Phone:

Construction manager: Date: / / Phone:

RETURN PHA TO IS&H AT JOB COMPLETION.

PRELIMINARY HAZARD ANALYSIS (PHA)
FOR WORK PACKAGE ACTIVITIES

SECTION A, INDUSTRIAL SAFETY - TO BE COMPLETED BY THE INDUSTRIAL SAFETY AND HEALTH REPRESENTATIVE
Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.). Including any notations for future Hazard Analyses. Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards, that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section D if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Blockage of exits or means of egress	NO	N/A	[EGRESS]
Blockages/obstructions (Identify)	NO	N/A	
Burning, welding, hot-work (Fire Watch)	YES	Demolition	[BURN] Cutting of rebar will require a permit.
Chemical compatibility of corrosives/flammables	NO	N/A	
Chemical process safety	NO	N/A	
Compressed gas cylinders	NO	N/A	
Confined space entry	NO	N/A	[CONFINE]
Crane operations, overhead or mobile	NO	N/A	
Critical lifts (heavy or high value loads)	NO	N/A	[CLIFT]
Electrical hazards	NO	N/A	[LIVEL] Electrical Isolation of facility was accomplished during safe shutdown activities.
Elevated work/fall protection	NO	N/A	[ELEV]
Emergency eyewash/shower available	NO	N/A	[EWASH]
Emergency alarms or evacuation plans required	YES	All	[EMERG] Plant Public Address system will be used to announce any plant emergency over the plant radio channel; cell phones will be used also; no specific added hazards exist in the demolition of this building.
Explosive/flammable atmosphere	NO	N/A	
Explosives	NO	N/A	
Fire protection system/equipment outage	YES	Structural Demolition	[FIRE/EFIRE] Fire Alarm System isolation prior to start of structural demolition.
Fire Hazards Analysis Required of Demolition	YES	Structural Demolition	[FHA/ADJA] FHA dated 6/22/1995 & 4/9/1996 Liability assessment 6/6/96
Flammable liquids/gases	NO	N/A	[FLAM]
Forklifts, aerial lifts or material handling equipment	NO	N/A	
Grounding of electrical equipment	NO	N/A	
Hazards due to condition of facility or terrain (Identify)	NO	N/A	
Hoisting and rigging	NO	N/A	[HOIST]
Lighting/illumination/adequacy	NO	N/A	[MLITE]
Excavation and Soil disturbance	YES	Slab and Foundation Demolition	An excavation and soil disturbing permit required.

SECTION A, INDUSTRIAL SAFETY - TO BE COMPLETED BY THE SAFETY AND HEALTH REPRESENTATIVE

Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Job Safety and Health Analysis(JSHA). Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section D if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Lockout/tagout of hazardous sources	NO	N/A	[LOTO/ISO] Electrical/Mechanical Isolation of facility was accomplished during safe shutdown activities
• Electrical	NO	N/A	See Above
• Mechanical (steam, hydraulic, pneumatic)	NO	N/A	See Above
• Interlocks	NO	N/A	[ILOCK]
• Chemical	NO	N/A	
• Radiological	NO	N/A	
Machine guards	NO	N/A	
Modification to Fire Wall/Door	NO	N/A	[FIREWAL]
Obstruction of fire protection equipment (pull boxes, hydrants, fire department connections, control panels, fire extinguishers, etc.)	NO	N/A	
Off-shift work	NO	N/A	
Outages of the plant public announcement (PA) system or the emergency notification system	YES	Demolition	[OUTAGE] The plant radio system transmits public announcements, which will be use to monitor for emergencies
Overhead or underground utilities (Identify)	NO	N/A	[UTIL] Electrical/Mechanical Isolation of facility was accomplished during safe shut down activities
Penetrations into walls, floors, etc.	NO	N/A	[PENETR]
Plastic sheeting or wood framing/enclosures	NO	N/A	
Powder-actuated tools	NO	N/A	
Plant utilities (Identify)	NO	N/A	[WATER] Electrical/Mechanical Isolation of facility was accomplished during safe shut down activities
Repetitive work	NO	N/A	[ERGO]
Structural Modification	NO	N/A	[STRUCT]
Special Fire Protection Equipment Required	NO	N/A	[FIREQU]
Trenching/Shoring	NO	N/A	[DIG]
Temporary heating facilities	NO	N/A	
Temporary/portable buildings or structures	NO	N/A	[FACIL]
Temporary service hook-ups (Identify)	YES	Structural Demolition	Water service (for dust control)
Traffic control/flagman	NO	N/A	[TRAFIC]
Work in attics, ceilings, chases, or crawlspaces	NO	N/A	
Work impacting adjacent normally occupied areas	NO	N/A	[ADJAC/BMAPP/SIGNS/NOTIF]
Work Requiring Scaffolding, construction and inspection	NO	N/A	[SCAFF]
Other (Specify)	N/A	N/A	

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SECTION B, INDUSTRIAL HYGIENE - TO BE COMPLETED BY INDUSTRIAL HYGIENE REPRESENTATIVE

Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Job Safety and Health Analysis (JSHA). Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section D if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Abrasive blast (☐ MSDS available)*	NO	N/A	
Asbestos	NO	N/A	[ASBEST] Asbestos Abatement completed.
Beryllium	NO	N/A	
Blood-borne pathogens*	NO	N/A	
Cadmium	NO	N/A	
Carcinogens (☐ MSDS available)*	NO	N/A	[CARC]
Chemicals/solvents (☐ MSDS available)*	NO	N/A	[CHEM/MSDS]
Chlorofluorcarbon (CFC)	NO	N/A	[CFC]
Coal, tar or asphalt products	YES	Structural demolition	Roofing material contains tar and asphalt products, to be disposed of as construction debris.
Coating/painting (☐ MSDS available)*	NO	N/A	
Corrosives/acids/caustics (☐ MSDS available)*	NO	N/A	
Dusty operations	YES	demolition	[POWDER] Potential dust generation controlled via water misting.
Hazardous Waste Operations (HAZWOPER)*	NO	N/A	
High Pressure systems	NO	N/A	[HIPRES]
Insulation/man-made mineral fibers (☐ MSDS available)*	NO	N/A	
Lasers	NO	N/A	
Lead	NO	N/A	
Foam in Place Operations	NO	N/A	
Mercury	NO	N/A	
Noise in excess of 85 dBA	Yes	demolition	[NOISE] Hearing protection will be used.
Polychlorinated biphenyls (PCBs)	NO	N/A	
Removal of ceiling tiles*	NO	N/A	
Spraying/generation of mists*	NO	N/A	
Temperature extremes (heat or cold stress)	Yes	ALL	[CRYRO/COLD/HEAT] Provide heating or cooling for personnel.
Ventilation or Air Monitoring requirements	Yes	demolition	[VENTIL/IH] Air monitoring for potential silica during demolition activities will be performed.
Welding, brazing, or thermal cutting operations	Yes	demolition	[BURN] Cutting of rebar and etc. will require a permit.
Other (specify)	N/A	N/A	

***NOTE:** Requires a description of the materials involved which present a hazard. Identify the physical location of the MSDS.

SECTION C, RADIOLOGICAL PROTECTION - TO BE COMPLETED BY RADIOLOGICAL CONTROLS REPRESENTATIVE

Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. RWP, ALARA Plan, etc.). Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section D if additional space is needed.)

Item		Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Location:	Controlled Area	NO	N/A	
	Contamination Area	NO	N/A	[STP]
	High Contamination Area	NO	N/A	[STP]
	Radioactive Materials Storage Area	NO	N/A	
	Airborne Radioactivity Area (STP or OBT)	NO	N/A	
	Radiation Area	NO	N/A	
	High Radiation Area	NO	N/A	
	Very High Radiation Area	NO	N/A	
	Other (Specify)	NO	N/A	
Activities:	Criticality Safety Concerns	NO	N/A	
	Digging/Soil Removal	YES	Demolition/slab and foundation demolition	[DIG] Water mist to control potential dust. Air monitoring during demolition. Sample soil following slab removal.
	Surface destruction of radioactively contaminated materials or equipment?	NO	N/A	[SURFAC]
	Welding, burning, or grinding?	NO	N/A	[SURFAC] See section A industrial, building Non-rad.
	Hammering, chipping or scraping?	NO	N/A	[SURFAC]
	Abrasive blasting?	NO	N/A	[SURFAC]
	Dust-collecting equipment or systems?	NO	N/A	
	Decontamination and clean-up?	NO	N/A	
	Rad Waste Storage and Disposal Required	NO	N/A	[RWSTOR/WASTE/CHAR]
	Other (Specify)	N/A		
Sources:	X-Ray machine/generator	NO	N/A	[XRAY]
	Sealed radioactive sources	NO	N/A	
	Unsealed radioactive sources	NO	N/A	
Controls:	Radiological Work Permit	NO	N/A	[RWP/RWP=JS/RWP=N/R/RPGEN]
	ALARA Plan	NO	N/A	[ALARA]
	Air Flow Studies	NO	N/A	[AIRFLOW/CAM]
	Urinalysis program	NO	N/A	
	Preliminary or in-process characterization	NO	N/A	[SURVPS/SURVIP]
	Anti-contamination clothing	NO	N/A	
	Respiratory protection	NO	N/A	[RESP]
	Needs Analysis Evaluation	NO	N/A	
	Hazards Analysis	NO	N/A	
	Engineering Controls	YES	ALL	Dust control via misting.
	Administrative Controls	YES	N/A	Barricades of construction zone
	Supplemental dosimetry	NO	N/A	
	Shielding	NO	N/A	
	Personnel monitoring (frisking)	NO	N/A	

SECTION D - OTHER CONDITIONS, CONCERNS, OR SUPPLEMENTAL INFORMATION FROM SECTIONS A THROUGH C
Identify Assembly Points: Assembly Point north of Building 42 near roadway. Take shelter area is in building 19. -See Appendix E. ***Be aware of threatening weather and take shelter when life-threatening storms are imminent.***

Work Package Revision Form

Work Package Revision Form			
Work Package No.SMPP/TFV-29942-00	Revision No.		
Revision Description: (attach page revisions to form)			
	Name	Signature	Date
PREPARED BY:			
Revision Preparer:			
REVIEWED BY:			
Project Foreman:			
Project Superintendent/ Constr. Mgr.:			
Industrial Safety & Hygiene P o C:			
Radiological Point of Contact:			
Environmental Safeguards & Compliance P o C:			
Waste Management PoC:			
Building Manager:			
Other:			
Other:			
USQ Trained Person			
USQ SCREEN / DETERMINATION REQUIRED? ❑YES ❑NO Brief Explaination_____			
APPROVED BY:			
Construction manager:			

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Work Package Revision History Form

WORK PACKAGE REVISION HISTORY FORM			
REV. NO.	REASON	SIGNATURE	DATE

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APPENDICES

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The following appendices do not apply to this Work Package, and therefore are not included.

Appendix B
Appendix D
~~**Appendix F**~~ JKW 9/16/02

Job Specific Work Plan

1. WORK SCOPE

1.1. Introduction

This Job Specific Work Package (JSWP) follows the outline of PP-1059A, Integrated Work Control Program at the Mound Site, Miamisburg, Ohio. Included are a Preliminary Hazard Analysis (PHA) and a Job Safety & Hazard Analysis (JSHA). A Pre-Job Briefing Form (ML-9657) and the Construction manager's Authorization to Commence Work signature will be completed to document that the workers were briefed on the activities covered in this JSWP before work begins.

1.2. Work package scope

The purpose of this effort is to demolish Building 42, remove the debris, and to provide temporary seeding and mulching of the area to provide erosion protection. This will be accomplished by confirming that all utilities have been isolated during safe shutdown activities, establishing a safe work zone, and the demolition of the building using heavy-duty equipment, and removing of debris as directed by Waste Management. Please note that the main electrical feeder will have been rerouted prior to demolition and the heavy-duty equipment should maintain a safe distance from Building 27. All fire extinguishers need to be removed from the building prior to demolition.

1.3. Site Information

Building 42, the Explosives Component Fabrication Facility, was constructed in 1970 with 11 rooms, including a corridor, and a penthouse utility room. The corridor had two room numbers. Three of the rooms constituted the change rooms/rest rooms. [1]

The exterior walls of the building are constructed of 12" concrete block with horizontal reinforcing (#4 rebar) at 16" O.C., with expansion joints on the outside walls. The penthouse and the shed structure at the southwestern corner of the building were constructed of structural steel. Interior walls on the original room floor plans were constructed of 8" concrete block. [2] [3]

The foundation and slab consists of an 11" thick slab of reinforced concrete set on 3' deep footers. The footers underlie the exterior walls and underlie the southern wall of the interior corridor. Number 4 dowels extend 4" up, at 3' O.C., along the footers. All concrete, based on a note in the referenced drawing was 3000 p.s.i. [4]

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[1] Engineering Design Drawing 304200-02002, Explosives Component Fabrication Facility-Plans, Schedules, and Details, May 15, 1970.
[2] Engineering Design Drawing 304200-02002, Explosives Component Fabrication Facility-Plans, Schedules, and Details, May 15, 1970.
[3] Engineering Design Drawing 304200-02002, Explosives Component Fabrication Facility-Wall Sections and Details, May 15, 1970.
[4] Engineering Design Drawing 304200-02002, Explosives Component Fabrication Facility-Foundation Plan, May 15, 1970.

Remodel of Building 42 into a Pyrotechnic Facility--1974

This remodeling effort converted Building 42 into a different type of explosives processing facility, into a pyrotechnic facility. To achieve this conversion, existing equipment was removed, some of the Building 42 rooms were separated into smaller rooms, and areas of other rooms were segregated into definable areas by the addition of walls.

2. DRAWINGS AND REFERENCES

PP-1059A, Issue 7, "Integrated Work Control Program"
MD-50000, Issue 10, "Maintenance Work Order and Material Processing"

3. INITIAL CONDITIONS AND PREREQUISITES

3.1 Lessons Learned

A search of the Lessons Learned Database found the following relevant item:

- Driver has near miss with electrocution when overhead wires catch on truck.

See Appendix F for the full report. The result of the Lessons Learned is that heavy equipment must be kept clear of all energized wires. Overhead line will be rerouted or locked out and tagout out.

3.2 Industrial Safety and Health Requirements

3.2.1 A Job Specific Hazards Analysis (JSHA) is required. The construction zone, as defined in Appendix E, identifies the take shelter area, and the assembly area. Debris will be cleared from the immediate construction zone as required to promote safe equipment activity.

3.2.2 Above & underground electrical utilities will be identified and field located by scanning the area during safe shutdown activities, prior to beginning any field demolition activities. Lock-out-tag-out procedures will be followed and electrical energy detection will be performed prior to any electrical demolition activities.

3.2.3 An excavation/soil disturbance permit will be required prior to demolition activities.

3.2.4 Monitoring for silca dust will be performed periodically as determined by previous monitoring results and site Safety and Health. Site Safety and Health will be notified before the demolition of concrete begins.

3.2.5 Whole body vibration will be administratively controlled and by reviewing topic at pre-job meeting.

3.2.6 A Hot Work Permit will be required if a torch is used for cutting. Coordinate with site Safety and Health.

3.2.7 Monitoring of noise levels will be performed as determined by previous monitoring results and site Safety and Health. Earplugs (or other hearing protection) will be worn, as appropriate.

4. RADIATION PROTECTION REQUIREMENTS

An assessment of Building 42 was performed to review operational history and radiological survey information. The building was constructed and used to test components and assemble pyrotechnics and energetic materials. Neither the past nor current use's involve radioactive material. The 1996 Mound site assessment (*Environmental Appraisal of the Mound Plant*) states that Building 42 was not contaminated with radioactive materials. Annual non-Radiological Materials Management Area (RMMA) surveys have shown no elevated levels of radioactivity. During slab and foundation removal, radiological control personnel will perform radiological screening of soil and concrete surfaces that are in contact with the soil.

5. ENVIRONMENTAL PROTECTION REQUIREMENTS

5.1 CERCLA

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 Potential Release Sites (PRSs) identified under the various regulatory programs in effect at the site. Of these 440 PRSs, six are at or near Building 42. PRSs in the vicinity of Building 42 are identified in Table 1. None of the PRS are directly related to Building 42.

Table 1: PRSs in Proximity to Building 42

PRS	CERCLA or Bldg. Related	Binning Status	Comments
25	CERCLA	No Further Action (NFA)	**Building 27 Leach Pit (Area 1).**
33	Buildings	Unbinned	**Underground Sanitary Sewer Line G14 East.**
34	Buildings	Unbinned	**Underground Sanitary Sewer Line G14 West.**
41	CERCLA	Further Assessment (FA)	**Area 3, Thorium Drum Storage and Redrumming Area. The southwest corner of Building 42 is located within PRS 41.**
67	CERCLA	FA	**Plant Drainage Ditch.**
357	CERCLA	NFA	**Elevated Soil Gas Location.**

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5.2 National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

Per Environmental Practice 2.2, if buildings to be demolished have a surface area less than 72 million square feet, direct readings below MDA, and wipe results below applicable action levels, additional dose calculations are not necessary.

5.3 Notification

A Notification of Demolition and Renovation form has been filed with the Regional Air Pollution Control Agency (RAPCA) at least 10 business days before planned building demolition.

5.4 Restriction of emission of fugitive dust (OAC 3745-17-08)

Reasonably available control measures must be employed to prevent fugitive dust from becoming airborne. Visual particulate emissions from any fugitive dust source shall not exceed 20% opacity as a three-minute average. Appropriate activities would include:

5.4.1 Water misting, or other suitable dust suppression, will be used to minimize fugitive dust resulting from demolition activities.

5.4.2 Periodic application of water, or other suitable dust suppression, to adjacent roadways and parking lots will be used to prevent dust from becoming airborne.

5.4.3 Trucks hauling debris to the onsite spoils area should be covered while in transit.

5.5 Clean Water Act & Storm Water Pollution Prevention

5.5.1 All inlets to the sanitary and storm systems will be plugged during safe shutdown to prevent accidental discharges to the wastewater treatment plant or the environment.

5.5.2 The site's National Pollutant Discharge Elimination System (NPDES) Permit No. 1IO00005*HD requires the use of control measures to ensure the quality of storm water leaving the site. These control measures and practices are outlined in the site's Storm Water Pollution Prevention Plan OPA980099. Appropriate activities would include: Redirect flow patterns around the project site to prevent stormwater run-on, provide inlet protection to the storm sewer system by covering catch basins immediately adjacent to the project site, and plugging roof drains at ground level until which time the underground pipes can be appropriately abandoned. Exercise good housekeeping techniques by segregating materials in a timely manner, including the prompt disposal of wastes, and sweeping debris from the streets to prevent stormwater pollution. Water that has collected in an open excavation or in sumps, must be monitored prior to discharging to the sanitary or storm sewer systems. Contact Environmental Monitoring at extension 4188 for monitoring and review of these non-routine discharges.

5.6 National Historic Preservation Act (NHPA)

Building 42 is not listed as a historic structure with the Ohio Historic Preservation Office (OHPO). No mitigative documentation package is required. However, if any items or artifacts are discovered as this project progresses, the Cultural Resource Representative will be notified at extension 3691. Work will be temporarily suspended until which time the items or artifacts have been recovered.

5.7 Safe Drinking Water Act

The potable water supply to Building 42 has been turned off and capped to protect the integrity of the water supply to that portion of the plant site during safe shutdown activities.

5.8 Emergency Spill Response

Building 42 has been disconnected from all utility services and the lines drained. There should be no regulated component encountered. In the event of a major spill of any regulated substances, or the rupture of a non-isolated utility line (fire, domestic water, ethylene glycol), call 911 if using an onsite phone or 937-865-4040 if using a cell or other outside phone to report it. Also see Emergency Preparedness section. All spills must be contained onsite and should be prevented from entering the storm drains if possible. If spills enter the storm drains, all effluent must be retained onsite at the overflow pond.

6. CHEMICAL AND WASTE MANAGEMENT REQUIREMENTS

All waste will be managed in accordance with the Waste Management Plan for the Mound Exit Project, MD-10499. The Waste Coordinator will ensure that this is accomplished and summarized in the Job Specific Waste Management Plan, which is included below:

It may not be practical or cost effective to dispose of the concrete rubble from Bldg. 42 on site utilizing the concrete crusher. Radiological survey data dated May 2002 of Bldg. 42 indicates all readings meet surface release criteria. If unusable and no MARSSIM is in place form ML-9901 (3/02) must be completed for each roll-off of concrete/debris pile before the Bldg. 42 waste can be taken to an Off-Site construction debris landfill for disposal. PCB containing light ballast's were removed and packaged for disposal during Safe Shutdown activities. Tritium Exit Signs were removed and packaged for disposal at the end of Safe Shutdown activities. Non-PCB containing light ballasts will be left in place and demolished with the building. All Fluorescent Tubes have been removed. All chemical and explosives were removed in August 1995. An asbestos abatement decontamination program was performed in May 2001; no further action is required.

7. EMERGENCY PREPAREDNESS

7.1 Site Notification Procedures

7.1.1 Use **911** for all emergency services onsite. This is the first response for any emergency, spill, or release. If using a cell phone, dial **865-4040**. This number will ring into the plant 911 system.

7.1.2 Any injury, no matter how minor, shall be reported immediately to the Medical Department for evaluation and treatment. The injured employee shall report any injury to the supervisor in charge or designee.

7.1.3 Employees will be notified of emergency or abnormal conditions by the plant paging system or project two-way radios. Additionally, unique sheltering and evacuation signals are available should site-wide protective actions be necessary.

7.2 Evacuation Route/Assembly Areas

The assembly area is north of Building 42 at the edge of the roadway. See map per Appendix E.

7.3 Take Shelter Area

Take shelter area is in Building 19. -See Appendix E. *Be aware of threatening weather and take shelter when life-threatening storms are imminent.*

8. PRE-DEMOLITION SEQUENCE OF WORK

8.1 Site Characterization

8.1.1 Physical Characterization

A structural engineering survey was performed and documented for Building 42 to meet the requirements of OSHA 29 CFR 1926.850(a). A walkdown of the structure was used to identify potential hazards as listed in 29 CFR 1926.850(e) through (i). It has been determined the building does not meet the criteria that cause the structure to be historically significant.

8.1.2 Radiological Characterization

An assessment of Building 42 was performed to review operational history and radiological survey information. The building was constructed and used to test components and assemble pyrotechnics and energetic materials. Neither the past nor current uses involve radioactive material. The 1996 Mound site assessment (*Environmental Appraisal of the Mound Plant*) states that Building 42 was not contaminated with radioactive materials. Annual non-Radiological Materials Management Area (RMMA) surveys have shown no elevated levels of radioactivity. Radiological survey data of Building 42 indicates all readings meet surface release criteria.

8.1.3. Chemical and Metals Characterization

Various energetic materials were used in Building 42's operations. These materials and the admixtures were fabricated into test component. Various chemicals were used in device assembly and for materials compatibility testing. All chemicals and explosives were removed from Building 42 by Waste Management in July and August 1995.

8.1.4 Asbestos Characterization

An asbestos survey was completed. Asbestos had been prevalent in Building 42. Asbestos-containing materials (ACM) of non-friable nature were used in floor tiles and mastic. Friable ACM included pipe joint insulation, condensation tape, pipe wrap, and thermal insulation. An asbestos abatement decontamination program was performed; no further action is required.

8.2 Site Preparation

8.2.1 Site Access Control

The demolition area will be identified utilizing the existing fence around the building, or at the discretion of the project construction manager/foreman, marked off with barricade tape/fencing.

8.2.2 Clearing and Grubbing

The area around the building will be mowed and insecticide will be sprayed if appropriate. Coordinate with site Safety and Health and Environmental Compliance.

HAZARD	MITIGATION
Insect bites	Mow area around building. Wear long pants and long sleeve shirt. Tape arm and leg openings, if desired .
Exposure to insecticide	Follow requirements of MD-10286 D2. Use licensed personnel. Follow label directions and MSDS.

8.2.3. Temporary Utilities

The only temporary utility that may be required is water. Coordinate with site Safety and Health. Water will be used to control dust emissions.

8.2.4 Temporary Facilities

This project may use the existing Building 44 and Building 38 shower/restroom area or utilize SMPP/TV F project new trailer complex to be located in the existing Mound "C" parking lot. Also, a portable toilet will be located at the job site.

8.2.5 Temporary Communications

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Temporary communications are required (cell phone, radios) due to the difficulty of hearing plant announcements and emergency notifications. At the job site, plant announcements and emergency notifications can be heard on the Plant radio channel.

8.2.6 Staging Areas

The project site is of sufficient size to also be used as a staging area.

8.3 Preliminary Activities

8.3.1 Domestic water, fire water, electrical, fire alarm system and communications lines have been disconnected under separate safe shutdown MSR. 29940. An excavation/soil disturbance permit for slab and footing removal will be required prior to excavation activities.

8.3.2 Verify all mercury-containing switches have been removed. If found, dispose through Waste Management.

8.3.3 Confirm all Freon has been previously removed and recycled from HVAC units inside and outside of the building.

8.3.4 Fluorescent tubes, ballasts, and explosion proof lights have been removed during safe shutdown activities; asbestos abatement has been completed

HAZARD	MITIGATION
Fall hazard	Follow requirements of MD-10286 M-14.

9. BUILDING DEMOLITION SEQUENCE OF WORK

9.1. Establish Work Zone

Establish work zone boundary using the existing fence and/or with barricade tape as directed by the Project Foreman. Proper signage will be placed at all access points to the site. This zone is not to be entered by anyone not directly involved with the demolition unless they have contacted the Construction Manager/Foreman first

Do not begin any demolition activities until the following items are completed.

All new workers assigned to this project must have received a pre-job briefing prior to performing work and a walkdown of the project area. The following must be completed prior to starting work.

Review of the *Preliminary Hazard Analysis* for work package activities must be completed.

9.1.1. The *Pre-Job Briefing Record* must be completed and signed.

9.1.2. The *Job Specific Hazards Analysis (JSHA) must be reviewed.*

NOTE: All workers have Stop Work Authority. Situations where stop work authority is to be exercised are:

- **To stop unsafe work.**
- **To stop unauthorized work, for example, work outside the scope of this work package.**

9.1.3 Verify Safe Shutdown activities have isolated all the connections to Building 42, including the following systems: electric/communication/fire alarm systems, steam and glycol, sewage and potable water systems.

9.1.4. Verify that all pre-demolition notifications have been made and permits are in place.

9.1.5. Install sediment/storm water control fence around designated construction area as necessary.

9.1.6. Prepare water distribution system for the control of dust.

9.2. Structural Demolition

9.2.1 Upper Structure Demolition

Demolish the Upper Section of the structure's block walls and steel using heavy equipment. Use heavy equipment to reach the higher penthouse mechanical section and weaken structure to allow upper section to collapse into lower level for demolition. Use the existing slab for load out surface for loading debris and placing into appropriate hauling containers or trucks. **Note: The progression of the building demolition will ultimately be determined in the field.**

HAZARD	MITIGATION
Contact overhead power lines with heavy-duty equipment	If heavy-duty equipment will be operating within 10' of overhead powers, perform LOTO.
Struck by flying debris Struck by moving equipment	Establish construction boundary. Temporary closure of the roadway to be coordinated with site wide safety, emergency and other necessary entities. Wear hard hat, safety glasses, safety shoes, and reflective vest inside construction area. Maintain the following distances from operating equipment: Shear – 75 feet Hoe Ram – 50 feet Other heavy-duty equipment – 35 feet Bobcat – 15 feet
Noise Hazard	Wear hearing protection while running heavy-duty equipment. Follow the requirements of MD-10286 D9.
Burns from torch cutting	Obtain and follow Hot Work permit per MD-10286 O2
Heat/Cold Stress	Follow the requirements of MD-10286 D13/D16

Exact sequence of demolition will be left up to the skill of the craft.

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9.2.2 Slab and Foundation Demolition

Using heavy-duty equipment, break apart the concrete slab, foundation, and footers to 3' below grade; torch cut the rebar as required (Hot Work Permit is required if used) to support demolition and downsizing. During the concrete demolition, use heavy-duty equipment to assist radiological control personnel to perform radiological screening of all concrete surfaces. Based on radiological screening results, transport concrete debris to Mound's spoils area, offsite disposal, or rail spur as directed by Waste Management.

HAZARD	MITIGATION
Burns/fire	Burn permit, fire protection, and PPE.
Threatening weather conditions	Imminent lighting or high wind, operators shall shut heavy-duty equipment down and move to take shelter area.
Strike underground utilities	Obtain Excavation permit and follow its requirements per MD-10286 O5

9.2.3 Organize area for future soil remediation

The last step of this workpackage will be to temporarily restore the area by grading and seeding. Remove any unnecessary remaining sediment/storm water control fences. Scan equipment for radiological contamination and decontaminate prior to leaving area. Remove dust control water distribution system, temporary power fencing and any traffic control. Restoration will be temporary in scope since the area is scheduled to be disturbed in the near future by the PRS 41 Removal Action.

Appendix A
JSHA/HASP

Project/Activity: Building 42 Demolition
Name: Lee Koehmstedt

JSHA CRITERIA CHECKLIST	YES	NO	N/A
1. Work performed with a 6 ft. or greater fall hazard, excluding portable ladders. See Item 14 for further requirements.		X	
2. Roof work requiring the use of fall protection (within 6 ft of an unprotected edge) or special fall protection procedures.		X	
3. Potential hazardous chemical exposure above action levels or permissible exposure limits (PELs), or ACGIH Threshold Limit Values (TLVs).		X	
4. Work activity in an immediately dangerous to life or health (IDLH) breathing hazard environment.		X	
5. Fire or explosion hazards. Are fire hazards beyond a Hot Work Permit? (Reference O2, MD-10286)		X	
6. Work within close proximity of live electrical than 50 volts, conductors, and/or work that requires multiple locks, multiple hazard sources, or complicated lockout/tagout circumstances. (Reference MD-10444, *Lockout/Tagout Procedure Manual*, for multiple energy lockout/tagout.)		X	
7. Any maintenance or repair of equipment under pressure where the pressure cannot be shut off and de-energized.		X	
8. Work with high or extreme exposure to ionizing or nonionizing radiation (reference MD-80036, Op 10002), noise, or heat or cold stress (reference D9, D13 & D16, MD-10286).	X		
9. Determined by an appropriate core team, building manager, member of general or executive management, or the IS&H manager to require a JSHA.	X		
10. Any onsite construction or service project directed to have JSHAs based on this procedure and/or instruction from project personnel or IS&H staff.	X		
11. Near-miss event with the potential for loss of life or limb or disabling injury/illness if repeated.		X	
12. Excessive trauma/motion/vibration work situations or manual lifting involving heavy, large, and/or awkward-to-handle objects (reference MD-10407, *Ergonomics Program.*		X	
13. Unguarded, unmarked close clearance, pinch point, exposed moving machinery parts.		X	
14. Known potential falling object hazards (e.g., employees working above other employees, potential for dropping tools, falling equipment or material) or working in areas with the potential for flying objects (flying chips, sandblasting, etc.), exposure to sharp or protruding objects (e.g., working inside plenums, air mover ducts, etc.).	X		

MANDATORY JSHA REQUIRED TO ADDRESS ANY/ALL (YES) RESPONSES

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JOB SAFETY & HEALTH ANALYSIS

JSHA MASTER DOCUMENT CONTROL NO:
SMPP/TFV – 29942-0

SIGNATURES

ORIGINATOR: Lee Kochmsiedt
REVIEW/REV: Jared Willis
REVIEW/REV: Bill Wahler
REVIEW/REV: Gary Weidenbach
APPROVED: C.D. Thompson

DATE: 05/15/02	_X_ NEW ___ REV	BUILDING: 42	JOB: Demolish Building 42
DEPARTMENT/COMPANY: SMPP/TFV			SECTION: N/A
OCCUPATIONS: Heavy Duty, Demo Tech, Construction Craft, Pipefitter/Welder, Electrical Control, Fab Mechanic, RCT, III			

REQUIRED PERSONAL PROTECTIVE EQUIPMENT:	MSDS(s)/CHEMICALS ASSOCIATED WITH THE JOB:
Hard Hat, Safety Glasses with side shields, safety shoes, safety vest	Insecticide

BASIC JOB STEPS	POTENTIAL ACCIDENT/ILLNESSES OR KNOWN HAZARDS	SAFE JOB PROCEDURES
Break the job down into basic steps that tell what is done first, what is done next, and so on Record the job steps in their normal order of occurrence. Describe what is done, not the details of how it is done Usually, three or four words are sufficient to describe each job step For example, the job of "replacing a light bulb" may break down into basic steps as follows 1. Bring and set up ladder 2 Ascend ladder 3 Remove light globe & bulb 4 Replace light bulb 5. Replace light globe 6. Descend ladder 7. Remove and store ladder	Ask yourself for each job what accidents/illnesses could occur to the employee doing the job. Record potential accidents/illnesses by combining one of the abbreviations below with the agent of contact For example, "struck by a crane hook" is recorded "SB-crane hook." Number each potential accident SB - Struck by CB - Contacted by SA - Struck against CW - Contact with CI - Caught in CO - Caught on IB - Caught between F - Fall SO - Strain-overexertion* E - Exposure (occ illness) *Show ergonomic stresses as SO (repetitive trauma, single event strain, or awkward position)	For each potential accident/illness, ask yourself exactly what the employee should do or not do to avoid the accident/illness Describe specific precautions in detail Give each precaution the same number given in the potential accident (center column) to which it applies. Avoid generalities such as "Be alert," "Be careful," and "Take caution." Use simple do or don't statements; e.g., "Lock out main power switch," "Stand clear of lift before signaling," or "Check wrench grip before exerting full force." If necessary, explain how, as well as what, to do. Amount of detail is a matter of judgment. Describe ergonomic solutions (job redesign, new tools, worker lift assistance, etc.)
General Safety Note	A wide variety of incidents occur on a regular basis that potentially could result in injury or illness	1) Be cognizant of your own safe work practices as well as those of your co-workers 2) Review any related safety procedures of which you are unsure 3) Utilize STOP WORK Authority as necessary
Pre-job meeting with involved personnel to discuss the work plan and safety requirements.	NA	This project engages in Enhanced Work Planning(EWP), a ISM process that evaluates and improves the approach by which work is identified, planned, approved, controlled, and executed.
Operation of heavy equipment near electric overhead lines	Electrocution	LOTO all electrical overhead lines.

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JOB SAFETY AND HEALTH ANALYSIS FORM
(CONTINUATION SHEET)

BASIC JOB STEPS	POTENTIAL ACCIDENT/ILLNESSES OR KNOWN HAZARDS	SAFE JOB PROCEDURES
Demolish building and slab using excavator mounted shear, hoe ram, grapple, loader, and bobcat	Struck by flying debris Struck by moving equipment Noise Hazard Fugitive dust inhalation	Establish construction boundary. Wear hard hat, safety glasses, safety shoes, and reflective vest inside construction area. Make eye contact with operator when working around equipment. Use hand signals to communicate intent. Maintain the following distances from operating equipment: Shear – 75 feet Hoe Ram – 50 feet Other heavy duty equipment – 35 feet Bobcat – 15 feet Make sure equipment is in safe working order. Use spotter if vision is obstructed. Install traffic control. Wear hearing protection while running heavy-duty equipment. Follow the requirements of MD-10286 D9. Use a water mist to suppress dust.
Torch cut rebar or to weaken structural members	Burns, fire Potential lead paint	Obtain and follow Hot Work permit per MD-10286 O2. Wear proper PPE; have fire extinguishers in the construction zone. Test for lead paint; do not torch cut lead paint.
Working in excessive heat/cold	Heat Stress/Cold Stress	Follow the requirements of MD-10286 D13/D16.
Working outside.	Adverse weather conditions	Be aware of adverse weather conditions, and assembly and take shelter areas.
Be aware of threatening weather	Possible injury from lighting strike or high wind from tornado.	Take shelter when life-threatening storms are imminent.
Slab removal	Strike underground utilities Silica exposure	Obtain Excavation permit and follow its requirements per MD-10286 O5. Monitor for silica; keep area wet for fugitive dust suppression.

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SIGN-OFF SHEET

I have read and understand the attached Job Specific Work Plan and JSHA:

SIGNATURE	**Date**	**Department**

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Appendix C
PRE-JOB BRIEFING

JOB SPECIFIC WORK PLAN
PRE-JOB UPDATE

MSR/PROCEDURE (if applicable):	JOB SUPERVISOR

A.	Time, Date and Location of PJB:
B.	Applicable Procedure Number:
C.	Job Description:
D.	Personnel Attending:

HP#	SIGNATURE	HP#	SIGNATURE

JOB SUPERVISOR – This is a reminder checklist for the update. The supervisor need only discuss and note changes from the previous day's briefing or update. (Use NC for No Change).

1.	Any changes/revisions to safety envelope for work: a. New/added assignments and responsibilities of any individual b. Changes in facility conditions, tagouts, valve lineups c. New or changed precautions/hazards d. Valid RWP or other required work permits still in effect
2.	Adequate supply of PPE
3.	New training, any training coming up on expiration
4.	New changes to relevant Category "A" or Category "B" procedures.
5.	Equipment and tools calibrations in effect
6.	Relevant lessons learned, critique reports
7.	RWP revisions: a. Changes to radiological conditions of the workplace, particularly with respect to postings. b. Change in scope, especially if it is a reduction in scope or Stop Work Levels.
8.	Changes to radiological and/or health monitoring.
9.	Open the floor to questions.

The above minimum requirements have been met; this PJB has been conducted in sufficient detail to maximize continued safe conduct of the job, and all personnel have been through a previous Pre-Job Brief.

_____ _____

Job Supervisor/Foreman Date

NOTE: Completed pre-job update sheet must be retained with the work package or maintained in your record file.

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JOB SPECIFIC WORK PLAN

Daily Toolbox Safety Meeting

Project:	**Date:**
Safety Topic of Meeting:	
Work Description of Meeting:	

Review the following to determine if conditions have changed since the last Pre-Job Meeting
If this is the 1st meeting with a subcontractor, has Safe Work Authorization been done?
Check off each item that applies or mark N/A if it doesn't apply.

Hot Work Permit (torch cutting, spark producing grinding, open flame heaters, welding)		Signage and Barricades (construction area, hazard notification, rad postings, etc).	
Penetration Permit (penetrating walls, ceilings, or floors in a building)		Air Monitoring (as required by Environmental Compliance and/or Industrial Hygiene)	
Excavation Permit (digging in soil)		Dust Suppression (misting, etc.)	
Trench Plan (shoring, soil layback, etc. if over 4 feet below grade)		Water Runoff Prevention (silt fence, straw bales, collection pond, etc.)	
Confined Space Entry Permit (manhole, tank, or other confined space entry)		Radiation Work Permit (as required by Rad Controls)	
Fall Protection (person's feet over 6 feet above ground)		TLDs (as required by RWP and rad postings)	
Lockout/Tagout (all energy sources to equipment being worked on)		Waste Containers (rolloffs, sealands, dumpsters, LSA boxes, drums, etc.)	
PPE (respirators, Tyveks, safety shoes, safety glasses, hard hats, gloves, reflective vests, etc.)		Utility review especially for asbestos abatement contractor (label live utilities e.g. FAS, phone, electric)	
Personnel Training up-to-date for assigned work (Radworker II, Asbestos, Lead, etc.)		Hoisting and Rigging Review	

JOB SPECIFIC WORK PLAN
PRE-JOB UPDATE

Continuation Sheet for _____/_____/_____

HP#	SIGNATURE	HP#	SIGNATURE

JOB SPECIFIC WORK PLAN

PRE-JOB UPDATE

MSR/PROCEDURE (if applicable):	JOB SUPERVISOR

A.	Time, Date and Location of PJB:
B.	Applicable Procedure Number:
C.	Job Description:
D.	Personnel Attending:

HP#	SIGNATURE	HP#	SIGNATURE

JOB SUPERVISOR – This is a reminder checklist for the update. The supervisor need only discuss and note changes from the previous day's briefing or update. (Use NC for No Change).

2. Any changes/revisions to safety envelop for work: e. New/added assignments and responsibilities of any individual f. Changes in facility conditions, tagouts, valve lineups g. New or changed precautions/hazards h. Valid RWP or other required work permits still in effect
2. Adequate supply of PPE
3. New training, any training coming up on expiration
4. New changes to relevant Category "A" or Category "B" procedures.
5. Equipment and tools calibrations in effect
6. Relevant lessons learned, critique reports
8. RWP revisions: c. Changes to radiological conditions of the workplace, particularly with respect to postings. d. Change in scope, especially if it is a reduction in scope or Stop Work Levels.
8. Changes to radiological and/or health monitoring.
9. Open the floor to questions.

The above minimum requirements have been met; this PJB has been conducted in sufficient detail to maximize continued safe conduct of the job, and all personnel have been through a previous Pre-Job Brief.

_____

Job Supervisor/Foreman Date

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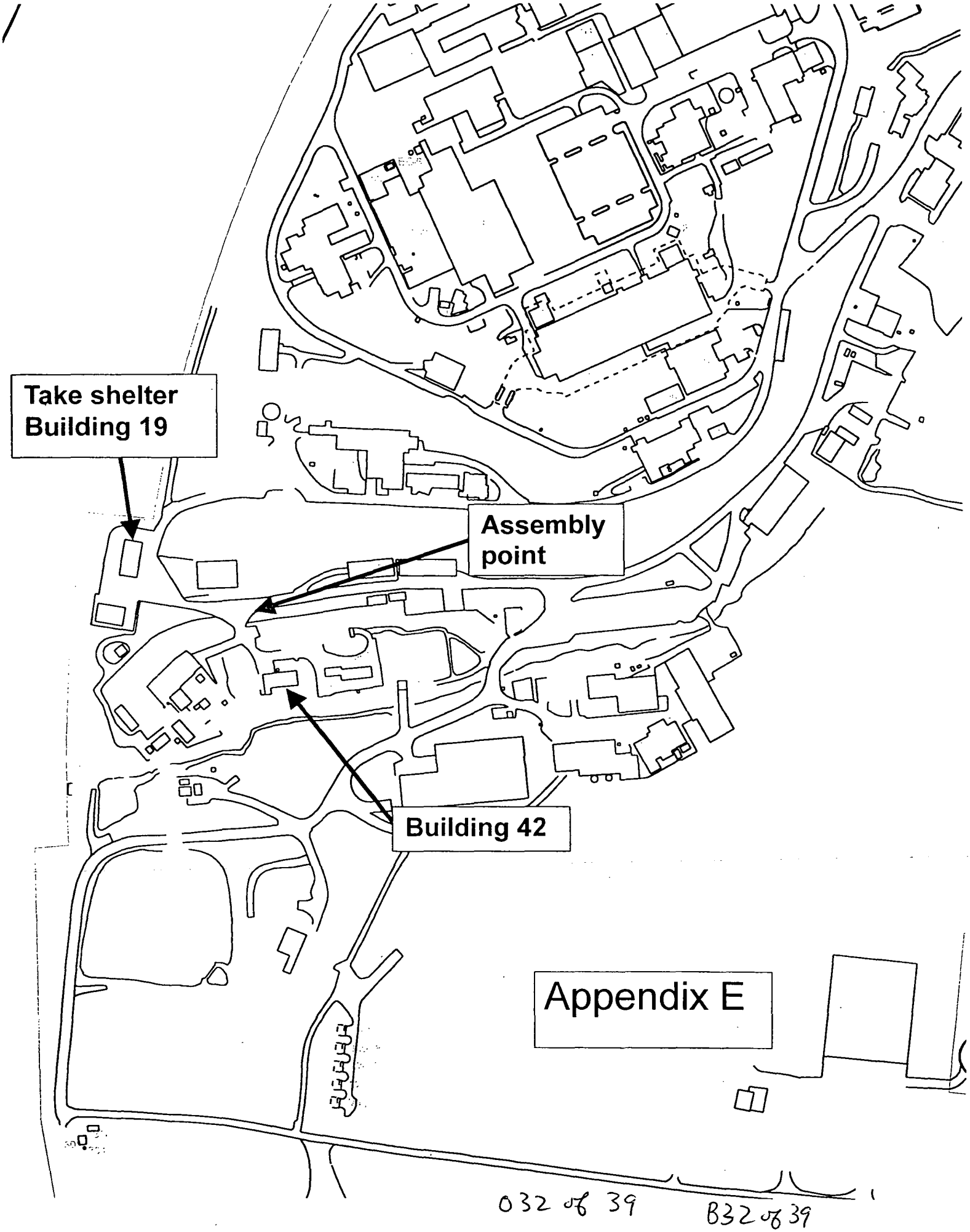
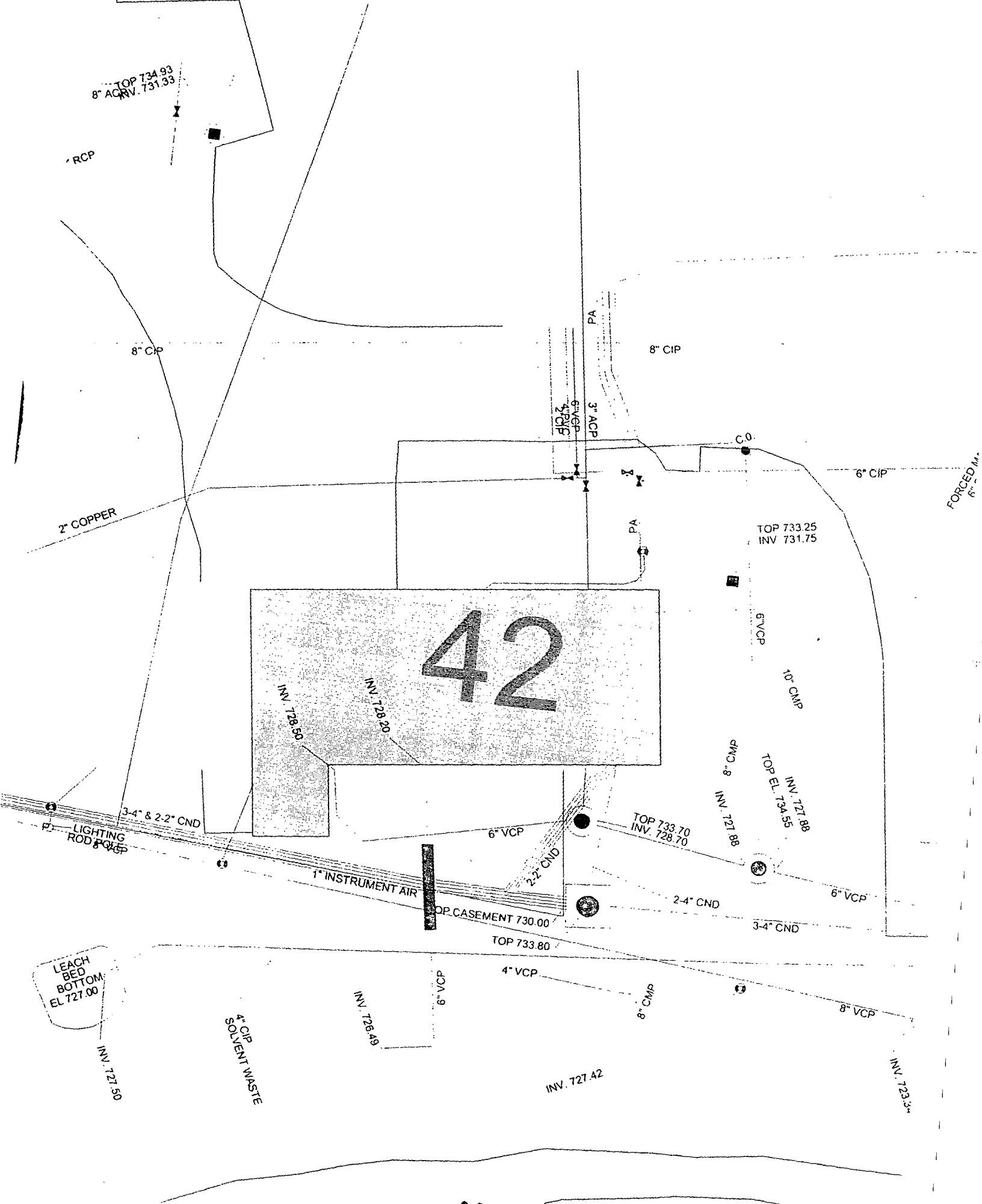
Appendix E
DRAWINGS/SKETCHES



Appendix E


TOP 734.93
8" ACP INV. 731.33
RCP
8" CIP
8" CIP
PA
6" VCP
4" PVC
2" CIP
3" ACP
C.O.
6" CIP
FORCED M
2" COPPER
PA
TOP 733.25
INV 731.75
42
INV. 728.50
INV. 728.20
6" VCP
10" CMP
8" CMP
INV. 727.88
TOP EL. 734.55
INV. 727.88
3-4" & 2-2" CND
LIGHTING ROD POLE
8" VCP
6" VCP
TOP 733.70
INV. 728.70
1" INSTRUMENT AIR
2-2" CND
2-4" CND
6" VCP
TOP CASEMENT 730.00
3-4" CND
TOP 733.80
LEACH BED BOTTOM EL 727.00
4" VCP
6" VCP
8" CMP
8" VCP
4" CIP SOLVENT WASTE
INV. 726.49
INV. 727.50
INV. 727.42
INV. 723.3

Appendix F
REFERENCES/ LESSONS LEARNED

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DRIVER HAS NEAR MISS WITH ELECTROCUTION WHEN OVERHEAD WIRES CATCH ON TRUCK

Background:

On 9-23-99 an equipment hauling subcontractor arrived at the Rocky Flats Environmental Technology Site (RFETS) to relocate four pieces of subcontractor heavy equipment. The two pieces of equipment involved in this incident were tracked excavators, both equipped with building demolition equipment, one with a metal shear attachment and the other with a concrete crushing attachment. Both pieces of equipment had been previously delivered to RFETS by the same transporter without incident. On this day, the driver was escorted to the 960 Staging Area of the Site by another employee to retrieve the excavators. The driver deviated from his previously approved delivery and exit route and encountered interference from an overhead telecommunications line at the intersection of the south inner Patrol Road and Sixth Street west of Building 771. At this time, approximately 12:00 noon, the truck driver exited the cab of his truck, climbed the boom of the excavator and with his bare hands flipped the telecommunications line over the high point of the boom that was approximately 18' above the ground. The driver exposed himself to a fall hazard and a shock hazard from the energized electrical lines located approximately 2' above the telecommunications line. The escort told the driver that this was not acceptable practice, the escort failed however to notify supervision or to stop the activity. They then proceeded to Portal 2 and exited the Protected Area. At approximately 2:20 PM this process was repeated with the second excavator at the same location. RFETS personnel had observed this breach in safety practices and reported the incidents to their supervision.

Analysis:

Due to the construction and demolition activities currently underway in support of the Rocky Flats Environmental Technology Site (RFETS) closure mission, heavy equipment of this type is in constant movement around the Site. Unapproved field changes can create unanticipated/uncontrolled hazards. In this case, unauthorized deviation from previously approved routes of travel caused this incident during an otherwise routine activity. Work should be planned and the plan should be followed (Plan The Work/Work The Plan). Deviations from the plan (field changes) need to be reviewed and approved prior to implementation.

Lessons Learned:

The potential for this incident to occur exists on other sites, especially on construction or demolition projects where heavy equipment such as cranes, drill rigs, excavators or other tall pieces of equipment are being moved around the project. The installation of temporary overhead wiring or utilities can also increase the potential for such an incident to occur. Depending on voltage, OSHA regulation 29CFR 1926, Subpart V-Power Transmission and Distribution, specifies minimum safe distances from energized lines for equipment and personnel. In spite of good work planning, unexpected hazards can arise. In these cases, work should be stopped and re-evaluated so that appropriate hazard controls can be implemented.

Recommendations:

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Briefings should be conducted to ensure that subcontractor personnel are aware of safety standards. Personnel should be informed that work should be stopped when unexpected hazards are encountered.

Contact:

Jim McLaughlin, Lessons Learned, 303-966-3471 or james.mclaughlin @rfets.gov

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Back to Lessons Learned

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Appendix G
MISCELLANEOUS
(USQ, RWP, Permits, etc.)

No USQs or RWPs are required at this time. An excavation permit will be required for the slab removal and a burn permit will be required for torch cutting rebar.

INTER OFFICE MEMO B W XT.

Date: May 14, 2002 cc. L. Koehmstedt

From: W. L. Johanan – OSW-430

Subject: Structural Survey of Building 42, RE: 29 CFR 1926.850 (a)

To: Bud Thompson – Project Manager

Please be advised that we have performed a structural review and walkdown and found them to be satisfactory based on the demolition process and the work plan.

Please call me if you have any further questions.

W. L. Johanan P.E.
Site Structural Engineer

STATE OF OHIO
WILLIAM L. JOHANAN
E-44883
REGISTERED
PROFESSIONAL ENGINEER

Rad Summary

Appendix C

Radiological Summary

RSDSs Prior to Demolition

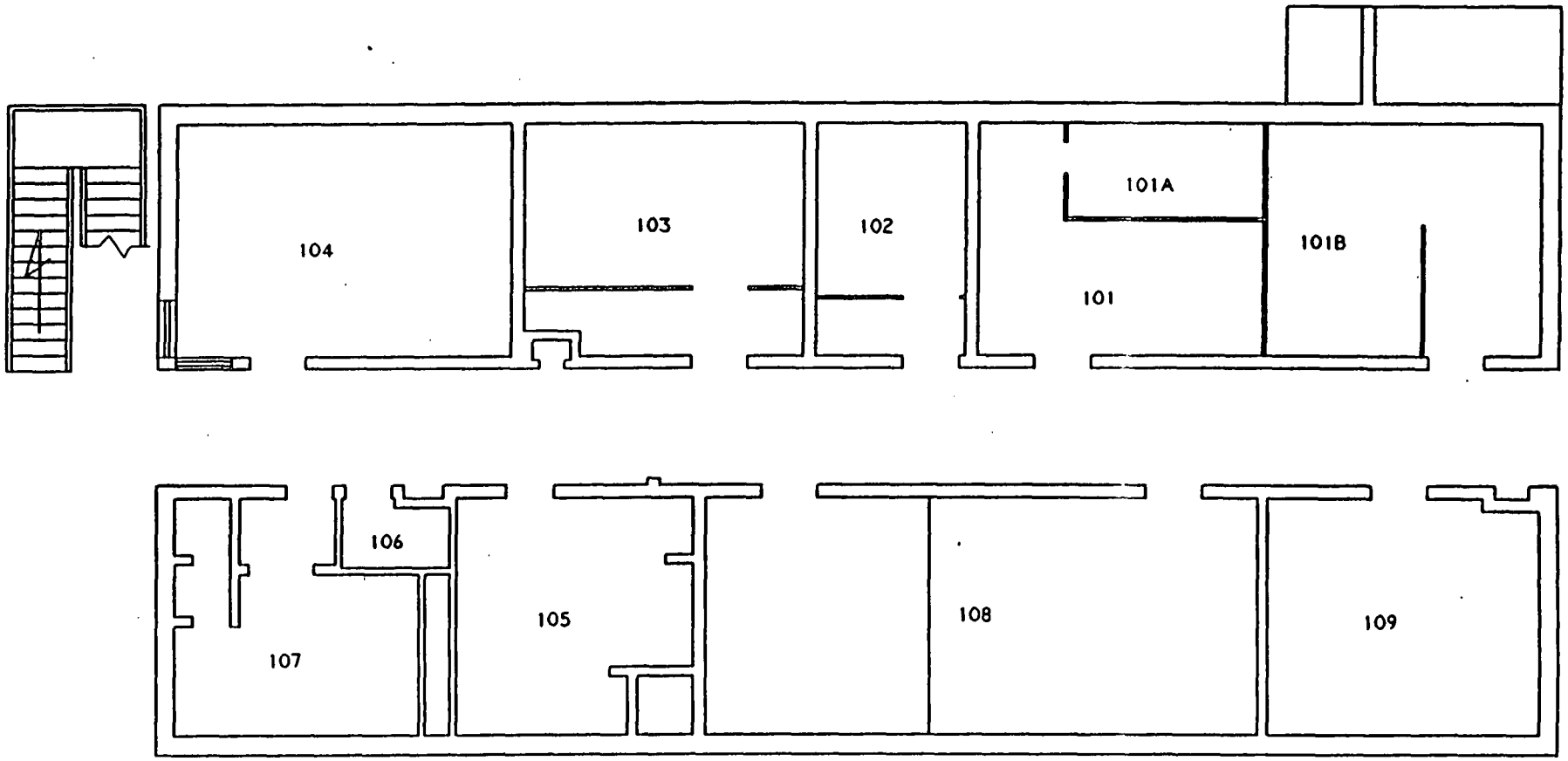
C1 of 93

Building 42 – RSDS Results

RSDS #	Building Section	Sample Location	All Samples Meet Surface Release Criteria
00-TF-0388	Corridor, Rooms 104, 105, and 107	Curb base coat, floor tile, curbing, wall, insulation, ceiling, gasket/wall, gasket/floor, piping, and plaster/wall.	Yes
00-TF-395	Corridor, Rooms 101B, 101, 102, 103, 108, and 109	Walls, floor, ceiling, curb, pass-box, fumehood, foam wrap, piping, plaster, and insulation.	Yes
00-TF-396	Room 106	Air duct, ceiling material, and pipe insulation.	Yes
00-TF-403	South, north, and west exterior walls	Sealant, gas pipe insulation, wall, and plexi-wall.	Yes
00-TF-404	Room 108 and 104 (after asbestos tile sampling)	Floors.	Yes
00-TF-407	Corridor	Walls, floors, ceiling, vents (inside and on roof), fumehood, and sink.	Yes
00-TF-408	Room 104	Floor, walls, ceiling, and vent.	Yes
00-TF-409	Rooms 109 and 108	Floor, walls, ceiling, fume hood, vent, and vent duct.	Yes
00-TF-410	Rooms 105, 106, and 107	Floor, walls, ceiling, vent, sink, fumehood, and floor drain.	Yes
00-TF-411	Room 201 (penthouse)	Floor, walls, ceiling, vents.	Yes
00-TF-412	Rooms 101A, 101B, 102, and 103	Water.	Yes
00-TF-413	Rooms 101A and 101B	Walls, ceiling, vents, sink, and fumehood.	Yes
00-TF-414	Rooms 102 and 103, and fumehood screen in 101B	Walls, ceiling, vents, and fumehood screen.	Yes
00-TF-443	Rooms 101, 101A, 101B, 102, and 103	Floor	Yes

All radiological surveys of Building 42 are below surface release criteria; there were no elevated readings. Survey areas included all areas of the building, as shown on the attached floorplan. During and after demolition, all rolloffs and debris piles will be radiologically surveyed to determine disposition of demolition debris. Disposition will be per the direction of Waste Management.

REV	DATE	REVISION	BY	CHKD	SUPD	UPDTD	APVD	N
8	12/12/91	ASBUILT ISSUE	DCW				DVD	



UNCLASSIFIED

DERIVATIVE CLASSIFIER

(Name)

(Title) (Date) 2/20/96

0 1' 3' 5' 10'

BLDG #42
FIRST FLOOR
BLDG CODE:3042

APPROVALS: SAFETY COMMITTEE REVIEWED: ___NONE ___TRUEDOC ___TEDOC ___DOOC DATE:
TECH. REVP. ___
SR. MGR. ___
TRUEDOC ___
TEDOC ___

NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

SHEET	1	2	3	4	5	6
TOTAL	8	8				

FINAL CLASSIFICATION

DRAWING CLASSIFICATION: UCNI

TITLE: BLDG #42 FLOOR PLANS

(U) TITLE CLASSIFICATION

SIZE: C | DRAWING NUMBER: FSC911252 | JOB NUMBER: 12335

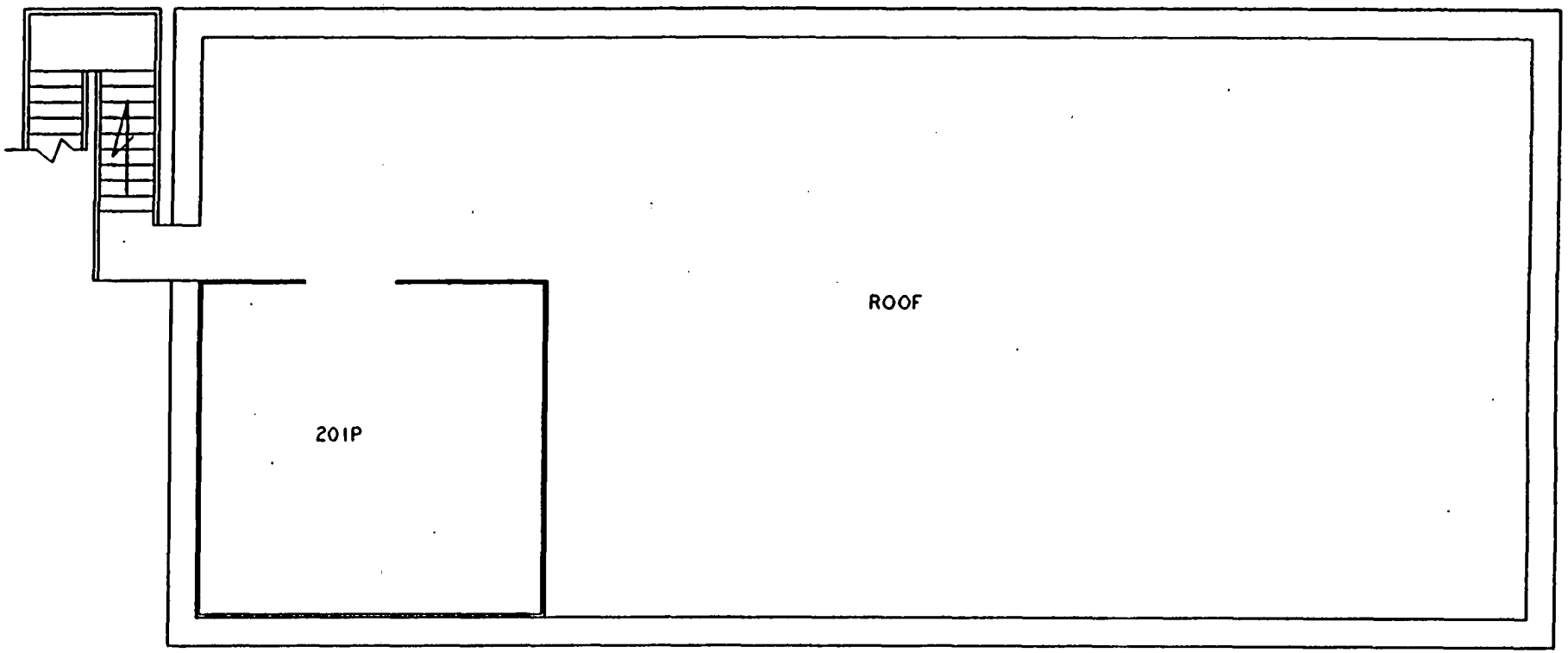
DWG TYPE: SFP | FROM: BLDG #42 | CODE: 14845 | SCALE AS NOTED | SHEET 1 OF 2

STATUS: MD-REL-12/12/91 | ORIGIN: MD-BR3-V3.4

C 3 of 93

G2 of 77

9.64-63



UNCLASSIFIED

DERIVATIVE CLASSIFIER

(Title) (Date) 3/20/96

BLDG #42
PENTHOUSE
BLDG CODE:3042

NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

DRAWING NUMBER	FSC911252
JOB NUMBER	12335
DRAWING CLASSIFICATION	UCNI
SIZE	C
CODE	14865
SCALE	AS NOTED
TOTAL	8
SHEET	2
STATUS	MD-REL-12/12/91

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G3 of 77 9.64-61

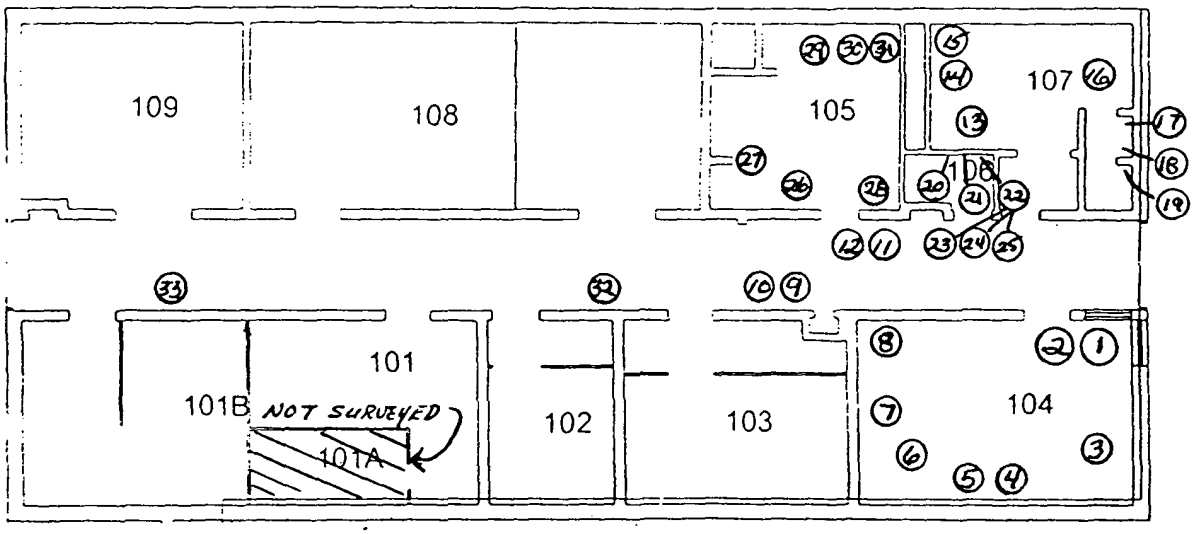
30-22 K1-K33 M

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG. 42	SURVEY NO. 00-TF-0388
PURPOSE: Pre-work Conditions: I.H. To sample for asbestos	RWP NO. N/A
	DATE: 11-07-00
	TIME: 0950

MAP/DRAWING

NOTE: Rm. 101A not surveyed per L. Lanisa (Engr.) ... concerns by safety of explosive dusts potential.



BLDG. POSTING: NO RADIOLOGICAL postings.

→ Hazard Posting for Bldg. 42

NORTH

<5000 dpm/100cm² β
<1000 dpm/100cm² α
(ALL)

Electra Bkg. = 2.8 dpm/100cm² α

Direct Scan of Sweep Locations:

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	5611-5613	03/19/01
	A	
	N	

Completed by: (Signature) William A. Jones	HPs [redacted]	Date: 11-7-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HPs [redacted]	Date: 11-7-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature) [signature]	HPs [redacted]	Date: 11-15-00
Reviewed/Approved by: (Print Name) GALEN TOMLINSON		

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C 8/6 93

G 4/6 77

Survey No. 00-TF-0388

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
	Swipes (dpm/100cm²)			
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED			Curb Base Coat
2				Floor Tile
3				Floor Tile
4				Curbing
5				WALL
6				FLOOR TILE
7				FLOOR TILE
8				CURBING
9				INSULATION
10				WALL
11				CURBING
12				FLOOR
13				CEILING
14				GASKET/WALL
15				WALL
16				GASKET/FLOOR
17				CEILING
18				CEILING
19				INSULATION
20				
21				
22				
23				
24				
25				INSULATION
26				CURBING
27				CURBING
28				CURBING
29				COUNTER TOP
30				PIPING
31				PLASTER/WALL
32				INSULATION
33				INSULATION
			N/A	

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

COMMENTS: Smears Scanned < 1000 dpm/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)

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Alpha/Beta Analysis

Batch ID: 00-TF-0388 JONES BLDG.#42 (33) CYR

Batch File: Smear Unit 3 - 200011071041
Group: A
Device: Unit 3
Geometry: Swipe/Smear
Serial Number: 59123

Acquisition Date: 11/7/2000
Count Time (min): 1.5
Recalibration Date: 5/17/2001

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	7	2.34	4.69	2.54	3.60
2	21	2.33	4.69	5.08	5.09
3	76	0.00	0.02	1.27	2.54
4	14	2.33	4.69	5.08	5.09
5	138	2.34	4.69	3.81	4.41
6	86	0.00	0.11	6.36	5.69
7	51	4.67	6.63	6.34	5.69
8	10	4.68	6.63	5.07	5.09
9	39	0.00	0.07	3.82	4.41
10	64	0.00	0.04	2.54	3.60
11	70	2.33	4.69	6.35	5.69
12	17	2.34	4.69	3.81	4.41
13	32	2.34	4.69	1.26	2.55
14	100	0.00	0.11	6.36	5.69
15	119	0.00	0.02	1.27	2.54
16	10	0.00	0.07	3.82	4.41
17	23	2.34	4.69	1.26	2.55
18	30	2.33	4.69	7.63	6.23
19	119	0.00	0.07	3.82	4.41

C26 93

C6 96 77

395

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
20	84	2.34	4.69	3.81	4.41
21	7	0.00	0.07	3.82	4.41
22	127	2.33	4.69	5.08	5.09
23	91	2.34	4.69	3.81	4.41
24	61	0.00	0.09	5.09	5.09
25	144	2.34	4.69	1.26	2.55
26	140	0.00	0.07	3.82	4.41
27	36	2.34	4.69	2.54	3.60
28	65	→ 7.01	8.12	8.88	6.74
29	100	0.00	0.13	7.63	6.23
30	140	0.00	0.11	6.36	5.69
31	10	0.00	0.11	6.36	5.69
32	48	2.34	4.69	3.81	4.41
33	60	0.00	0.09	5.09	5.09

280693

G706 77

07-Nov-2000 16:55 ALPHA/BETA - 1.09 Page #1
Protocol #: 4 Pw H3 20cc #405828 User : 5681

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	4.91
Region B:	2.0 -	18.6	0	0.0	4.83
Region C:	40.0 -	2000	0	0.0	10.70

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
00-TF-0388 JONES BLDG.#42 (30-22 R1-R33) 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\SDATA4.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	4.91	4.83	0	B	522.95		0.00	10.70
0	2.00	897.34	852.03	0		526.65	2197.76	196.81	0.00
1	2.00	0.00	0.00	0		441.75	0.00	0.00	2.30
2	2.00	0.59	0.67	0		552.92	1.41	8.61	0.00
3	2.00	0.59	0.67	0		433.09	1.61	9.86	0.00
4	2.00	0.00	0.00	0		487.86	0.00	0.00	0.00
5	2.00	1.33	1.15	0		593.62	3.07	8.78	0.00
6	2.00	0.00	0.00	0		501.87	0.00	0.00	0.00
7	2.00	3.09	2.67	0		544.35	7.44	10.23	2.80
8	2.00	2.59	2.07	0		504.34	6.47	10.31	0.00
9	2.00	3.09	3.12	0		475.06	7.98	10.97	0.00
10	2.00	0.09	0.17	0		613.31	0.20	7.86	0.00
11	2.00	1.59	1.07	0		504.43	3.97	9.67	0.00
12	2.00	0.29	0.37	0		531.25	0.70	8.57	0.00
13	2.00	0.80	0.39	0		621.74	1.81	8.26	0.00
14	2.00	0.00	0.00	0		433.36	0.00	0.00	0.00
15	2.00	0.00	0.00	0		457.32	0.00	0.00	0.00
16	2.00	0.59	0.46	0		562.26	1.40	8.54	0.00
17	2.00	1.59	1.02	0		490.09	4.04	9.81	3.30
18	2.00	2.80	2.88	0		561.95	6.64	9.91	0.00
19	2.00	1.59	1.67	0		549.70	3.81	9.29	0.00
20	2.00	3.59	3.67	0		496.73	8.03	10.98	0.00
21	2.00	3.59	3.56	0		508.31	8.94	10.87	0.00
22	2.00	1.59	1.53	0		522.71	3.90	9.51	0.00
23	2.00	2.59	2.27	0		557.89	6.17	9.82	0.00
24	2.00	1.09	1.12	0		477.26	2.80	9.63	0.00
25	2.00	0.39	0.98	0		478.22	2.30	9.48	0.00
26	2.00	0.00	0.00	0		481.99	0.00	0.00	0.00
27	2.00	0.00	0.00	0		497.54	0.00	0.00	0.00
28	2.00	0.00	0.00	0		444.92	0.00	0.00	0.00
29	2.00	0.56	0.64	0		340.42	1.83	11.72	0.00
30	2.00	0.99	0.56	0		454.61	2.64	9.86	0.00
31	2.00	2.09	2.17	0		501.19	5.24	10.02	0.00
32	2.00	3.09	2.98	0		566.32	7.30	10.04	0.00
33	2.00	0.00	0.00	0		498.38	0.00	0.00	0.00

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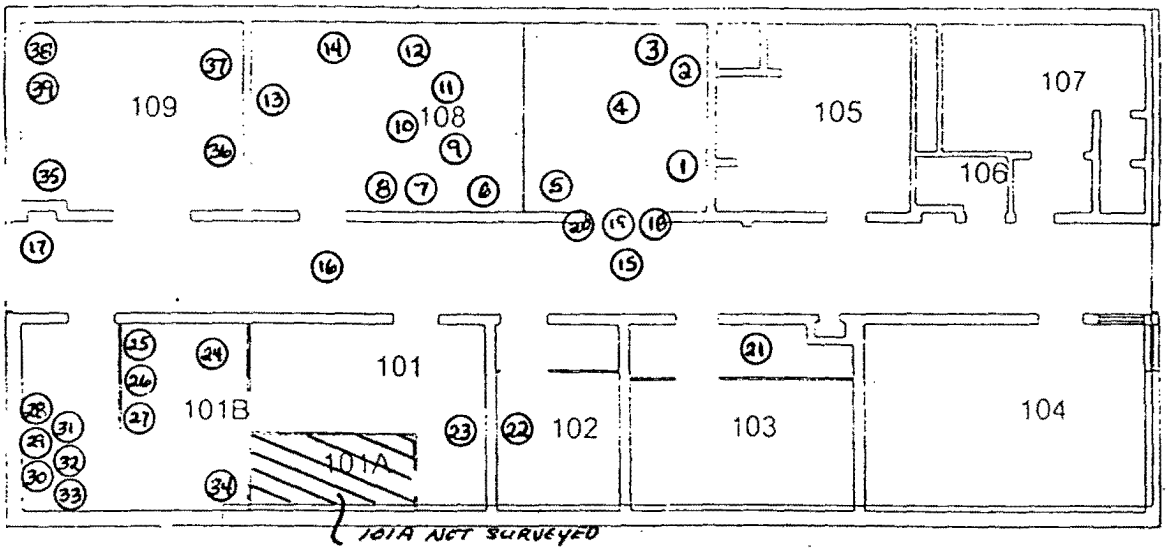
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG. 42	SURVEY NO. 00-TF-395
PURPOSE: Pre-work conditions I.H. to sample for asbestos	RWP NO. N/A
	DATE: 11-08-00
	TIME: 1545

MAP/DRAWING



No Radiological Postings
BLDG. 42

Direct Scan of Smear Locations:
< 5000 dpm/100cm² β⁻
< 100 dpm/100cm² α

Electra Bkg. = 2.7 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
Electra	5611-5613	03/19/01

Completed by: (Signature) William G. Jones	HP# [redacted]	Date: 11-09-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HP# [redacted]	Date: 11-9-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature) Kathy Stock	HP# [redacted]	Date: 11-15-00
Reviewed/Approved by: (Print Name) GALEN TOMLINSON		

ML-9620 (2-98)

Survey No. 00-TF-395

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED			WALL
2				WALL
3				WALL
4				FLOOR
5				FLOOR
6				WALL
7				WALL
8				WALL
9				FLOOR
10				FLOOR
11				FLOOR
12				FLOOR
13				FLOOR
14				FLOOR
15				Ceiling
16				Ceiling
17				Ceiling
18				FLOOR
19				FLOOR
20				FLOOR
21				CURB
22				PASS-BOX
23				PASS-BOX
24				HOOD
25				FOAM WRAP
26				FOAM WRAP
27				FOAM WRAP
28				COND. PIPING
29				
30				
31				
32				
33				COND. PIPING
34				PLASTER
35				CURB

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	SEE ATTACHED			CURB
37				CURB
38				INSULATION
39				INSULATION
		N	A	

COMMENTS: Smears Scanned < 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)

C 11 of 93

G 10 of 77

Alpha/Beta Analysis

Batch ID: 00-TF-395 JONES BLDG.#42 (39) CYR

Batch File: Smear Unit 2 - 200011090721
Group: J
Device: Unit 2
Geometry: Swipe/Smear
Serial Number: 59544

Acquisition Date: 11/9/2000
Count Time (min): 1.5
Recalibration Date: 5/17/2001

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	38	0.00	0.09	3.86	4.46
2	112	0.00	0.06	2.58	3.64
3	2	0.00	0.06	2.58	3.64
4	68	0.00	0.06	2.58	3.64
5	57	2.03	4.10	9.01	6.82
6	79	0.00	0.15	6.44	5.76
7	52	0.00	0.15	6.44	5.76
8	36	0.00	0.12	5.15	5.15
9	33	2.04	4.10	5.14	5.15
10	49	0.00	0.15	6.44	5.76
11	7	2.04	4.10	3.86	4.46
12	33	2.04	4.10	3.86	4.46
13	148	2.04	4.10	2.57	3.64
14	19	0.00	0.15	6.44	5.76
15	107	0.00	0.09	3.86	4.46
16	93	2.04	4.10	3.86	4.46
17	21	2.04	4.10	2.57	3.64
18	36	0.00	0.09	3.86	4.46
19	45	0.00	0.12	5.15	5.15

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Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
20	133	0.00	0.09	3.86	4.46
21	50	2.04	4.10	3.86	4.46
22	93	2.03	4.10	7.72	6.31
23	51	0.00	0.12	5.15	5.15
24	5	0.00	0.03	1.29	2.58
25	13	0.00	0.06	2.58	3.64
26	111	0.00	0.09	3.86	4.46
27	99	0.00	0.09	3.86	4.46
28	7	0.00	0.06	2.58	3.64
29	83	0.00	0.15	6.44	5.76
30	146	0.00	0.09	3.86	4.46
31	69	0.00	0.03	1.29	2.58
32	98	0.00	0.06	2.58	3.64
33	99	0.00	0.03	1.29	2.58
34	136	0.00	0.18	7.73	6.31
35	143	6.14	7.10	5.13	5.16
36	2	0.00	0.09	3.86	4.46
37	108	0.00	0.03	1.29	2.58
38	25	0.00	0.09	3.86	4.46
39	30	2.03	4.10	6.43	5.76

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Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	6.98
Region B:	2.0 -	18.6	0	0.0	6.72
Region C:	40.0 -	2000	0	0.0	12.53

[illegible]
Ext Std Terminator: Count
30-TF-395 JONES BLDG.#42 (30-23 N1-N39) 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	6.98	6.72	12.53	664.56	1	B		0.00
0	2.00	812.98	780.44	0.00	553.92	0		1923.88	170.39
1	2.00	0.52	0.52	0.00	592.09	0		1.20	9.66
2	2.00	0.00	0.00	0.00	598.08	0		0.00	0.00
3	2.00	9.78	9.23	9.40	505.03	0		24.19	15.00
4	2.00	5.27	5.52	1.09	445.07	0		14.07	13.99
5	2.00	0.00	0.00	0.00	481.15	0		0.00	0.00
6	2.00	0.00	0.00	0.00	578.98	0		0.00	0.00
7	2.00	0.02	0.28	0.00	564.68	0		0.06	9.61
8	2.00	1.35	0.84	2.52	598.94	0		3.08	10.05
9	2.00	0.00	0.00	0.97	458.15	0		0.00	0.00
10	2.00	2.02	2.09	0.00	551.55	0		4.80	10.82
11	2.00	0.07	0.06	0.00	522.15	0		0.17	10.00
12	2.00	0.00	0.00	0.00	396.61	0		0.00	0.00
13	2.00	0.02	0.28	0.00	509.12	0		0.06	10.09
14	2.00	3.02	2.55	8.87	572.82	0		7.04	11.13
15	2.00	0.00	0.00	0.00	603.14	0		0.00	0.00
16	2.00	0.00	0.00	0.00	418.84	0		0.00	0.00
17	2.00	0.00	0.00	0.00	615.64	0		0.00	0.00
18	2.00	0.00	0.00	0.85	272.95	0		0.00	0.00
19	2.00	0.00	0.00	0.47	305.17	0		0.00	0.00
20	2.00	0.00	0.00	0.00	381.01	0		0.00	0.00
21	2.00	0.00	0.00	0.00	476.12	0		0.00	0.00
22	2.00	0.00	0.00	0.00	309.39	0		0.00	0.00
23	2.00	10.76	11.01	13.97	444.32	0		28.75	16.67
24	2.00	1.44	1.69	0.00	340.32	0		4.63	14.27
25	2.00	0.00	0.00	0.00	418.19	0		0.00	0.00
26	2.00	2.43	2.69	0.00	442.74	0		6.52	12.46
27	2.00	9.56	9.58	0.00	491.96	0		24.03	15.15
28	2.00	0.00	0.00	0.00	547.27	0		0.00	0.00
29	2.00	0.00	0.00	1.47	461.37	0		0.00	0.00
30	2.00	1.78	1.26	0.00	601.76	0		4.04	10.24
31	2.00	0.00	0.00	0.00	505.06	0		0.00	0.00
32	2.00	0.00	0.00	0.00	488.69	0		0.00	0.00
33	2.00	0.00	0.00	0.00	556.24	0		0.00	0.00
34	2.00	0.00	0.00	0.00	302.82	0		0.00	0.00
35	2.00	0.02	0.28	0.00	408.87	0		0.07	11.50

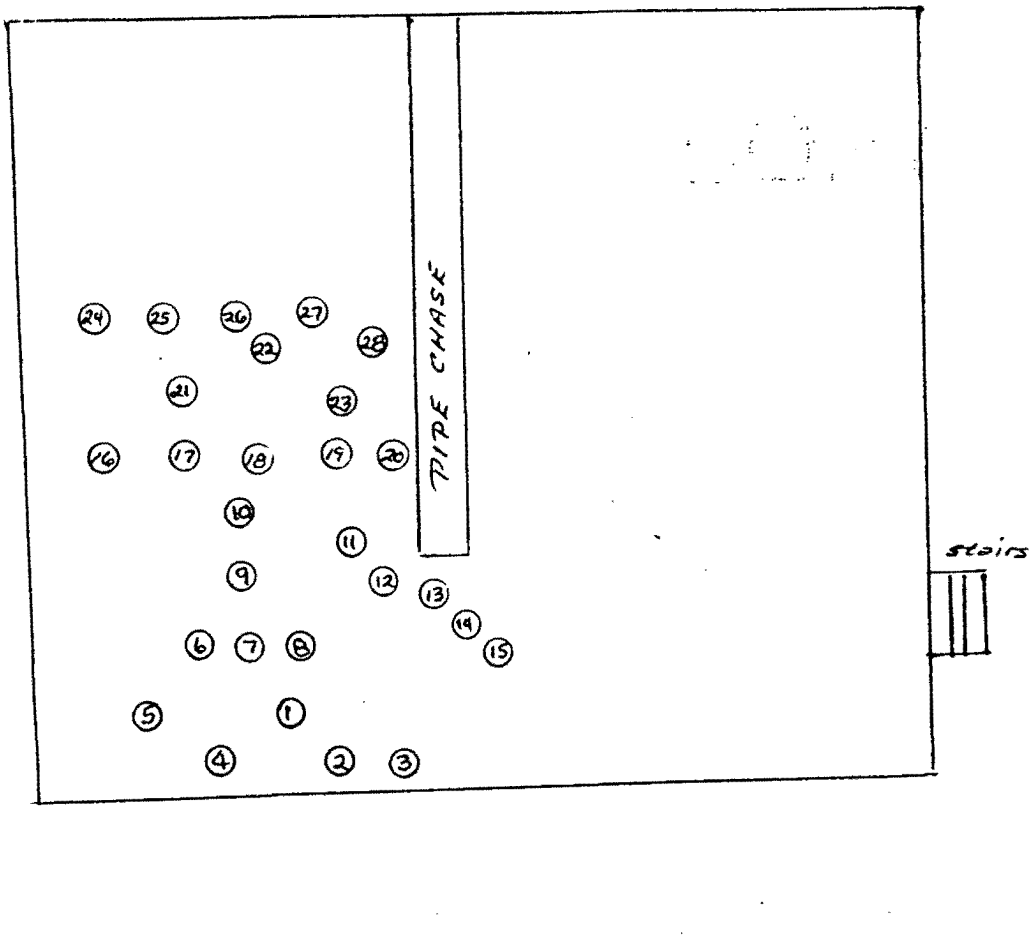
S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM FLAG	DPM1	2SIGMA
36	2.00	0.00	0.00	0.00	459.62	0	0.00	0.00
37	2.00	0.00	0.00	0.00	358.79	0	0.00	0.00
38	2.00	0.00	0.00	0.00	578.22	0	0.00	0.00
39	2.00	0.00	0.00	0.00	531.25	0	0.00	0.00

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 42 - Rm. 106 Pipe Chase	SURVEY NO. 00-TF-396
PURPOSE: Pre-work Conditions I.H. To sample for asbestos	RWP NO. N/A
	DATE: 11-09-00
	TIME: 1315

MAP/DRAWING

Direct Scan of Smear Locations (ALL)
< 5000 dpm/100 cm² β-



Electra Bkg. = 2.7 dpm/100 cm² 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
Electra	5611-5613	03-19-01

Completed by: (Signature) William G. Jones	HPS [redacted]	Date: 11-15-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HPS [redacted]	Date: 11-9-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature) Galen Tomlinson	HPS [redacted]	Date: 11-15-00
Reviewed/Approved by: (Print Name) GALEN TOMLINSON		

ML-9620 (2-98)

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Survey No.
00-TF-896

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		Air Duct
2				
3				
4				Air Duct
5				Ceiling MAT
6				Ceiling MAT
7				Ceiling MAT
8				Pipe Insulation
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				Pipe Insulation
21				Ceiling MAT
22				Ceiling MAT
23				Ceiling MAT
24				Ceiling MAT
25				Pipe Insulation
26				
27				
28				Pipe Insulation
		N	A	

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

COMMENTS: 5 meers Scanned <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)

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR140
Batch Ended: 11/9/2000 15:20
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-396 JONES 42-106 (29) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activit		
		DPM	σ	flags	DPM	σ	flags
A2	1	0.00	2.21	<MDA	0.70	1.99	<MDA
A3	2	0.00	1.94	<MDA	0.34	1.75	<MDA
A4	3	0.00	2.11	<MDA	0.00	1.46	<MDA
B1	4	1.27	2.04	<MDA	2.80	2.93	<MDA
B2	5	0.00	1.90	<MDA	0.10	1.96	<MDA
B3	6	0.00	2.03	<MDA	0.00	1.59	<MDA
B4	7	1.36	1.93	<MDA	2.65	2.71	<MDA
C1	8	0.00	1.68	<MDA	0.00	1.27	<MDA
C2	9	1.27	1.83	<MDA	1.94	2.24	<MDA
C3	10	0.00	1.98	<MDA	0.00	1.40	<MDA
C4	11	0.00	1.77	<MDA	0.00	1.25	<MDA
D1	12	0.00	2.02	<MDA	0.00	1.48	<MDA
D2	13	0.00	2.07	<MDA	0.00	1.28	<MDA
D3	14	0.00	2.12	<MDA	0.00	1.57	<MDA
D4	15	0.00	2.02	<MDA	1.39	2.12	<MDA
A2	16	0.00	2.20	<MDA	0.00	1.42	<MDA
A3	17	0.00	1.95	<MDA	1.50	2.09	<MDA
A4	18	0.00	2.13	<MDA	1.67	2.40	<MDA
B1	19	1.53	2.03	<MDA	0.00	1.65	<MDA
B2	20	0.00	1.89	<MDA	0.00	1.48	<MDA
B3	21	1.12	2.03	<MDA	0.00	1.59	<MDA
B4	22	0.00	1.92	<MDA	1.44	2.37	<MDA
C1	23	0.00	1.70	<MDA	0.00	1.68	<MDA
C2	24	0.00	1.81	<MDA	1.05	1.96	<MDA
C3	25	0.00	1.98	<MDA	0.00	1.40	<MDA
C4	26	0.00	1.77	<MDA	0.00	1.25	<MDA
D1	27	0.00	2.02	<MDA	0.00	1.48	<MDA

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR140
Batch Ended: 11/9/2000 15:20
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-396 JONES 42-106 (29) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activit		
		DPM	σ	flags	DPM	σ	flags
D2	28	0.00	2.07	<MDA	0.00	1.28	<MDA
D3	29	1.52	2.12	<MDA	0.00	1.57	<MDA

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09 Nov 2000 20:48 ALPHA/BETA - 1.09 Page #1
Protocol #: 6 PW 5CC H3 #403727 User : 5681

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	6.59
Region B:	2.0 -	18.6	0	0.0	6.35
Region C:	40.0 -	2000	0	0.0	9.50

Quench Indicator: SIE, H#
Ext Std Terminator: Count
00-TF-396 JONES 42-106 PIPECHASE (30-23 V1-V29) CR
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	6.59	6.35	9.50	665.02	2	B		0.00
0	2.00	842.11	807.84	1.50	557.24	0		1987.09	175.06
1	2.00	1.12	1.36	0.00	434.79	0		3.04	11.51
2	2.00	0.00	0.00	0.00	622.78	0		0.00	0.00
3	2.00	0.00	0.00	0.00	623.20	0		0.00	0.00
4	2.00	0.20	0.00	2.00	417.96	0		0.54	11.15
5	2.00	0.91	1.15	0.00	572.54	0		2.12	9.78
6	2.00	1.41	1.65	0.00	552.85	0		3.34	10.23
7	2.00	0.00	0.00	0.00	571.67	0		0.00	0.00
8	2.00	0.00	0.00	0.00	524.03	0		0.00	0.00
9	2.00	0.00	0.00	0.00	488.95	0		0.00	0.00
10	2.00	0.18	0.41	5.00	446.28	0		0.47	10.72
11	2.00	2.91	2.77	0.00	552.12	0		6.90	11.04
12	2.00	0.00	0.00	1.50	490.04	0		0.00	0.00
13	2.00	0.00	0.00	0.00	536.53	0		0.00	0.00
14	2.00	0.00	0.00	0.00	446.41	0		0.00	0.00
15	2.00	1.91	2.15	3.00	592.68	0		4.37	10.15
16	2.00	1.93	2.16	5.00	550.30	0		4.57	10.53
17	2.00	0.41	0.56	3.00	498.08	0		1.02	10.17
18	2.00	0.00	0.00	0.00	566.74	0		0.00	0.00
19	2.00	0.00	0.00	0.00	608.33	0		0.00	0.00
20	2.00	2.11	2.35	0.00	561.41	0		4.97	10.53
21	2.00	2.91	3.15	1.00	587.25	0		6.69	10.71
22	2.00	3.62	3.86	1.50	600.53	0		8.25	10.94
23	2.00	0.00	0.00	0.00	536.78	0		0.00	0.00
24	2.00	0.00	0.00	3.00	556.72	0		0.00	0.00
25	2.00	0.00	0.00	0.00	537.94	0		0.00	0.00
26	2.00	4.91	5.14	0.00	448.86	0		13.05	13.49
27	2.00	0.00	0.00	3.00	404.08	0		0.00	0.00
28	2.00	0.00	0.00	0.00	392.62	0		0.00	0.00
29	2.00	0.00	0.00	0.50	431.14	0		0.00	0.00

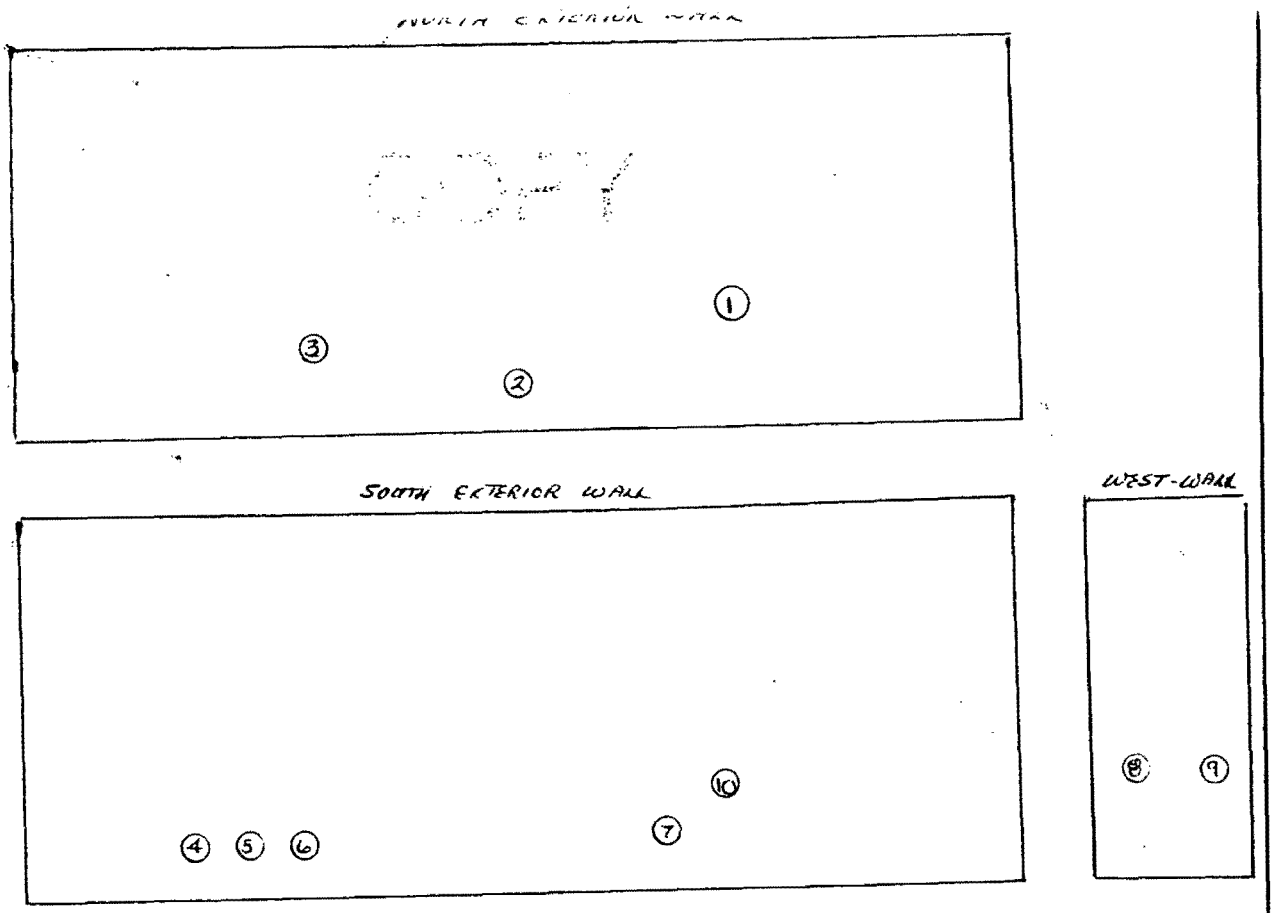
wdg

DI-D10 30-23 P4

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 42 - Exterior Walls	SURVEY NO. OC-TF-403
PURPOSE: Prework Survey Asbestos Sampling	RWP NO. N/A
	DATE: 11-15-00
	TIME: 1445

MAP/DRAWING



Direct Scan of Smear Locations
< 5000 dpm/100cm² β⁻ ; < 100 dpm/100cm² α

Electra Bkg =
3.2 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
Electra	5611-5613	3-19-01
	N A	

Completed by: (Signature) William Jones	HP# [redacted]	Date: 11-20-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HP# [redacted]	Date: 11-16-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature) [signature]	HP# [redacted]	Date: 11-21-00
Reviewed/Approved by: (Print Name) GALEN TOMLINSON		

ML-9620 (2-98)

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Survey No.
00-TF-403

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		Pentr. Sealant
2				Gas Pipe Insul
3				WALL
4				Pipe Insul.
5				
6				Pipe insul.
7				Pipe Pentr.
8				Plexi-wall
9				
10				Plexi-wall

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

COMMENTS: Smears Scanned < 1000 dpm/100 cm² 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: 00-TF-403 JONES 42-EXTERIOR WALLS (10) CYR.

Batch File: Smear Unit 1 - 200011161003
Group: H
Device: Unit 1
Geometry: Swipe/Smear
Serial Number: 64937

Acquisition Date: 11/16/2000
Count Time (min): 1.5
Recalibration Date: 5/17/2001

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	105	0.00	0.01	2.29	3.24
2	114	0.00	0.01	2.29	3.24
3	142	0.00	0.00	1.15	2.29
4	83	0.00	0.01	2.29	3.24
5	39	0.00	0.00	1.15	2.29
6	14	1.91	3.83	1.14	2.29
7	12	1.91	3.83	6.86	5.61
8	129	0.00	0.02	5.73	5.12
9	14	0.00	0.00	1.15	2.29
10	85	0.00	0.01	2.29	3.24

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Time. 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2σ%	BKG
Region A:	0.5 -	18.6	0	0.0	4.22
Region B:	2.0 -	18.6	0	0.0	4.04
Region C:	40.0 -	2000	0	0.0	9.38

[illegible]
Ext Std Terminator: Count
00-TF-403 JONES 42 EXTERIOR WALLS 30-23 D1-D11 CY3
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns). Normal
Protocol Data Filename: C:\DATA\PROT4.DAT
Count Data Filename: C:\DATA\SDATA4.DAT
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	CPMC	SSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	4.22	4.04	9.38	970.71	2	B		0.00
0	2.00	819.51	783.91	0.00	555.77	0		1888.18	171.22
1	2.00	0.78	0.73	0.00	575.48	0		1.62	7.94
2	2.00	4.53	3.91	1.62	816.36	0		10.18	9.86
3	2.00	1.73	1.43	1.12	585.31	0		4.07	8.48
4	2.00	5.78	5.96	1.12	586.98	5		13.53	10.94
5	2.00	3.28	3.03	2.62	566.88	0		7.68	9.56
6	2.00	2.28	2.24	1.62	573.64	9		5.31	8.93
7	2.00	1.78	1.96	0.00	563.90	0		4.13	8.69
8	2.00	1.78	1.24	0.00	570.88	0		4.16	8.88
9	2.00	1.95	1.48	1.62	532.80	0		4.70	8.09
10	2.00	3.28	3.25	0.00	567.48	0		7.68	8.57

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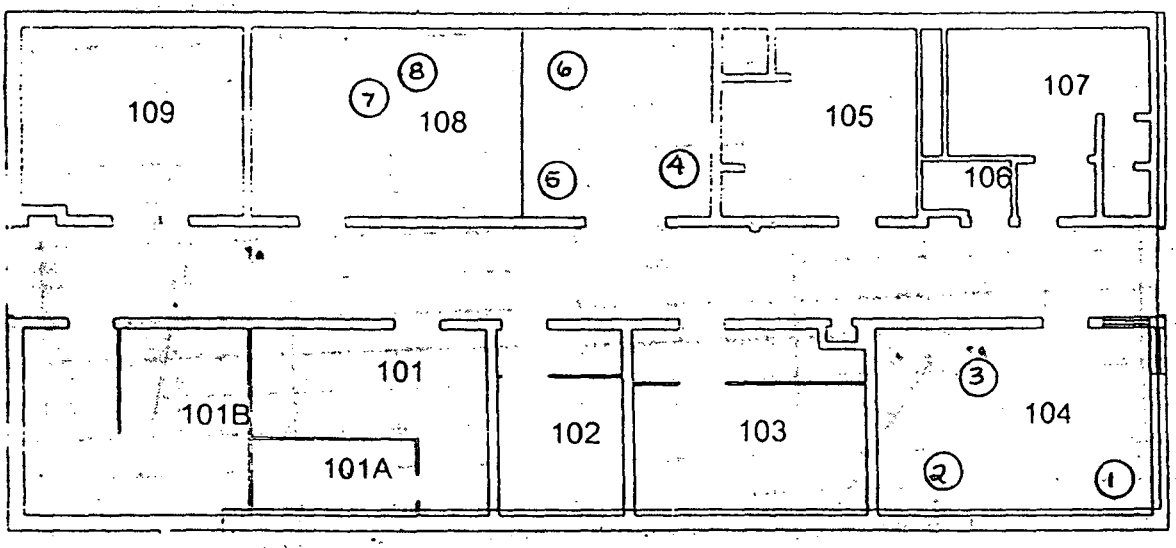
E1-E8 30-23 P5

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg. 42 ~ Rms. 104 & 108	SURVEY NO. 00-TF-404
PURPOSE: Follow-up Conditions Post Floor Tile Asbestos Sampling	RWP NO. N/A
	DATE: 11-15-00
	TIME: 1615

MAP/DRAWING

COPY



Scan & Smear Locations:
<5000 dpm/100 cm² β⁻
<100 dpm/100 cm² α

Electric Bldg. = 8.2 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
Electra	5611-5613	3-19-01

Completed by: (Signature) William G. Jones	HP# [redacted]	Date: 11-20-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HP# [redacted]	Date: 11-16-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature) [illegible]	HP# [redacted]	Date: 11-21-00
Reviewed/Approved by: (Print Name) GALEN TEMLINSON		

ML-9620 (2-98)

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Survey No. 00-TF-404

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		Floor
2				
3				
4				
5				
6				
7				
8				Floor
		N	A	

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

COMMENTS: Smears Scanned < 1000dpm/100cm² 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)

C2688.93

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Alpha/Beta Analysis

Batch ID: 00-TF-404 JONES BLDG.42-RM 104 & 108 (8) CYR

Batch File: Smear Unit 1 - 200011161005
Group: A
Device: Unit 1
Geometry: Swipe/Smear
Serial Number: 64937

Acquisition Date: 11/16/2000
Count Time (min): 1.5
Recalibration Date: 5/17/2001

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	61	0.00	0.01	3.44	3.97
2	140	1.91	3.83	3.43	3.97
3	89	0.00	0.01	2.29	3.24
4	113	0.00	0.02	4.58	4.58
5	99	0.00	0.01	3.44	3.97
6	75	0.00	0.02	4.58	4.58
7	23	0.00	0.01	2.29	3.24
8	71	5.74	6.63	10.28	6.88

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3/4

16 Nov 2000 14:59 ALPHA/BETA - 1.09 Page #1
Protocol #: 5 PW 5CC H3 #403727 User : 5681

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	5.20
Region B:	2.0	- 18.6	0	0.0	5.12
Region C:	40.0	- 2000	0	0.0	9.24

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
00-TF-404 JONES 42-104 &108 (30-23 E1-E8) 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	5.20	5.12	9.24	663.36	6	B		0.00
0	2.00	976.89	942.87	2.66	547.65	0		2324.32	200.37
1	2.00	0.00	0.00	0.42	196.51	17		0.00	0.00
2	2.00	1.30	1.38	3.13	341.82	0		4.17	12.50
3	2.00	0.30	0.38	0.00	314.36	0		1.02	12.39
4	2.00	1.80	1.88	0.00	563.41	0		4.22	9.44
5	2.00	0.00	0.00	6.76	171.21	0		0.00	0.00
6	2.00	1.80	1.38	0.00	485.33	7		4.56	10.19
7	2.00	0.00	0.00	1.76	221.75	20		0.00	0.00
8	2.00	0.00	0.00	0.00	355.77	0		0.00	0.00

wg

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WW-W36 30-23 FY

RADIOLOGICAL SURVEY DATA SHEET

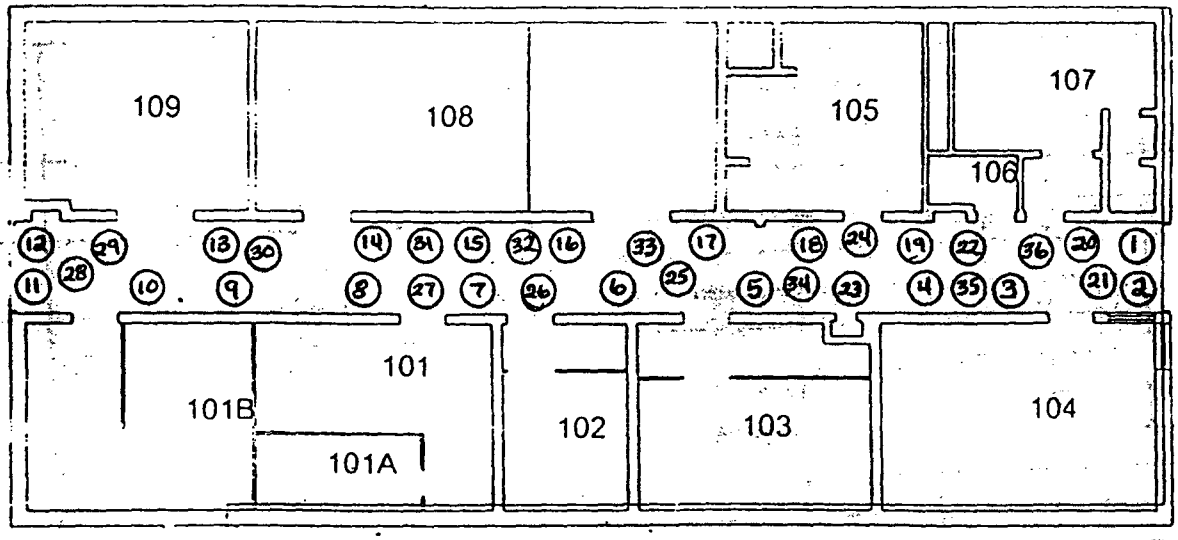
LOCATION: (BLDG./AREA/ROOM) 42 - Hallway	SURVEY NO. 00-TF-407
PURPOSE: Bldg. B1N Verification Survey	RWP NO. N/A
	DATE: 11-21-00
	TIME: 1310

MAP/DRAWING

LARGE AREA MASSLINN of WALLS, FLOOR, and CEILING
All <5000 dpm/100cm² β-
<100 dpm/100cm² α

COPY

Bldg. Not posted ~~posted~~
RW 12-12-00



Direct Scan of Smear location(s)
All
<5000 dpm/100 cm² β-
<100 dpm/100 cm² α

Electra Bkg. = 3.8 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
Electra	5579-5580	03-01-01
	A	
	N	

Completed by: (Signature) William A. Jones	HPs [redacted]	Date: 11-22-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HPs [redacted]	Date: 11-21-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature)	HPs [redacted]	Date: 12-12-00
Reviewed/Approved by: (Print Name) Robert Milks		

ML-9620 (2-98) C29 of 93 G28 of 77

Survey No.
00-TF-407

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		WALLS
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				WALLS
21				FLOOR
22				
23				
24				
25				
26				
27				
28				FLOOR
29				CEILING
30				
31				
32				
33				
34				
35				CEILING

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

COMMENTS: Smears Scanned < $1000 dpm/100cm^2$ 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)

C30 of 93 G29 of 77

Rad Characterization Plan to Bin Building 42

Number of Samples (Total Number of Sample Locations = 267)					
Room #	Floor	Walls	Ceiling	Drain/sinks /vents	Comments
Hallway	8	20	8	0	3 vents
101	4	8	4	5	1 vent + 4 vents
101A	4	8	4	3	1 vent, 1 sink, 1 fumehood
101B	4	8	4	1	1 vent
102	4	8	4	3	3 vents
103	4	8	4	2	2 vents
104	4	8	4	3	3 vents
105	4	8	4	3	1 vent, 1 sink, 1 fumehood
106	4	8	4	1	1 vent
107	4	8	4	4	2 vents, 1 sink, 1 floor drain
108	4	8	4	4	3 vents + 1 fumehood
109	4	8	4	4	3 vents + 1 fumehood
201P	4	8	4	4	2 vents inside + 2 on roof
TOTAL =	56	116	56	37	TOTAL ALL = 265 samples

1. One direct and one smear per location
2. For the hallway take 2 surveys each for the two short walls, 8 surveys each for the floor, ceiling, and two long walls.
3. Each wall is to have 2 samples taken at diagonal corners with the exception of the hallway. On the adjacent walls pick sample locations that maximizes the distance from adjacent wall samples.
4. Floors and ceilings are to be divided into quadrants with a survey taken in the center of each quadrant.
5. Do not disturb suspended ceilings.

Larry T. Lamsa - November 8, 2000

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR206
Batch Ended: 11/21/2000 14:35
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-407 JONES 42-HALLWAY (36) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activi		
		DPM	σ	flags	DPM	σ	flags
A2	1	0.00	2.26	<MDA	6.30	3.44	<AL
A3	2	0.00	1.97	<MDA	4.96	2.90	<AL
A4	3	0.00	2.12	<MDA	0.32	1.99	<MDA
B1	4	0.00	2.04	<MDA	1.50	2.58	<MDA
B2	5	0.00	1.90	<MDA	0.10	1.96	<MDA
B3	6	0.00	2.05	<MDA	2.89	2.93	<MDA
B4	7	1.42	1.92	<MDA	1.34	2.37	<MDA
C1	8	1.25	1.68	<MDA	0.00	1.27	<MDA
C2	9	0.00	1.79	<MDA	0.00	1.64	<MDA
C3	10	0.00	1.99	<MDA	0.24	1.87	<MDA
C4	11	0.00	1.78	<MDA	0.26	1.67	<MDA
D1	12	0.00	2.03	<MDA	0.00	1.98	<MDA
D2	13	0.00	2.11	<MDA	3.82	2.63	<AL
D3	14	0.00	2.12	<MDA	0.00	1.57	<MDA
D4	15	0.00	2.01	<MDA	0.21	1.76	<MDA
A2	16	0.00	2.21	<MDA	0.70	1.99	<MDA
A3	17	0.00	1.97	<MDA	4.96	2.90	<AL
A4	18	3.73	2.97	<AL	1.39	2.40	<MDA
B1	19	0.00	2.03	<MDA	0.00	1.65	<MDA
B2	20	1.25	1.90	<MDA	1.27	2.34	<MDA
B3	21	0.00	2.04	<MDA	1.47	2.56	<MDA
B4	22	1.49	1.92	<MDA	0.03	1.98	<MDA
C1	23	0.00	1.72	<MDA	2.14	2.29	<MDA
C2	24	1.27	1.83	<MDA	1.94	2.24	<MDA
C3	25	0.00	1.98	<MDA	0.00	1.40	<MDA
C4	26	1.49	1.80	<AL	1.20	2.01	<MDA
D1	27	0.00	2.03	<MDA	0.00	1.98	<MDA

C32pg 93

G31 pg 77

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR206
Batch Ended: 11/21/2000 14:35
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-407 JONES 42-HALLWAY (36) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activ		
		DPM	σ	flags	DPM	σ	flags
D2	28	0.00	2.09	<MDA	1.52	2.07	<MDA
D3	29	1.52	2.12	<MDA	0.00	1.57	<MDA
D4	30	0.00	2.01	<MDA	0.21	1.76	<MDA
A2	31	2.16	2.21	<AL	0.53	1.99	<MDA
A3	32	1.45	1.97	<MDA	4.85	2.90	<AL
A4	33	0.00	2.14	<MDA	3.02	2.76	<MDA
B1	34	1.44	2.03	<MDA	0.00	2.17	<MDA
B2	35	0.00	1.90	<MDA	1.38	2.34	<MDA
B3	36	0.00	2.04	<MDA	0.05	2.13	<MDA

C3386 93

G3286 77

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21 Nov 2000 19:18 ALPHA/BETA - 1.09 Page #1
Protocol #: 4 PW 5CC H3 #403727 User : 5681

Time: 2:00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	18.6	0	0.0	8.28
Region B:	2.0	18.6	0	0.0	7.79
Region C:	40.0	2000	0	0.0	10.50

Ext Std Terminator: Count
00-TF-407 JONES 42-HALLWAY (30-23 U1-U36) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT4.DAT
Count Data Filename: C:\DATA\SDATA4.DAT
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	8.28	7.79	10.50	666.61	1	B		0.00
0	2.00	835.22	800.27	0.00	555.28	0		1974.20	174.24
1	2.00	1.22	1.40	1.00	505.61	0		3.01	11.67
2	2.00	5.22	4.52	0.00	557.23	0		12.32	13.02
3	2.00	0.00	0.00	0.00	575.98	0		0.00	0.00
4	2.00	0.00	0.00	0.00	605.91	0		0.00	0.00
5	2.00	4.22	2.77	1.00	647.78	0		9.24	11.67
6	2.00	0.00	0.00	0.00	580.32	0		0.00	0.00
7	2.00	0.22	0.00	0.00	611.65	0		0.49	10.16
8	2.00	2.22	1.67	0.00	598.32	0		5.06	11.24
9	2.00	0.00	0.00	0.50	622.99	0		0.00	0.00
10	2.00	0.00	0.00	0.00	577.62	0		0.00	0.00
11	2.00	1.22	1.71	1.50	604.06	0		2.77	10.72
12	2.00	3.22	2.78	0.00	569.78	0		7.52	11.99
13	2.00	41.72	35.45	3.50	564.04	0		97.87	24.90
14	2.00	0.22	0.00	0.00	601.19	0		0.50	10.25
15	2.00	4.22	4.39	0.00	507.72	0		10.40	13.14
16	2.00	0.00	0.02	0.00	557.49	0		0.00	0.00
17	2.00	0.00	0.00	0.00	581.92	0		0.00	0.00
18	2.00	2.72	2.14	0.50	553.89	0		6.44	11.92
19	2.00	1.72	1.18	0.00	597.58	0		3.92	11.01
20	2.00	0.22	0.00	0.00	616.44	0		0.49	10.12
21	2.00	0.00	0.00	0.00	661.54	0		0.00	0.00
22	2.00	5.02	4.17	0.00	602.98	0		11.39	12.44
23	2.00	0.00	0.00	1.00	658.89	0		0.00	0.00
24	2.00	1.22	1.31	0.00	671.55	0		2.62	10.15
25	2.00	1.72	0.00	1.00	645.15	0		3.77	10.59
26	2.00	0.00	0.00	0.00	622.84	0		0.00	0.00
27	2.00	0.00	0.21	0.50	672.86	0		0.00	0.00
28	2.00	0.00	0.00	0.00	669.68	0		0.00	0.00
29	2.00	0.00	0.00	0.00	359.89	0		0.00	0.00
30	2.00	1.22	1.11	0.00	505.67	0		3.01	11.67
31	2.00	0.00	0.00	0.50	487.68	0		0.00	0.00
32	2.00	0.25	0.75	0.50	505.47	0		0.62	11.15
33	2.00	0.00	0.00	0.00	476.79	0		0.00	0.00
34	2.00	3.72	2.73	0.00	584.11	0		8.58	12.07

21 Nov 2000 21:07 ALPHA/BETA - 1.09 Page #2
Protocol #: 4 PW 5CC H3 #403727 User : 568

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM FLAG	DPM1	2SIGMA
35	2.00	0.00	0.00	0.00	516.27	0	0.00	0.00
36	2.00	0.00	0.00	0.00	487.59	0	0.00	0.00

30-23 P1

RADIOLOGICAL SURVEY DATA SHEET

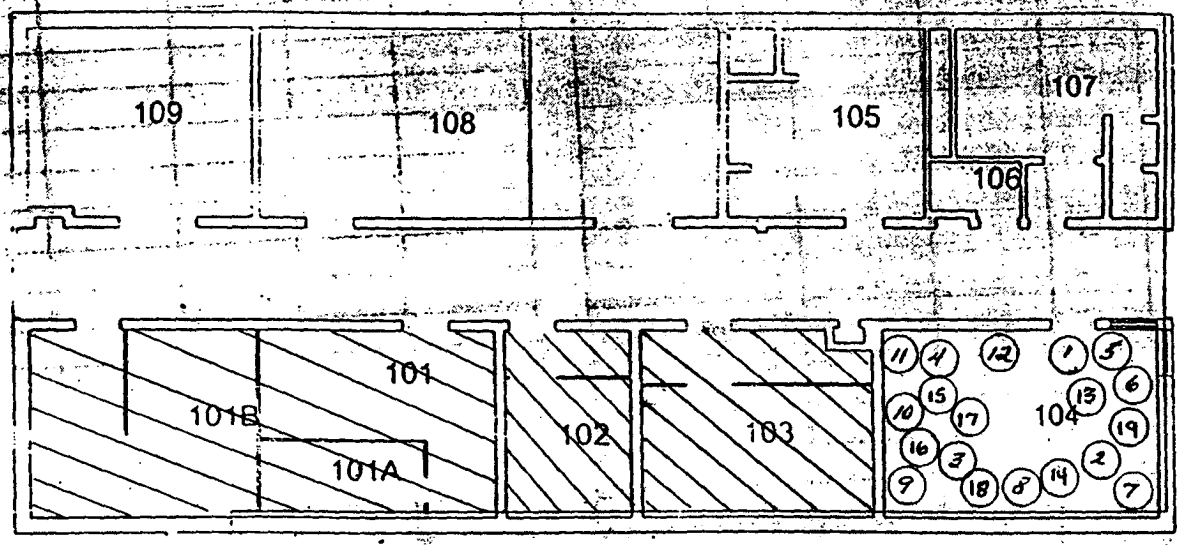
LOCATION: (BLDG/AREA/ROOM) 42 [redacted]	SURVEY NO. 408
PURPOSE: BIN BLDG. Verification Survey	RWP NO. N/A
	DATE: 11-22-00
	TIME: 1550

MAP/DRAWING

Large Area Wipe Sample of Floor. Dilution not posted.

All < 5000 dpm/100cm² β-
< 100 dpm/100cm² α

COPY



Rms. 101 ~ 101A ~ 101B ~ 102 ~ 103 not surveyed at this time. Floor covered w/ water and ice.

Direct Scan of Smear Locations
All < 5000 dpm/100cm² β-
< 100 dpm/100cm² α

Electra Bkg. = 1.4 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
Electra	5579-5580	03-01-01

Completed by: (Signature) William G. Jones	HPR [redacted]	Date: 11-27-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HPR [redacted]	Date: 11-22-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature)	HPR [redacted]	Date: 12-12-00
Reviewed/Approved by: (Print Name) Robert Miles		

ML-9620 (2-98) C36-6 93 G35 of 77

Survey No. [illegible] Page ___ of ___

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination					
Swipes (dpm/100cm²)					
Sample #	β/γ	Alpha	Tritium		Comments
1	SEE	ATTACHED			FLOOR
2					
3					
4					FLOOR
5					WALLS
7					
8					
9					
10					
11					
12					WALLS
13					Ceiling
14					
15					
16					Ceiling
17					O/H Vent
18					O/H Vent
19					O/H Vent
		N	A		

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

COMMENTS: Smears Scanned < 1000 dpm/100cm² 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)

C370693 G360677

Rad Characterization Plan to Bin Building 42

Number of Samples (Total Number of Sample Locations = 267)					
Room #	Floor	Walls	Ceiling	Drain/sinks /vents	Comments
Hallway	8	20	8	0	3 vents
101	4	8	4	3	1 vent + 4 vents
101A	4	8	4	3	1 vent, 1 sink, 1 fumehood
101B	4	8	4	1	1 vent
102	4	8	4	3	3 vents
103	4	8	4	2	2 vents
104	4	8	4	3	3 vents
105	4	8	4	3	1 vent, 1 sink, 1 fumehood
106	4	8	4	1	1 vent
107	4	8	4	4	2 vents, 1 sink, 1 floor drain
108	4	8	4	4	3 vents + 1 fumehood
109	4	8	4	4	3 vents + 1 fumehood
201P	4	8	4	4	2 vents inside + 2 on roof
TOTAL =	56	116	56	37	TOTAL ALL = 265 samples

11/21/00 (WK)

11/21/00 (WK)

11/21/00 (WK)

1. One direct and one smear per location
2. For the hallway take 2 surveys each for the two short walls, 8 surveys each for the floor, ceiling, and two long walls.
3. Each wall is to have 2 samples taken at diagonal corners with the exception of the hallway. On the adjacent walls pick sample locations that maximizes the distance from adjacent wall samples.
4. Floors and ceilings are to be divided into quadrants with a survey taken in the center of each quadrant.
5. Do not disturb suspended ceilings.

Larry T. Lamsa - November 8, 2000

C38 of 93 G37 of 77

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR211
Batch Ended: 11/22/2000 9:17
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-408 JONES 42-4 (19) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activi		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	2.05	<MDA	4.29	3.25	<AL
B2	2	0.00	1.89	<MDA	0.00	1.48	<MDA
B3	3	0.00	2.03	<MDA	0.00	1.59	<MDA
B4	4	0.00	1.92	<MDA	1.44	2.37	<MDA
C1	5	0.00	1.70	<MDA	0.00	1.68	<MDA
C2	6	0.00	1.79	<MDA	0.00	1.64	<MDA
C3	7	0.00	1.99	<MDA	0.24	1.87	<MDA
C4	8	0.00	1.77	<MDA	0.00	1.25	<MDA
D1	9	1.41	2.02	<MDA	0.00	1.48	<MDA
D2	10	0.00	2.07	<MDA	0.00	1.28	<MDA
D3	11	0.00	2.15	<MDA	2.80	2.86	<MDA
D4	12	0.00	2.03	<MDA	2.57	2.43	<MDA
B1	13	0.00	2.03	<MDA	0.00	1.65	<MDA
B2	14	1.30	1.90	<MDA	0.00	1.96	<MDA
B3	15	0.00	2.04	<MDA	1.47	2.56	<MDA
B4	16	0.00	1.92	<MDA	0.13	1.98	<MDA
C1	17	1.25	1.70	<MDA	0.00	1.68	<MDA
C2	18	0.00	1.78	<MDA	0.00	1.25	<MDA
C3	19	0.00	1.98	<MDA	0.00	1.40	<MDA

C3267 93

G3867 77

4/4/5

27 Nov 2000 08:47 ALPHA/BETA - 1.09 Page #1
Protocol #: 1 PW 5CC H3 #403727 User : 5681

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2SX	BKG
Region A:	0.5 -	18.6	0	0.0	6.90
Region B:	2.0 -	18.6	0	0.0	6.58
Region C:	40.0 -	2000	0	0.0	9.70

Quench Indicator: tSIE/AEC
Ext Std Terminated: Count
00-TF-408 JONES 42-4 (30-23 E1-E19) 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	6.90	6.58	9.70	669.82	6	B		0.00
0	2.00	435.05	416.28	3.30	548.87	0		1034.05	103.74
1	2.00	1.60	1.57	0.00	639.73	6		3.52	9.82
2	2.00	1.26	0.34	4.40	583.92	0		2.90	10.10
3	2.00	0.00	0.00	3.67	576.47	0		0.00	0.00
4	2.00	1.98	1.57	0.00	512.09	0		4.85	11.15
5	2.00	5.81	4.07	1.30	621.42	0		12.99	11.92
6	2.00	0.00	0.00	0.00	622.67	0		0.00	0.00
7	2.00	1.60	1.26	0.30	632.05	0		3.55	9.88
8	2.00	0.00	0.00	0.00	581.91	0		0.00	0.00
9	2.00	2.06	2.38	1.46	637.29	0		4.54	10.06
10	2.00	1.73	1.55	0.00	675.60	0		3.70	9.61
11	2.00	0.98	0.45	0.00	605.39	0		2.22	9.77
12	2.00	0.00	0.00	0.00	635.49	8		0.00	0.00
13	2.00	4.99	4.76	1.30	602.63	4		11.34	11.75
14	2.00	0.00	0.00	0.30	551.75	7		0.00	0.00
15	2.00	2.13	1.21	2.30	581.11	5		4.93	10.58
16	2.00	2.48	1.80	1.80	542.25	5		5.93	11.12
17	2.00	0.00	0.00	1.30	484.39	0		0.00	0.00
18	2.00	1.10	0.33	5.30	569.49	0		2.57	10.14
19	2.00	0.10	0.42	0.00	418.21	0		0.28	11.37

RADIOLOGICAL SURVEY DATA SHEET

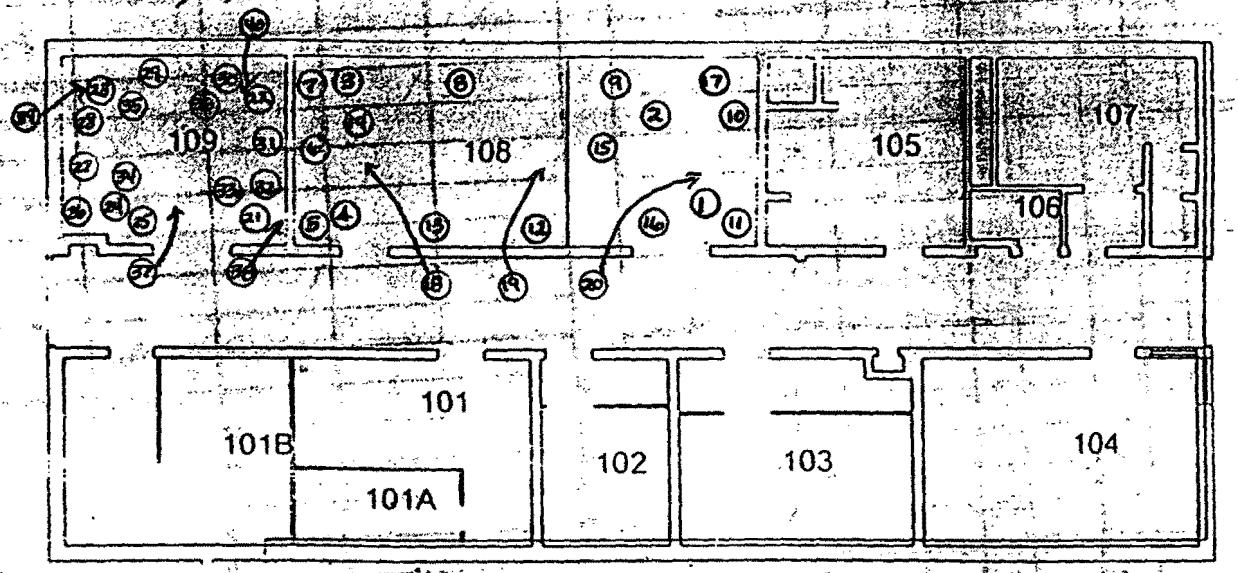
Page 1 of 2

LOCATION: (BLDG/AREA/ROOM)	SURVEY NO.
PURPOSE: Bldg. 204 Verification Survey	RWP NO. n/a DATE: [illegible] TIME: [illegible]

MAP/DRAWING

Larger size matrix of [illegible] and fume hoods
< 5000 dpm/100cm² β
< 100 dpm/100cm² α

COPY



Bldg. not posted

Direct Scan & Smear locations
ALL
< 5000 dpm/100cm² β
< 100 dpm/100cm² α

Electra Bkg. = 3.8 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
Electra	5314-5468	03-13-01

Completed by: (Signature)	[redacted]	Date:
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	[redacted]	Date: 11-27-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature) [illegible]	[redacted]	Date: 12-12-00
Reviewed/Approved by: (Print Name) Robert Miles		

ML-9620 (2-98) C41693 G4006 77

Survey No.

Page of

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		FLOOR
2				
3				
4				FLOOR
5				WALL
6				
7				
8				
9				
10				
11				
12				WALL
13				CEILING
14				
15				
16				CEILING
17				FUME HOOD
18				VENT
19				VENT
20				VENT
21				FLOOR
22				
23				
24				FLOOR
25				WALL
26				
27				
28				
29				
30				
31				
32				WALL
33				CEILING
34				CEILING
35				CEILING

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	SEE	ATTACHED		CEILING
37				i/s Vent
38				~~i/s Vent~~ Fumehood
39				o/s Vent duct
40				o/s vent duct
		N	A	

COMMENTS: Smears Scanned <1000dpm/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)

C42 of 93   G41 of 77

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR228
Batch Ended: 11/27/2000 13:33
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-409 JONES 42 RMS. 108 & 109 (40) CYR

C43 of 93 G42 of 77

Detector ID	Sample ID	Alpha Activity			Beta Activi		
		DPM	σ	flags	DPM	σ	flags
A2	1	0.00	2.24	<MDA	3.50	2.81	<AL
A3	2	3.34	2.71	<AL	1.27	2.09	<MDA
A4	3	0.00	2.13	<MDA	1.67	2.40	<MDA
B1	4	0.00	2.03	<MDA	0.10	2.17	<MDA
B2	5	0.00	1.90	<MDA	0.10	1.96	<MDA
B3	6	0.00	2.04	<MDA	1.47	2.56	<MDA
B4	7	0.00	1.92	<MDA	0.13	1.98	<MDA
C1	8	1.25	1.72	<MDA	1.97	2.29	<MDA
C2	9	1.28	1.78	<MDA	0.00	1.25	<MDA
C3	10	0.00	1.98	<MDA	0.00	1.40	<MDA
D1	11	0.00	2.03	<MDA	0.00	1.98	<MDA
D2	12	0.00	2.07	<MDA	0.00	1.28	<MDA
D3	13	0.00	2.13	<MDA	0.04	2.09	<MDA
D4	14	0.00	2.03	<MDA	2.57	2.43	<MDA
A2	15	2.17	2.20	<AL	0.00	1.42	<MDA
A3	16	0.00	1.95	<MDA	2.65	2.39	<MDA
A4	17	0.00	2.18	<MDA	8.42	3.86	<AL
B1	18	0.00	2.03	<MDA	0.10	2.17	<MDA
B2	19	0.00	1.90	<MDA	0.10	1.96	<MDA
B3	20	0.00	2.03	<MDA	0.00	1.59	<MDA
B4	21	0.00	1.92	<MDA	0.13	1.98	<MDA
C1	22	0.00	1.68	<MDA	0.00	1.27	<MDA
C2	23	0.00	1.81	<MDA	1.05	1.96	<MDA
C3	24	0.00	2.00	<MDA	1.49	2.25	<MDA
D1	25	1.40	2.05	<MDA	1.11	2.37	<MDA
D2	26	0.00	2.09	<MDA	1.52	2.07	<MDA
D3	27	0.00	2.12	<MDA	0.00	1.57	<MDA

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR228
Batch Ended: 11/27/2000 13:33
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-409 JONES 42 RMS. 108 & 109 (40) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activi		
		DPM	σ	flags	DPM	σ	flags
D4	28	0.00	2.01	<MDA	0.00	1.31	<MDA
A2	29	0.00	2.20	<MDA	0.00	1.42	<MDA
A3	30	1.46	1.94	<MDA	0.23	1.75	<MDA
A4	31	0.00	2.14	<MDA	3.02	2.76	<MDA
B1	32	0.00	2.03	<MDA	0.10	2.17	<MDA
B2	33	1.30	1.90	<MDA	0.00	1.96	<MDA
B3	34	0.00	2.04	<MDA	0.05	2.13	<MDA
B4	35	1.61	1.91	<AL	0.00	1.48	<MDA
C1	36	0.00	1.71	<MDA	1.04	2.01	<MDA
C2	37	0.00	1.86	<MDA	4.27	2.71	<AL
C3	38	1.47	1.99	<MDA	0.07	1.87	<MDA
D1	39	0.00	2.05	<MDA	1.30	2.37	<MDA
D2	40	0.00	2.07	<MDA	0.00	1.28	<MDA

C44 of 53

G43 of 77

27 Nov 2000 15:45 ALPHA/BETA - 1.09 Page #1
Protocol #: 7 PW 5CC H3 #403727 User : 5681

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	18.6	0	0.0	7.48
Region B:	2.0	18.6	0	0.0	7.43
Region C:	40.0	2000	0	0.0	11.64

Quench Indicator: tSIE/AEC

00-TF-409 JONES 42 108 /109 (30-23 H1-H40) 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	7.48	7.43	11.64	663.55	6	B		0.00
0	2.00	865.58	936.90	2.36	539.83	0		2073.63	182.07
1	2.00	0.00	0.00	0.00	513.04	0		0.00	0.00
2	2.00	2.28	2.34	0.00	654.32	0		4.97	10.37
3	2.00	0.00	0.00	0.00	414.87	0		0.00	0.00
4	2.00	0.00	0.00	0.00	612.57	0		0.00	0.00
5	2.00	0.00	0.00	0.00	656.88	0		0.00	0.00
6	2.00	0.00	0.00	0.00	630.76	0		0.00	0.00
7	2.00	0.52	0.20	0.00	652.98	0		1.12	9.53
8	2.00	5.73	4.66	3.86	625.06	0		12.77	12.15
9	2.00	0.00	0.00	0.00	644.75	0		0.00	0.00
10	2.00	0.00	0.00	0.00	637.72	0		0.00	0.00
11	2.00	0.00	0.00	0.00	619.29	0		0.00	0.00
12	2.00	4.52	3.47	0.00	614.54	0		10.15	11.73
13	2.00	0.00	0.00	0.00	659.71	0		0.00	0.00
14	2.00	0.00	0.00	0.00	621.87	0		0.00	0.00
15	2.00	0.00	0.00	0.00	423.64	0		0.00	0.00
16	2.00	2.52	1.96	3.36	509.77	0		6.19	11.84
17	2.00	0.00	0.00	0.00	393.02	0		0.00	0.00
18	2.00	4.29	3.60	0.00	654.79	0		9.34	11.26
19	2.00	0.32	0.38	0.00	656.54	0		0.70	9.41
20	2.00	2.02	1.57	0.00	649.67	0		4.40	10.28
21	2.00	0.02	0.00	2.86	528.28	0		0.04	10.30
22	2.00	0.00	0.00	1.86	488.32	0		0.00	0.00
23	2.00	0.00	0.00	0.00	438.97	0		0.00	0.00
24	2.00	0.00	0.00	0.00	426.81	0		0.00	0.00
25	2.00	2.52	1.57	1.36	560.40	0		5.92	11.32
26	2.00	0.00	0.00	0.00	607.52	0		0.00	0.00
27	2.00	0.00	0.00	0.00	547.80	0		0.00	0.00
28	2.00	0.21	0.01	0.86	590.98	0		0.49	9.86
29	2.00	1.52	1.32	0.00	588.20	0		3.48	10.56
30	2.00	2.52	1.83	0.00	513.55	0		6.17	11.80
31	2.00	2.15	1.60	0.00	616.94	0		4.83	10.62
32	2.00	0.00	0.00	0.00	605.15	0		0.00	0.00
33	2.00	0.00	0.00	0.00	689.21	0		0.00	0.00
34	2.00	0.00	0.00	0.00	588.40	0		0.00	0.00
35	2.00	0.00	0.00	0.00	612.89	0		0.00	0.00

Protocol #: 7 PW SCC H3 #403727 User : 5681

S#	TIME	CPMA	CPMB	CPMC	±SIE	LLM FLAG	DPM1	2SIGMA
36	2.00	3.08	2.94	0.00	552.95	0	7.28	11.67
37	2.00	0.00	0.00	0.00	635.88	0	0.00	0.00
38	2.00	0.00	0.00	0.00	328.21	0	0.00	0.00
39	2.00	0.52	0.57	1.36	415.92	0	1.43	12.15
40	2.00	0.00	0.00	0.00	509.31	0	0.00	0.00

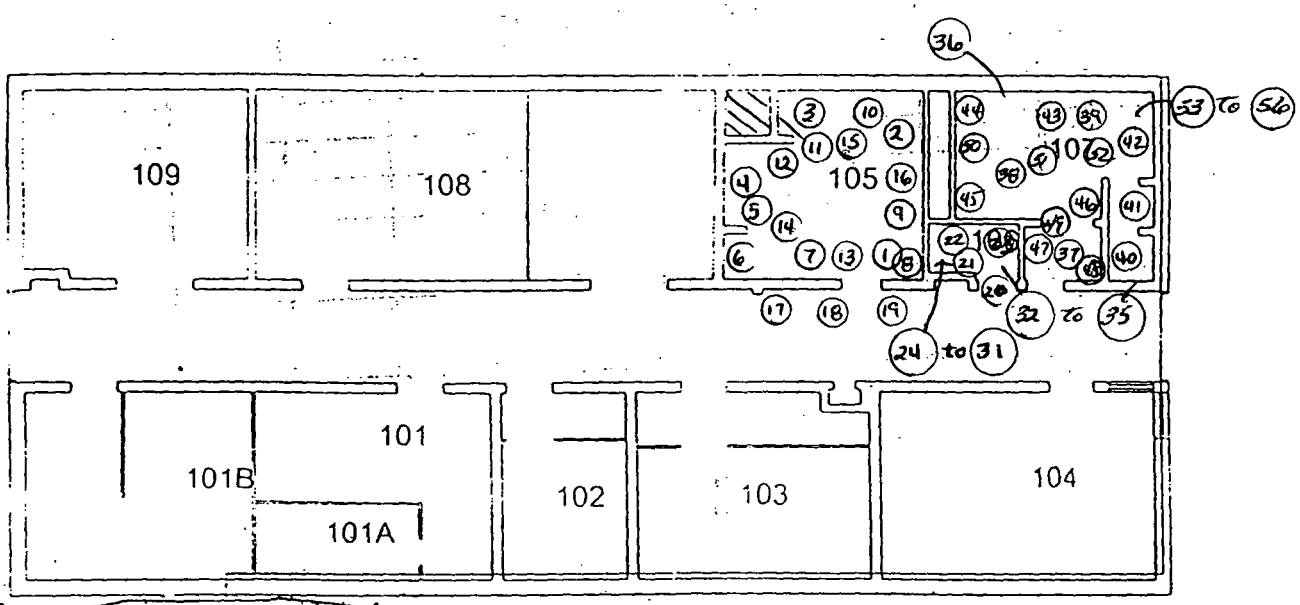
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 42 ~ Rms [illegible]	SURVEY NO. [illegible] 410
PURPOSE: Bin Bldg Verification Survey	RWP NO. N/A
	DATE: 11-28-00
	TIME: 1415

MAP/DRAWING

Large Area Masslin of Floors, Walls, Ceilings, Vents, Sinks

< 100 dpm/100 cm² α



Smears Nos. 32, 33, 34, 35 not included in this survey; area is Non-Permit Req'd. Confined Space; entry requires o/s attendant from I.H. not available at time of this survey.

Direct Scan @ Smear locations
< 5000 dpm/100 cm² β⁻
< 100 dpm/100 cm² α
ALL

Electra Bkg. = 3.8 dpm/100 cm² 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
Electra	5579-5580	03-01-01

Completed by: (Signature) William G. Jones	HP# [redacted]	Date: 11-29-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HP# [redacted]	Date: 11-28-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature) [illegible]	HP# [redacted]	Date: 12-12-00
Reviewed/Approved by: (Print Name) Robert Miles		

ML-9620 (2-98) C47-6 93 G46 of 77

Survey No. 00-[illegible]

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		FLOOR
2				
3				
4				FLOOR
5				WALL
6				
7				
8				
9				
10				
11				
12				WALL
13				CEILING
14				
15				
16				CEILING
17				VENT
18				SINK
19				FUMEHOOD
20				FLOOR
21				
22				
23				FLOOR
24				WALLS
25				
26				
27				
28				
29				
30				
31				WALLS
32		N/A		CEILING
33		N/A		
34		N/A		
35		N/A		CEILING

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	SEE	ATTACHED		VENT
37				FLOOR
38				
39				
40				
41				WALLS
42				
43				
44				
45				
46				
47				
48				WALLS
49				CEILING
50				
51				
52				CEILING
53				VENT
54				VENT
55				SINK
56				FLOOR DRAIN

COMMENTS: Smears Scanned < 1000dpm/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)

C48-6 93 G47-6 77

Alpha/Beta Analysis

Batch ID: 00-TF-410 JONES 42-105/106/107 (56) CYR

Batch File: Smear Unit 1 - 200011281428
Group: I
Device: Unit 1
Geometry: Swipe/Smear
Serial Number: 64937

Acquisition Date: 11/28/2000
Count Time (min): 1.5
Recalibration Date: 5/17/2001

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	21	1.91	3.83	3.43	3.97
2	79	0.00	0.02	4.58	4.58
3	45	0.00	0.01	2.29	3.24
4	133	3.83	5.41	1.13	2.30
5	50	1.91	3.83	2.28	3.24
6	93	3.83	5.41	3.42	3.97
7	51	0.00	0.01	2.29	3.24
8	5	0.00	0.01	2.29	3.24
9	13	0.00	0.01	3.44	3.97
10	111	0.00	0.01	3.44	3.97
11	99	0.00	0.01	2.29	3.24
12	7	0.00	0.02	4.58	4.58
13	83	3.83	5.41	3.42	3.97
14	146	1.91	3.83	1.14	2.29
15	69	0.00	0.02	4.58	4.58
16	98	1.91	3.83	5.72	5.12
17	99	1.91	3.83	8.01	6.06
18	136	1.91	3.83	5.72	5.12
19	143	7.65	7.66	7.98	6.07
20	2	1.91	3.83	2.28	3.24

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Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
21	108	0.00	0.01	2.29	3.24
22	25	0.00	0.02	4.58	4.58
23	30	0.00	0.01	2.29	3.24
24	38	1.91	3.83	5.72	5.12
25	4	0.00	0.03	6.87	5.61
26	52	0.00	0.02	5.73	5.12
27	33	0.00	0.01	2.29	3.24
28	87	1.91	3.83	4.57	4.58
29	15	0.00	0.01	2.29	3.24
30	103	0.00	0.00	1.15	2.29
31	128	1.91	3.83	3.43	3.97
~~32~~	~~100~~	~~0.00~~	~~0.02~~	~~4.58~~	~~4.58~~
~~33~~	~~85~~	~~0.00~~	~~0.00~~	~~1.15~~	~~2.29~~
~~34~~	~~143~~	~~0.00~~	~~0.00~~	~~1.15~~	~~2.29~~
~~35~~	~~93~~	~~0.00~~	~~0.01~~	~~3.44~~	~~3.97~~
36	38	1.91	3.83	3.43	3.97
37	21	0.00	0.02	5.73	5.12
38	114	1.91	3.83	4.57	4.58
39	33	1.91	3.83	6.86	5.61
40	143	0.00	0.02	4.58	4.58
41	140	0.00	0.01	3.44	3.97
42	36	0.00	0.01	2.29	3.24
43	65	0.00	0.02	4.58	4.58
44	100	1.91	3.83	3.43	3.97
45	30	0.00	0.01	3.44	3.97
46	32	0.00	0.01	3.44	3.97
47	61	0.00	0.02	4.58	4.58
		WG	WG	WG	

11-28-00 CYR

WERE NOT INCLUDED WITH SAMPLES RECEIVED

11/29/00 WG

El Paso LL. Pr 2hr

HPT

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
48	86	0.00	0.01	2.29	3.24
49	141	0.00	0.00	1.15	2.29
50	56	0.00	0.00	1.15	2.29
51	92	0.00	0.01	2.29	3.24
52	62	3.83	5.41	2.27	3.24
53	148	0.00	0.01	2.29	3.24
54	51	0.00	0.01	3.44	3.97
55	23	0.00	0.02	4.58	4.58
56	149	0.00	0.01	2.29	3.24

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CS0 of 77

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29 Nov 2000 11:08 ALPHA/BETA - 1.09 Page #1
Protocol #: 7 PW 5CC H3 #403727 User : 568

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Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2SM	3KG
Region A:	0.5 -	18.6	0	0.0	5.69
Region B:	2.0 -	18.6	0	0.0	5.53
Region C:	40.0 -	2000	0	0.0	10.22

Quench Indicator: SCIE/AEC
Ext Std Terminator: Count
~~[illegible]~~ 00-TF-410 Jones 42-105/106/107 (30-23 F1-F56) Cupp 11-29-00
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burstimer: Normal
Protocol Data Filename: C:\DATA\PROT7.DAT
Count Data Filename: C:\DATA\SDATA7.DAT

SP	TIME	DPMA	DPMB	DPYC	SCIE	LUM	FLAG	DPMI	SDIGMA
-1	10.00	5.69	5.53	10.23	665.27	5	B		0.00
0	2.00	895.32	837.11	4.77	541.94	0		2146.86	136.91
1	2.00	7.81	3.76	1.77	540.22	0		5.97	10.90
2	2.00	0.00	0.00	0.00	536.37	0		0.00	0.00
3	2.00	0.50	0.66	0.27	590.56	0		1.15	8.81
4	2.00	7.31	2.08	0.00	662.64	0		5.00	9.27
5	2.00	2.07	2.22	1.77	594.59	0		4.73	9.67
6	2.00	3.81	3.81	0.77	574.77	0		9.17	11.19
7	2.00	0.00	0.00	0.00	562.47	0		0.00	0.00
8	2.00	2.81	2.97	2.00	627.20	0		4.29	7.80
9	2.00	0.00	0.00	0.00	639.18	0		0.00	0.00
10	2.00	0.31	0.00	0.00	549.43	0		0.74	9.32
11	2.00	4.31	4.47	0.00	614.47	0		5.47	10.61
12	2.00	1.28	1.49	0.00	607.13	0		2.59	9.13
13	2.00	1.79	1.45	3.27	602.72	0		3.87	8.90
14	2.00	0.00	0.00	1.27	573.37	0		0.00	0.00
15	2.00	2.81	2.97	2.77	667.30	0		4.06	9.49
16	2.00	2.31	2.97	2.00	693.28	0		4.00	9.91
17	2.00	3.31	7.61	3.77	647.08	0		5.34	10.14
18	2.00	0.00	0.00	1.77	614.93	0		0.00	0.00
19	2.00	1.00	0.00	1.70	577.67	0		0.00	0.00
20	2.00	0.31	0.00	0.00	501.27	0		0.77	9.61
21	2.00	0.00	0.00	2.27	523.57	0		0.00	0.00
22	2.00	0.00	0.00	0.00	507.09	0		0.00	0.10
23	2.00	0.00	0.00	0.00	496.66	0		0.00	0.00
24	2.00	0.81	0.97	0.00	544.55	0		1.93	9.35
25	2.00	7.81	6.67	0.00	613.42	0		17.58	12.26
26	2.00	0.81	0.97	0.00	555.37	0		1.91	9.26
27	2.00	0.81	0.97	2.27	635.92	0		1.79	9.64
28	2.00	0.00	0.00	1.77	430.24	0		0.00	0.00
29	2.00	1.89	1.49	0.00	613.90	0		3.26	9.43
30	2.00	5.85	6.13	2.27	642.10	0		11.80	[illegible]
31	2.00	4.16	3.97	3.27	659.08	0		[illegible]	[illegible]
32	2.00	[illegible]	[illegible]	[illegible]	[illegible]	0		[illegible]	[illegible]
33	2.00	[illegible]	[illegible]	[illegible]	[illegible]	0		[illegible]	[illegible]
34	2.00	[illegible]	[illegible]	[illegible]	[illegible]	0		[illegible]	[illegible]
35	2.00	[illegible]	[illegible]	[illegible]	[illegible]	0		[illegible]	[illegible]
36	2.00	[illegible]	[illegible]	[illegible]	[illegible]	0		[illegible]	[illegible]
37	2.00	[illegible]	[illegible]	[illegible]	[illegible]	0		[illegible]	[illegible]
38	2.00	[illegible]	[illegible]	[illegible]	[illegible]	0		[illegible]	[illegible]

LOSING TUBE(S) 11/29/00 - See Cover Sheet

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29 Nov 2000 12:56 ALPHA/BETA - 1.09

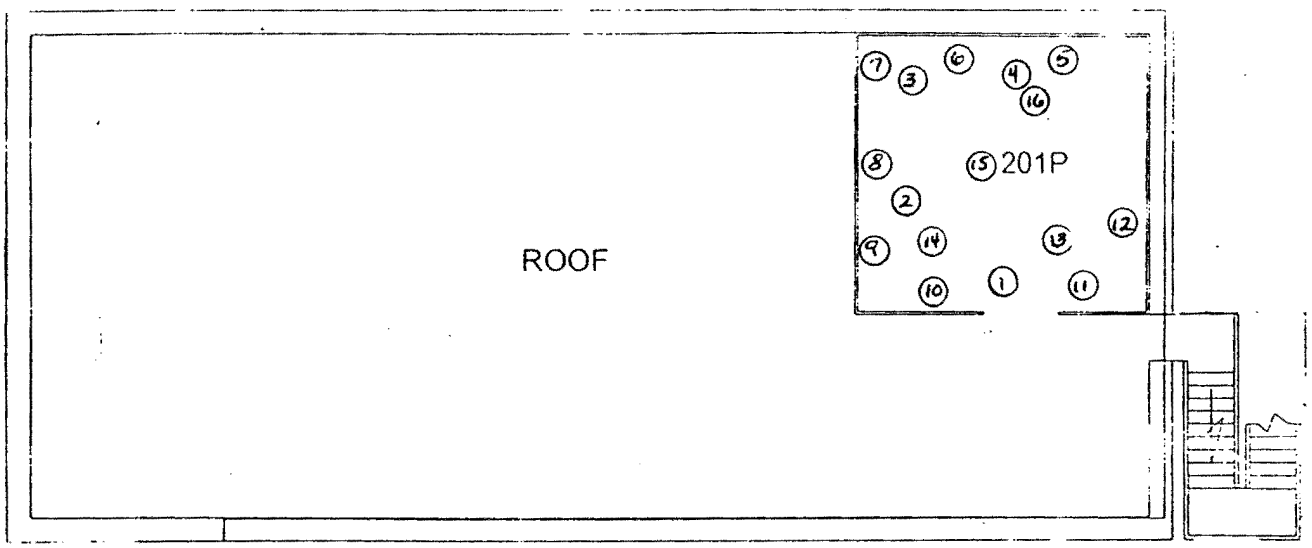
Protocol #: 7 PW 500 H3 #403727 User : 5681

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
39	2.00	0.00	0.00	0.00	393.71	0		0.00	0.00
40	2.00	0.00	0.00	2.27	600.77	0		0.00	0.00
41	2.00	1.81	1.58	0.00	659.94	0		3.92	9.04
42	2.00	1.26	1.02	0.00	664.89	0		2.71	8.71
43	2.00	1.81	0.97	0.00	647.59	0		3.96	9.12
44	2.00	0.45	0.61	0.77	617.26	0		1.01	8.58
45	2.00	3.31	2.82	0.00	626.87	0		7.37	10.06
46	2.00	1.31	0.97	0.00	643.02	0		2.88	8.89
47	2.00	2.31	1.97	0.00	649.59	0		5.05	9.37
49	2.00	0.00	0.00	0.00	482.97	0		0.00	0.00
50	2.00	5.81	5.57	0.77	669.87	0		12.49	10.97
51	2.00	0.00	0.00	0.77	335.16	0		0.00	0.00
52	2.00	0.87	1.03	0.00	671.92	0		1.88	8.46
53	2.00	1.31	0.97	0.00	653.34	0		2.85	8.82
54	2.00	0.31	0.47	0.00	653.70	0		0.67	8.25
55	2.00	0.31	0.47	0.00	558.75	0		0.73	8.95
56	2.00	4.18	4.06	0.20	601.46	0		9.51	10.71

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 42 ~ Roof & Penthouse	SURVEY NO. 00-TF-411
PURPOSE: BIN BLDG Verification Survey	RWP NO. N/A
	DATE: 11-28-00
	TIME: 1530

MAP/DRAWING



Bldg. not Posted.

Direct Scan of Smear locations
ALL <5000 dpm/100cm² β⁻
<100 dpm/100cm² α

~~Electra Bkg. = 3.~~ 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
Electra	5579-5580	03-01-01
	N A	

Completed by: (Signature) William G. Jones	HP# [redacted]	Date: 11-29-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HP# [redacted]	Date: 11-29-00
Counted by: (Print Name) CAROL Y. ROBINSON		
Reviewed/Approved by: (Signature) [signature]	HP# [redacted]	Date: 12-12-00
Reviewed/Approved by: (Print Name) Robert Miles		

ML-9620 (2-98) C546 93 G53 of 77

Survey No. [illegible]

RADIOLOGICAL SURVEY DATA SHEET (cont.)

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Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED			Floor of PH
2				
3				
4				Floor of PH
5				Walls of PH
6				
7				
8				
9				
10				
11				
12				Walls of PH
13				Ceiling of PH
14				
15				
16				Ceiling of PH
17				i/s Vent
18				i/s Vent
19				o/s Vent
20				o/s Vent
		N/A	N/A	

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

COMMENTS: Smears Scanned <1000 dpm/100cm² 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)

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Alpha/Beta Analysis

Batch ID: 00-TF-411 JONES 42-ROOF & PENTHOUSE (20) CYR

Batch File: Smear Unit 2 - 200011290831
Group: J
Device: Unit 2
Geometry: Swipe/Smear
Serial Number: 59544

Acquisition Date: 11/29/2000
Count Time (min): 1.5
Recalibration Date: 5/17/2001

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	22	0.00	0.12	5.15	5.15
2	117	0.00	0.03	1.29	2.58
3	129	0.00	0.03	1.29	2.58
4	115	0.00	0.21	9.02	6.82
5	17	0.00	0.03	1.29	2.58
6	135	0.00	0.09	3.86	4.46
7	35	0.00	0.09	3.86	4.46
8	22	0.00	0.15	6.44	5.76
9	70	2.04	4.10	2.57	3.64
10	31	0.00	0.15	6.44	5.76
11	55	2.04	4.10	5.14	5.15
12	105	0.00	0.09	3.86	4.46
13	19	0.00	0.15	6.44	5.76
14	31	0.00	0.12	5.15	5.15
15	70	0.00	0.12	5.15	5.15
16	13	0.00	0.15	6.44	5.76
17	130	0.00	0.09	3.86	4.46
18	89	0.00	0.06	2.58	3.64
19	31	0.00	0.03	1.29	2.58
20	108	0.00	0.06	2.58	3.64

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

	LL	UL	LCR	2SX	BKG
Region A:	0.5 -	18.6	0	0.0	6.88
Region B:	2.0 -	18.6	0	0.0	6.81
Region C:	40.0 -	2000	0	0.0	11.23

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
00-TF-411 JONES 40-80DF % PENTHOUSE (K1-K20)-DYS
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROTA.DAT
Count Data Filename: C:\DATA\SDATA6.DAT

SN	TIME	DPMA	DPMB	DPMC	tSIE	LUM	FLAG	DPM 1	2SIGMA
-1	10.00	6.88	6.81	11.23	480.83	12	E		0.00
0	2.00	861.49	830.37	0.00	552.51	1		7034.53	120.11
1	2.00	0.00	0.00	0.00	464.20	0		0.00	0.00
2	2.00	0.00	0.00	0.00	371.94	0		0.00	0.00
3	2.00	0.00	0.00	0.00	394.18	0		0.00	0.00
4	2.00	0.00	0.00	0.00	434.23	0		0.00	0.00
5	2.00	0.00	0.00	0.00	467.10	0		0.00	0.00
6	2.00	0.11	0.00	1.77	543.56	0		0.22	0.20
7	2.00	0.12	0.19	0.00	645.61	0		0.26	0.04
8	2.00	3.13	3.15	0.00	660.72	0		6.76	10.42
9	2.00	0.00	0.00	0.07	642.36	0		0.00	0.00
10	2.00	0.72	1.38	0.00	620.06	0		5.17	10.07
11	2.00	1.34	1.31	0.00	612.42	0		2.79	9.36
12	2.00	0.00	1.00	1.00	628.66	0		0.00	0.00
13	2.00	0.00	0.00	0.00	656.75	0		0.00	0.00
14	2.00	0.00	0.00	0.00	651.24	0		0.00	0.00
15	2.00	1.12	0.94	0.00	588.85	0		2.57	10.03
16	2.00	0.00	0.00	0.00	548.59	0		0.00	0.00
17	2.00	0.00	0.00	10.21	430.20	0		0.00	0.00
18	2.00	0.00	0.00	0.00	487.97	0		0.00	0.00
19	2.00	0.00	0.00	0.00	423.76	0		0.00	0.00
20	2.00	0.00	0.00	0.00	508.00	0		0.00	0.00

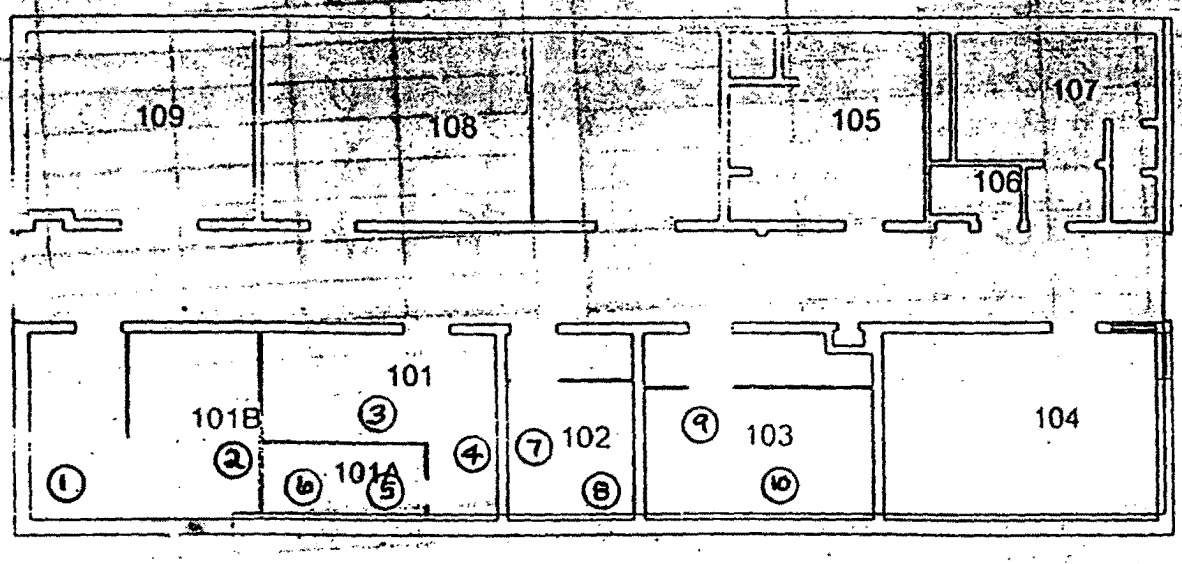
LOC

CS7693 GS6677

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) [redacted]	SURVEY NO. [redacted]
PURPOSE: BIN VERIFICATION Liquid Samples taken from floor drains [redacted]	RWP NO. N/A
	DATE: [redacted]
	TIME: [illegible]

MAP/DRAWING



(#) denotes location of water samples submitted to Envir. Lab

Electra BKG = 2.4 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 11-29-00
α/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Electra	5391 - 5409	05/06/01
	N A	

Completed by: (Signature) William G. Jones	HP# [redacted]	Date: 11-29-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HP# [redacted]	Date: 11-29-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature) [illegible]	HP# [redacted]	Date: 12-7-00
Reviewed/Approved by: (Print Name) GALEN TOMLINSON		

Survey No.

Page 1 of

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		Vials #1 & 2
2				Vials #3 & 4
3				Vials #5 & 6
4				Vials #7 & 8
5				Vials #9 & 10
		N	A	

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

COMMENTS: Smears Scanned < 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 (4-88)

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR006
Batch Ended: 11/29/2000 15:36
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-412 JONES BLDG.#42 (5) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activi		
		DPM	σ	flags	DPM	σ	flags
A2	1	0.00	2.21	<MDA	0.70	1.99	<MDA
A3	2	0.00	1.94	<MDA	0.34	1.75	<MDA
A4	3	0.00	2.13	<MDA	1.67	2.40	<MDA
B1	4	0.00	2.03	<MDA	0.00	1.65	<MDA
B2	5	0.00	1.90	<MDA	0.10	1.96	<MDA

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	5.20
Region B:	2.0 -	18.6	0	0.0	4.96
Region C:	40.0 -	2000	0	0.0	12.50

Quench Indicator: tSIE/AEC

00-TF-423 JONES BLDG.42 (30-23 S1-S5) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT2.DAT
Count Data Filename: C:\DATA\SDATA2.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	5.20	4.96	12.50	668.19	5	B		0.00
0	2.00	1003.57	965.24	1.50	531.72	0		2421.36	207.84
1	2.00	3.45	2.03	0.00	677.06	0		7.39	9.46
2	2.00	2.53	2.77	0.00	681.89	0		5.42	8.98
3	2.00	5.94	5.27	1.00	676.62	0		12.73	10.63
4	2.00	193.79	185.31	131.23	677.95	0		414.89	52.50
5	2.00	7.00	5.90	0.00	679.98	0		14.98	11.08

C 61 of 93 G 60 of 77

BWXT of Ohio, Inc.

ENVIRONMENTAL/ANALYTICAL SERVICES REQUEST FOR ANAL SIS

DATE:	SAMPLE MATRIX:	NUMBER OF SAMPLES:	PROJECT/FUNCTION:
11-30-00	LIQUID	10	TFV
COLLECTED BY:	**PRIMARY CONTACT:**	**EXTENSION:**	**RSDS # (if applicable):**
Jones, W	Tomlinson, G (L. Lamsa)	4585	00-TF-412 (att ed)
CHARGE NUMBER:	**SEND DATA TO:**	**MAIL STOP:**	**GAMMA SPEC. PERFORMED (YE NO):**
J00300	Jones, W.		N

ANALYSES REQUESTED (check):

- ☐ Qualitative (identify)
- ☐ Qualitative (identify + proportionality of isotopes)
- ☐ Quantitative (concentration)
- ☐ ^3H
- ☐ Gross α
- ☒ Characterize and Approve Water for Release
- ☐ Other _____

S.L. Howard 12/5/00

SUSPECTED CONTAMINANTS:

☐ ^3H ☐ Pu ☐ U ☐ Th ☐ Other _____

NOTE: Attach additional information (e.g. RSDS, collection data, and gamma spec. results) if app cable

LAB IDENTIFICATION	SAMPLE LOCATION	SAMPLE #	SAMPLE VOLUME/AREA	^3H RESULTS	α
0024183	BLDG. 42	1		<0.6 nCi/L	<0.60 dpm/mL
		2		<0.6 nCi/L	<0.60 dpm/mL
		3		<0.6 nCi/L	<0.60 dpm/mL
		4		<0.6 nCi/L	<0.60 dpm/mL
		5		<0.6 nCi/L	<0.60 dpm/mL
		6		<0.6 nCi/L	<0.60 dpm/mL
		7		<0.6 nCi/L	0.68 dpm/mL
		8		<0.6 nCi/L	<0.60 dpm/mL
		9		<1.1 nCi/L	<1.31 dpm/mL
		10		<1.3 nCi/L	<1.31 dpm/mL

COMMENTS:

Provide estimate of volume for release

~200 gallons per L. Lamsa 12/5/00 (way)

ANALYZED BY:	DATE:
J GAVIN	12-5-00

ML-5222 (5-00)

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C61 of 77

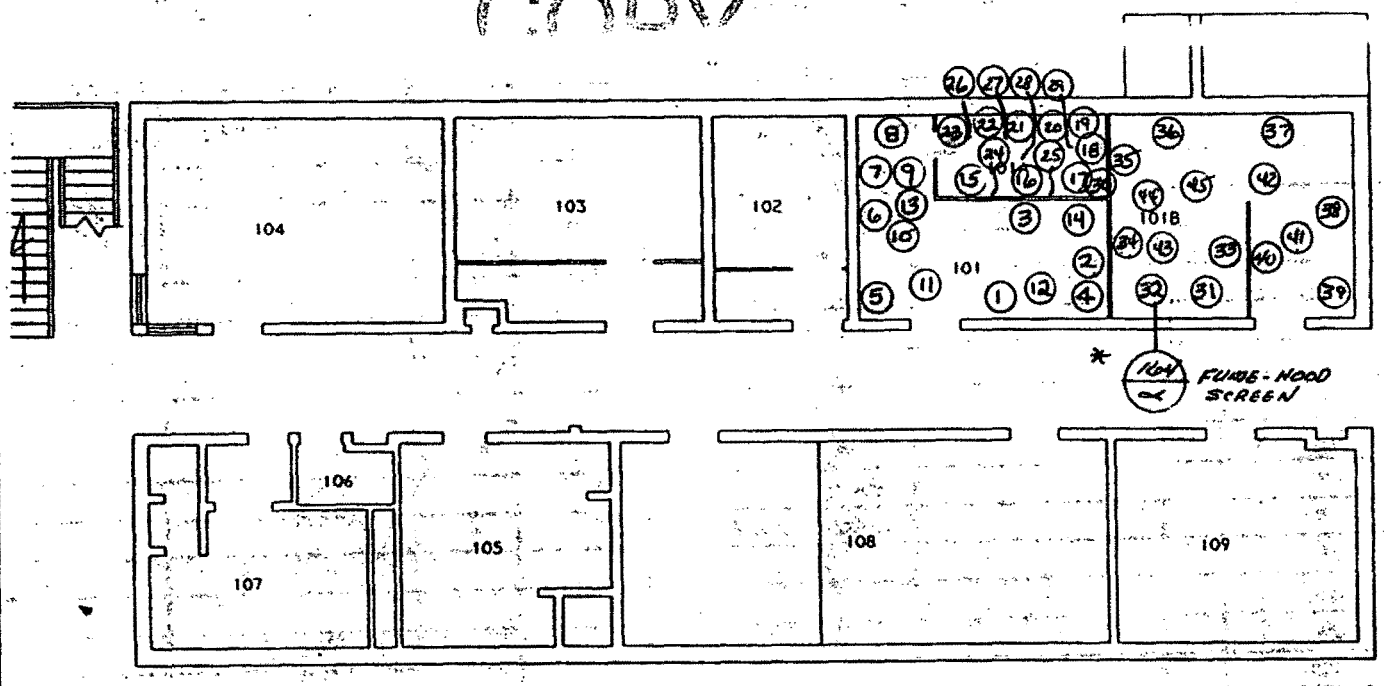
D-1 / D-46 P-3 T403

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 43 - Rms. 101 ~ 101A ~ 101B	SURVEY NO. 00-TF-413
PURPOSE: BLDG. BIN VERIFICATION	RWP NO. N/A
	DATE: 12-15-00
	TIME: 1000

MAP/DRAWING

COPY



Direct Scan @ Smear locations
<100 dpm/100 cm² α
<5000 dpm/100 cm² β-
unless otherwise noted.

BLDG #42
FIRST FLOOR
BLDG CODE:3042

Late Entry 12/20/00 - (WJ) AP7787
* Fume Hood re-survey RSDS 00-TF-413
12/20/00 : <100 dpm/100cm² α
<5000 dpm/100cm² β-
demonstrating Radon decay.

3/C (45)

Electra Bkg. = 3.8 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
Electra	5270-5290	02-22-01
	N A	

Completed by: (Signature) William G. Jones (WJ)	[redacted]	Date: 12-20-00
Completed by: (Print Name) William H. Jones		
Counted by: (Signature) Ray Hudak	[redacted]	Date: 12-18-00
Counted by: (Print Name) Ray HUDAK		
Reviewed/Approved by: (Signature) Galen Tomlinson	[redacted]	Date: 12-20-00
Reviewed/Approved by: (Print Name) GALEN TOMLINSON		

Survey No.
00-TF-413

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	(β/γ)	(Alpha)	(Tritium)	Comments
1	SEE ATTACHED			WALLS 101
2				
3				
4				
5				
6				
7				
8				WALLS 101
9				CEILING 101
10				
11				
12				CEILING 101
13				VENTS
14				
15				
16				
17				VENTS
18				WALLS 101A
19				
20				
21				
22				
23				
24				
25				WALLS 101A
26				CEILING 101A
27				
28				
29				CEILING 101A
30				VENT
31				SINK
32				FUMEHOOD
33				WALLS
34				WALLS
35				WALLS

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	(β/γ)	(Alpha)	(Tritium)	Comments
36	SEE ATTACHED			WALLS
37				
38				
39				
40				WALLS
41				CEILING
42				
43				
44				CEILING
45				VENT
		N	A	

COMMENTS: Smears Scanned: < 1000 dpm/100 cm² 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: T 00-TF-413 [45] JONES 12-18-00 RLH

Batch File: Smear Unit 3 - 200012181350
Group: C
Device: Unit 3
Geometry: Swipe/Smear
Serial Number: 15764-1

Acquisition Date: 12/18/00
Count Time (min): 1.5
Recalibration Date: 3/23/2001

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	42	0.00	0.02	1.48	2.97
2	146	0.00	0.02	1.48	2.97
3	71	2.46	4.97	7.40	6.64
4	129	0.00	0.02	1.48	2.97
5	36	0.00	0.06	4.45	5.14
6	89	0.00	0.00	0.00	0.00
7	133	2.47	4.96	2.95	4.20
8	121	0.00	0.02	1.48	2.97
9	147	0.00	0.07	5.94	5.94
10	23	0.00	0.04	2.97	4.20
11	99	0.00	0.04	2.97	4.20
12	117	0.00	0.02	1.48	2.97
13	62	0.00	0.11	8.90	7.27
14	97	0.00	0.02	1.48	2.97
15	21	0.00	0.00	0.00	0.00
16	7	0.00	0.02	1.48	2.97
17	50	0.00	0.00	0.00	0.00
18	45	0.00	0.04	2.97	4.20
19	33	0.00	0.00	0.00	0.00
20	118	0.00	0.04	2.97	4.20
21	27	0.00	0.02	1.48	2.97
22	35	0.00	0.04	2.97	4.20
23	24	0.00	0.04	2.97	4.20

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Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
24	11	0.00	0.06	4.45	5.14
25	47	2.48	4.96	0.00	0.11
26	41	0.00	0.02	1.48	2.97
27	126	0.00	0.06	4.45	5.14
28	134	0.00	0.02	1.48	2.97
29	28	0.00	0.09	7.42	6.64
30	135	0.00	0.00	0.00	0.00
31	29	0.00	0.04	2.97	4.20
32	49	0.00	0.02	1.48	2.97
33	68	0.00	0.07	5.94	5.94
34	29	0.00	0.00	0.00	0.00
35	80	0.00	0.04	2.97	4.20
36	93	0.00	0.02	1.48	2.97
37	101	0.00	0.04	2.97	4.20
38	30	0.00	0.04	2.97	4.20
39	75	0.00	0.02	1.48	2.97
40	40	2.48	4.96	1.46	2.97
41	56	0.00	0.04	2.97	4.20
42	124	0.00	0.00	0.00	0.00
43	54	0.00	0.02	1.48	2.97
44	42	0.00	0.06	4.45	5.14
45	129	0.00	0.02	1.48	2.97

Protocol #: 3 Name:Pw H3 #401393 19-Dec-2000 11:13
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=40.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
T 00-TF-413 [D1-D45] JONES 12-19-00 RLH
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On
Data/Application Drive & Path = c:\data

SAMP	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	A:2S%
-1	10.00	66	R	2.68	2.82	6.70	694	-	28.61
0	2.00	1		942.77	895.16	1.30	572.	2456.58	4.66
1	2.00	33		4.80	5.36	0.00	546.	12.94	115.9
2	2.00	59		3.93	3.09	0.00	626.	9.61	184.2
3	2.00	59		1.93	0.77	0.00	536.	5.27	309.8
4	2.00	16		17.92	14.68	0.00	606.	44.85	42.19
5	2.00	9		69.92	60.76	0.00	622.	171.68	18.86
6	2.00	8		67.95	55.82	0.00	647.	162.07	19.06
7	2.00	12		76.14	67.18	0.00	611.	189.34	18.53
8	2.00	70		0.00	0.62	0.00	441.	0.00	0.00
9	2.00	64		5.89	2.68	0.00	454.	18.22	152.0
10	2.00	29		22.91	20.01	0.00	584.	58.80	42.01
11	2.00	33		4.77	3.09	0.30	625.	11.68	116.3
12	2.00	22		1.25	0.28	0.00	570.	3.27	289.7
13	2.00	31		7.88	4.31	0.00	634.	19.06	81.57
14	2.00	19		28.41	22.06	0.00	583.	73.02	33.56
15	2.00	3		57.72	47.34	0.00	623.	141.56	19.78
16	2.00	9		44.97	36.51	0.00	631.	109.27	23.90
17	2.00	0		45.74	38.62	0.00	538.	124.45	21.63
18	2.00	3		50.41	41.72	0.00	596.	127.68	21.15
19	2.00	2		73.57	61.98	0.00	607.	183.78	17.19
20	2.00	82		0.00	0.00	0.00	640.	0.00	0.00
21	2.00	27		0.26	0.00	0.00	625.	0.62	1310.
22	2.00	48		0.00	0.00	0.00	586.	0.00	0.00
23	2.00	82		0.00	0.00	0.00	581.	0.00	0.00
24	2.00	18		0.00	0.00	0.00	585.	0.00	0.00
25	2.00	30		1.22	1.53	0.00	595.	3.10	319.3
26	2.00	39		1.66	1.93	0.00	651.	3.96	271.1
27	2.00	16		6.23	4.45	0.00	644.	14.91	80.73
28	2.00	25		2.22	0.83	0.00	571.	5.80	187.0
29	2.00	27		1.72	0.75	0.00	554.	4.59	234.2
30	2.00	10		11.72	7.16	0.00	526.	32.43	51.38
31	2.00	22		3.22	2.48	0.00	531.	8.86	136.3
32	2.00	20		1.75	0.26	0.00	591.	4.47	214.8
33	2.00	41		2.13	2.13	0.00	596.	5.39	227.4
34	2.00	4		42.02	32.52	0.00	604.	105.36	23.42
35	2.00	45		0.66	0.87	0.00	568.	1.72	650.8
36	2.00	33		4.13	1.54	0.00	616.	10.21	126.8
37	2.00	65		0.32	0.82	0.80	591.	0.81	1796.
38	2.00	56		3.56	2.55	0.00	598.	9.00	184.7
39	2.00	100		0.00	0.00	2.30	608.	0.00	0.00
40	2.00	40		5.18	4.39	0.00	616.	12.81	119.0
41	2.00	40		0.69	0.16	0.00	535.	1.88	586.6
42	2.00	54		1.54	0.00	0.00	622.	3.78	347.6
43	2.00	84		0.00	0.00	0.00	616.	0.00	0.00

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00-TF-413

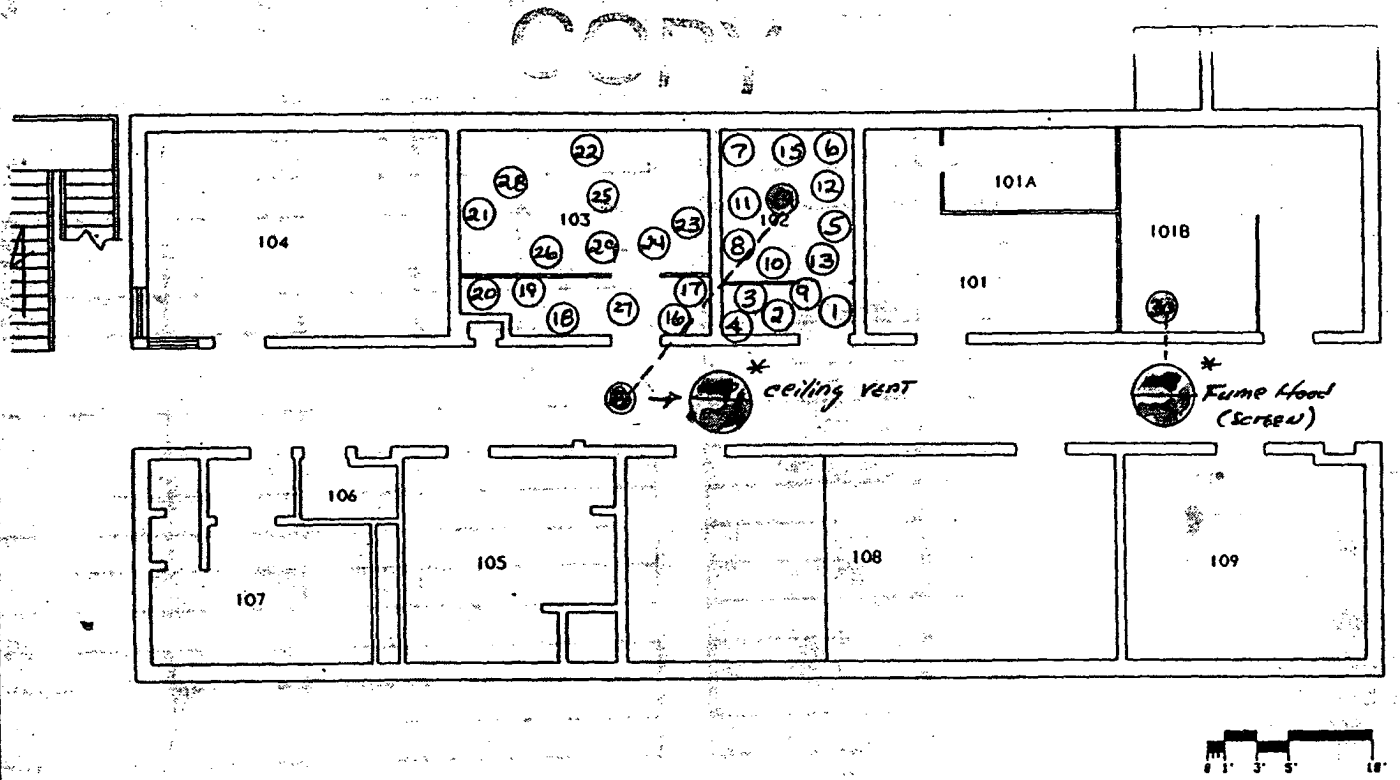
SAMP	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	A:2S%
44	2.00	58		7.54	3.60	0.00	618.	18.61	114.5
45	2.00	80		0.00	1.96	0.00	551.	0.00	0.00

LI-LSO 30-23 P.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 42 - Rms 102/103	SURVEY NO. 00-TF-414
PURPOSE: BLDG. BIN VERIFICATION	RWP NO. N/A
	DATE: 12-17-00
	TIME: 1430

MAP/DRAWING



BLDG #42
FIRST FLOOR
BLDG CODE:3042

* Late Entry 12/20/00 - HP 7787
Fume Hood & Ceiling Vent re-survey RSDS 00-TF-443
12/20/00: <100 dpm/100cm² α
<5000 dpm/100cm² β-
demonstrating Radon decay.

Direct Scan of Smear locations
<100 dpm/100cm² α
<5000 dpm/100cm² β-
unless otherwise noted.

Electra Bkg. = 3.8 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
Electra	5435-5436	04-30-01

Completed by: (Signature) William A. Jones	HP# [redacted]	Date: 12-20-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Carol Y. Robinson	HP# [redacted]	Date: 12-19-00
Counted by: (Print Name) Carol Y. Robinson		
Reviewed/Approved by: (Signature)	HP# [redacted]	Date: 12-20-00
Reviewed/Approved by: (Print Name) GALEN TOMLINSON		

ML-9620 (2-98) C69-693 G6806 77

Survey No. 00-TF-44

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination					Removable Contamination				
Swipes (dpm/100cm²)					Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments	Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		WALLS - 102					
2									
3									
4									
5									
6									
7									
8				WALLS - 102					
9				CEILING - 102					
10									
11									
12				CEILING - 102					
13				VENT			N	A	
14				VENT					
15				VENT					
16				WALLS - 103					
17									
18									
19									
20									
21									
22									
23				WALLS - 103					
24				CEILING - 102					
25									
26									
27				CEILING - 102					
28				VENT					
29				VENT					
30				FUME-HOOD - 101B					
			A						
		N							

COMMENTS: Smears Scanned: <1000 dpm/100cm² 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)

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR150
Batch Ended: 12/19/2000 14:57
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-414 JONES 42-102 & 103 (30) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activi		
		DPM	σ	flags	DPM	σ	flags
A2	1	0.00	2.20	<MDA	0.00	1.42	<MDA
A3	2	0.00	1.94	<MDA	0.34	1.75	<MDA
A4	3	0.00	2.11	<MDA	0.00	1.46	<MDA
B1	4	1.27	2.04	<MDA	2.80	2.93	<MDA
B2	5	0.00	1.89	<MDA	0.00	1.48	<MDA
B3	6	0.00	2.03	<MDA	0.00	1.59	<MDA
B4	7	1.36	1.93	<MDA	2.65	2.71	<MDA
C1	8	1.25	1.72	<MDA	1.97	2.29	<MDA
C2	9	0.00	1.78	<MDA	0.00	1.25	<MDA
C3	10	0.00	1.98	<MDA	0.00	1.40	<MDA
C4	11	0.00	1.78	<MDA	0.26	1.67	<MDA
D1	12	0.00	2.02	<MDA	0.00	1.48	<MDA
D2	13	0.00	2.08	<MDA	0.37	1.72	<MDA
D3	14	0.00	2.12	<MDA	0.00	1.57	<MDA
D4	15	0.00	2.01	<MDA	0.21	1.76	<MDA
A2	16	0.00	2.21	<MDA	0.70	1.99	<MDA
A3	17	1.46	1.93	<MDA	0.00	1.31	<MDA
A4	18	0.00	2.12	<MDA	0.32	1.99	<MDA
B1	19	0.00	2.03	<MDA	0.10	2.17	<MDA
B2	20	0.00	1.90	<MDA	1.38	2.34	<MDA
B3	21	0.00	2.04	<MDA	0.05	2.13	<MDA
B4	22	0.00	1.91	<MDA	0.00	1.48	<MDA
C1	23	0.00	1.71	<MDA	1.04	2.01	<MDA
C2	24	0.00	1.81	<MDA	1.05	1.96	<MDA
C3	25	0.00	1.99	<MDA	0.24	1.87	<MDA
C4	26	0.00	1.83	<MDA	3.59	2.55	<AL
D1	27	0.00	2.05	<MDA	1.30	2.37	<MDA

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR150
Batch Ended: 12/19/2000 14:57
Cal. Due Date: 5/22/2001
Serial Number: 26966-3

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

Batch ID: 00-TF-414 JONES 42-102 & 103 (30) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activi		
		DPM	σ	flags	DPM	σ	flags
D2	28	0.00	2.09	<MDA	1.52	2.07	<MDA
D3	29	1.51	2.16	<MDA	4.03	3.18	<AL
D4	30	1.40	2.01	<MDA	0.09	1.76	<MDA

G71 of 77 C34 of 93

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19 Dec 2000 17:37 TRI-CARB - 1.09 Page #1
Protocol #: 1 PW H3 20CC 407906 User : 5681

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL3 Quench Set: SMVIAL3
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	18.6	0	0.0	8.38
Region B:	2.0	18.6	0	0.0	7.66
Region C:	40.0	2000	0	0.0	12.40

Ext Std Terminator: Count
00-TF-414 JONES 42-102/103 (30-23 L1-L30) 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
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2SIGMA	CPMC
-1	10.00	8.38	7.66	1	B	615.74		0.000	12.40
0	2.00	794.41	735.55	0		521.83	3399.52	246.400	0.00
1	2.00	0.12	0.84	0		627.69	0.30	11.270	0.00
2	2.00	0.00	0.00	0		606.15	0.00	0.000	0.00
3	2.00	0.00	0.00	0		619.08	0.00	0.000	0.00
4	2.00	3.12	3.84	0		615.40	10.32	16.988	0.00
5	2.00	0.00	0.00	0		317.12	0.00	0.000	0.00
6	2.00	0.00	0.00	0		261.16	0.00	0.000	0.00
7	2.00	0.74	0.21	0		582.73	17.57	110.724	0.00
8	2.00	0.00	0.00	0		603.76	0.00	0.000	0.00
9	2.00	1.94	0.62	0		644.87	4.00	10.104	0.00
10	2.00	0.00	0.00	0		575.29	0.00	0.000	0.00
11	2.00	7.52	1.72	0		560.00	85.50	67.572	0.00
12	2.00	8.52	3.61	0		561.30	102.66	73.660	0.00
13	2.00	0.96	1.51	0		539.95	5.85	28.542	0.00
14	2.00	6.34	3.70	0		518.94	25.90	23.438	0.00
15	2.00	0.00	0.34	0		537.17	0.00	0.000	0.00
16	2.00	6.13	1.16	0		580.07	295.18	274.274	1.60
17	2.00	11.20	7.47	0		574.50	343.79	200.963	0.00
18	2.00	2.76	2.97	0		587.68	33.92	62.221	0.00
19	2.00	0.12	0.66	0		549.56	0.96	35.309	0.00
20	2.00	0.00	0.34	0		595.20	0.00	0.000	0.00
21	2.00	0.00	0.00	0		569.45	0.00	0.000	0.00
22	2.00	0.00	0.00	0		597.03	0.00	0.000	0.00
23	2.00	1.06	1.49	0		605.43	4.75	21.159	0.00
24	2.00	0.12	0.00	0		416.62	0.31	11.537	0.00
25	2.00	0.36	0.00	0		473.61	0.86	10.923	0.00
26	2.00	1.12	1.84	0		481.58	2.89	12.205	1.10
27	2.00	3.15	2.54	0		630.50	7.46	12.167	0.00
28	2.00	0.00	0.00	0		427.01	0.00	0.000	0.00
29	2.00	0.89	0.00	0		505.57	3.00	15.818	0.00
30	2.00	0.60	0.00	0		547.89	4.44	34.403	0.00

G7206 77 C7306 93

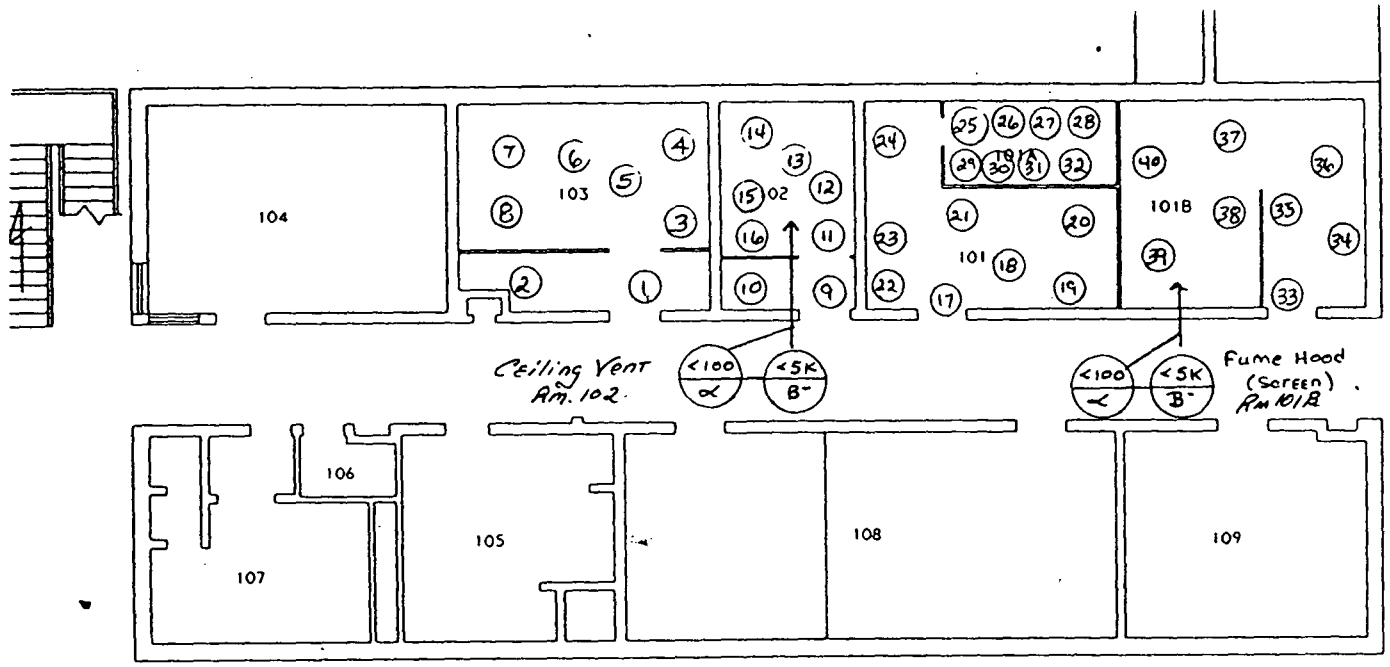
C1-C40 T-212 P2

RADIOLOGICAL SURVEY DATA SHEET

COPY

LOCATION: (BLDG./AREA/ROOM) 42 ~ Rms. 101/101A/101B/102/103	SURVEY NO. 00-TF-443
PURPOSE: BLDG. BIN VERIFICATION (Floor Surfaces Only) Re-survey Condition of 101B Fume Hood & 102 Ceiling Vent	RWP NO. N/A
	DATE: 12-20-00
	TIME: 1300

MAP/DRAWING



Direct Scan of Fume Hood Screen (Rm 101B) and Ceiling Fan/Vent (Rm. 102)
All < 100 dpm/100cm² α
< 5000 dpm/100cm² β-
Ref. RSDS. Nos. 00-TF-414
00-TF-413

BLDG #42
FIRST FLOOR
BLDG CODE:3042

Floor Surfaces Loose Contam. Survey Only ~ directs not performed due to standing water in areas.

Electra Bkg. = 2.5 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
Electra	5385-5386	05/28/01
N	A	

Completed by: (Signature) William A. Jones	HP# [redacted]	Date: 12-22-00
Completed by: (Print Name) William A. Jones		
Counted by: (Signature) Juanita Collins	[redacted]	Date: 12-21-00
Counted by: (Print Name) J. Collins		
Reviewed/Approved by: (Signature) Dalen Tomlinson	HP# [redacted]	Date: 1-16-01
Reviewed/Approved by: (Print Name) DALEN TOMLINSON		

ML-9620 (2-98) C74 of 93 G73 of 77

Survey No.
00-TF-443

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		FLOOR
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				FLOOR

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	SEE	ATTACHED		FLOOR
37				
38				
39				
40				FLOOR
	N	A		

COMMENTS: Direct Scan of Smears: <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

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR000
Batch Ended: 12/21/2000 9:14
Recalibration Date: 6/14/2001
Serial Number: 64575

Batch ID: JONES 00-TF-443 [40] JC

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.0	3.5	<MDA	4.1	2.7	<AL
A2	2	1.9	3.5	<MDA	5.6	2.9	<AL
A3	3	0.0	2.0	<MDA	0.3	1.5	<MDA
A4	4	0.0	3.3	<MDA	0.0	1.3	<MDA
B1	5	0.0	3.7	<MDA	0.3	1.6	<MDA
B2	6	0.0	3.8	<MDA	0.7	2.1	<MDA
B3	7	1.6	3.0	<MDA	2.7	2.0	<AL
B4	8	0.0	1.9	<MDA	0.0	1.5	<MDA
C1	9	0.0	3.6	<MDA	0.3	1.6	<MDA
C2	10	0.5	2.4	<MDA	0.3	1.6	<MDA
C3	11	0.0	3.2	<MDA	0.6	1.3	<MDA
C4	12	0.0	3.2	<MDA	0.6	1.3	<MDA
D1	13	0.0	3.7	<MDA	0.6	1.4	<MDA
D2	14	0.0	3.6	<MDA	0.3	1.6	<MDA
D3	15	0.0	3.3	<MDA	0.6	1.3	<MDA
D4	16	0.0	3.4	<MDA	2.1	1.8	<AL
A1	17	0.0	3.5	<MDA	2.9	2.4	<AL
A2	18	0.0	3.5	<MDA	1.9	1.9	<AL
A3	19	0.0	2.0	<MDA	0.0	1.5	<MDA
A4	20	0.0	3.3	<MDA	0.0	1.3	<MDA
B1	21	0.0	3.7	<MDA	0.3	1.6	<MDA
B2	22	0.0	3.8	<MDA	0.0	1.7	<MDA
B3	23	0.0	3.0	<MDA	0.6	1.2	<MDA
B4	24	0.0	1.9	<MDA	0.0	1.5	<MDA
C1	25	0.0	3.6	<MDA	0.0	1.6	<MDA
C2	26	0.0	2.4	<MDA	0.4	1.6	<MDA
C3	27	0.0	3.2	<MDA	1.7	1.7	<AL
C4	28	0.0	3.2	<MDA	2.9	2.1	<AL
D1	29	0.0	3.7	<MDA	0.6	1.4	<MDA
D2	30	0.0	3.6	<MDA	4.1	2.7	<AL
D3	31	0.0	3.3	<MDA	1.8	1.7	<AL
D4	32	0.0	3.4	<MDA	0.9	1.3	<MDA

Alpha/Beta Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR000
Batch Ended: 12/21/2000 9:14
Recalibration Date: 6/14/2001
Serial Number: 64575

Batch ID: JONES 00-TF-443 [40] JC

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	33	0.0	3.5	<MDA	0.3	1.6	<MDA
A2	34	0.0	3.5	<MDA	0.6	1.4	<MDA
A3	35	0.0	2.0	<MDA	3.9	2.5	<AL
A4	36	1.8	3.3	<MDA	0.0	1.3	<MDA
B1	37	0.0	3.7	<MDA	0.3	1.6	<MDA
B2	38	0.0	3.8	<MDA	0.0	1.7	<MDA
B3	39	1.7	3.0	<MDA	0.4	1.2	<MDA
B4	40	0.0	1.9	<MDA	0.0	1.5	<MDA

Protocol #: 2 Name:PW H3 #401388 21-Dec-2000 11:28
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=40.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
00-TF-443 JONES BLDG.42 (C1-C40) CYR
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On
Data/Application Drive & Path = c:\data

SAMP	TIME	CPMA	CPMB	CPMC	FLAG	LUM	tSIE	DPM1	A:2S%
-1	10.00	6.37	5.65	4.60	B	8	708.		25.06
0	2.00	908.32	879.80	3.90		0	564.	2327.95	4.73
1	2.00	0.00	0.00	2.40		0	439.	0.00	0.00
2	2.00	0.00	0.00	0.00		0	534.	0.00	0.00
3	2.00	0.00	0.00	0.90		22	513.	0.00	0.00
4	2.00	0.12	0.21	0.00		0	517.	0.33	3303.
5	2.00	0.00	0.00	0.00		31	585.	0.00	0.00
6	2.00	0.00	0.00	0.00		0	463.	0.00	0.00
7	2.00	0.00	0.00	0.40		0	580.	0.00	0.00
8	2.00	5.57	5.41	37.31		8	550.	14.52	99.51
9	2.00	0.00	0.24	0.40		0	504.	0.00	0.00
10	2.00	0.13	0.85	0.00		0	370.	0.46	3043.
11	2.00	0.00	0.00	0.00		0	340.	0.00	0.00
12	2.00	0.00	0.00	0.00		0	561.	0.00	0.00
13	2.00	0.00	0.00	3.90		0	483.	0.00	0.00
14	2.00	0.00	0.00	0.00		0	472.	0.00	0.00
15	2.00	0.00	0.00	0.40		0	535.	0.00	0.00
16	2.00	0.00	0.00	0.00		0	474.	0.00	0.00
17	2.00	1.32	2.16	0.00		7	331.	5.24	340.2
18	2.00	0.00	0.00	0.90		0	349.	0.00	0.00
19	2.00	0.00	0.00	0.00		22	532.	0.00	0.00
20	2.00	0.00	0.00	0.00		54	544.	0.00	0.00
21	2.00	0.00	0.00	0.90		0	511.	0.00	0.00
22	2.00	0.00	0.00	1.90		0	551.	0.00	0.00
23	2.00	0.00	0.00	1.90		16	554.	0.00	0.00
24	2.00	0.00	0.00	0.00		0	592.	0.00	0.00
25	2.00	0.00	0.00	0.00		18	515.	0.00	0.00
26	2.00	0.00	0.00	0.00		0	487.	0.00	0.00
27	2.00	0.00	0.00	1.40		0	554.	0.00	0.00
28	2.00	0.00	0.00	0.01		0	590.	0.00	0.00
29	2.00	0.00	0.00	0.40		0	500.	0.00	0.00
30	2.00	0.00	0.00	1.90		0	535.	0.00	0.00
31	2.00	0.00	0.00	0.00		0	545.	0.00	0.00
32	2.00	0.00	0.00	0.00		18	565.	0.00	0.00
33	2.00	0.00	0.00	0.00		100	390.	0.00	0.00
34	2.00	0.13	0.80	0.00		0	465.	0.38	3043.
35	2.00	0.00	0.00	0.00		0	409.	0.00	0.00
36	2.00	0.00	0.00	1.90		18	503.	0.00	0.00
37	2.00	0.10	0.96	0.00		8	490.	0.27	4331.
38	2.00	0.00	0.58	0.00		0	568.	0.00	0.00
39	2.00	0.00	0.00	1.40		27	224.	0.00	0.00
40	2.00	0.00	0.00	2.90		24	508.	0.00	0.00

RSDSs After Demolition

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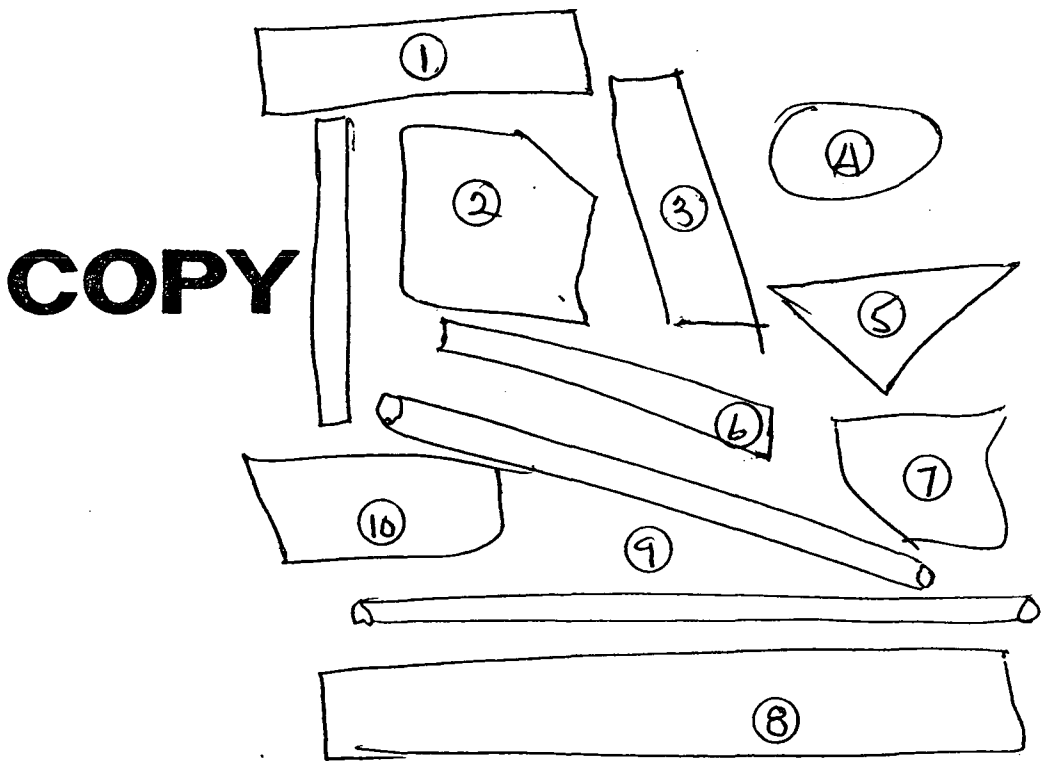
RADIOLOGICAL SURVEY DATA SHEET

Pg. 1 of

LOCATION: (BLDG./AREA/ROOM) 42 / O/S	SURVEY NO. 02-TF-1080
PURPOSE: SCRAP PILE CONFIRMATION	RWP NO. N/A
	DATE: 6-11-02
	TIME: 1400

MAP/DRAWING

DIRECT FRISK READINGS INDICATE: <100 α <5K β



COPY

INTEGRATED COUNT PERFORMED IF AUDIBLE DETECTED

LEGEND: # = mrem/hr (γ) whole body

= mrem/hr neutron

= swipe number

= air sample number

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

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
ELECTRA	5607 / 5608	6-5-9-03
BICRON	3815 / 3846	1-7-03

Completed by: (Signature) PG Radley / D.J. Harley	HP [redacted]	Date: 6-11-02
Completed by: (Print Name) PG RADLEY / D.J. HARDEY		
Counted by: (Signature) See	HP #	Date:
Counted by: (Print Name) Attached		
Reviewed/Approved by: (Signature) RM Coblentz	HP # [redacted]	Date: 6-13-02
Reviewed/Approved by: (Print Name) RM Coblentz		

ML-9620 (2-98)

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Survey No. 02-TF-1080

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		SCRAP FILE
2	↓	↓	↓	↓
3				
4				
5				
6				
7				
8				
9				
10				
			N/A	

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		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-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR125
Batch Ended: 6/11/02 9:35
Cal. Due Date: 4/25/03
Serial Number: 26966-3
Batch ID: 02-TF-~~1004~~ 1080 HARVEY(10) BSB
PGR 6-12-01

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.06		0.21	1.81	
A2	2	0.00	1.95		0.41	1.70	
A3	3	0.00	2.13		0.00	1.24	
A4	4	1.47	2.02		1.38	2.05	
B1	5	1.56	2.06		2.63	2.50	
B2	6	1.31	2.00		0.00	1.19	
B3	7	0.00	2.13		2.65	2.57	
B4	8	1.45	2.00		0.00	1.17	
C1	9	5.70	3.63		3.80	2.80	
C2	10	0.00	1.86		0.53	1.64	

PGR PGR

BSBrown

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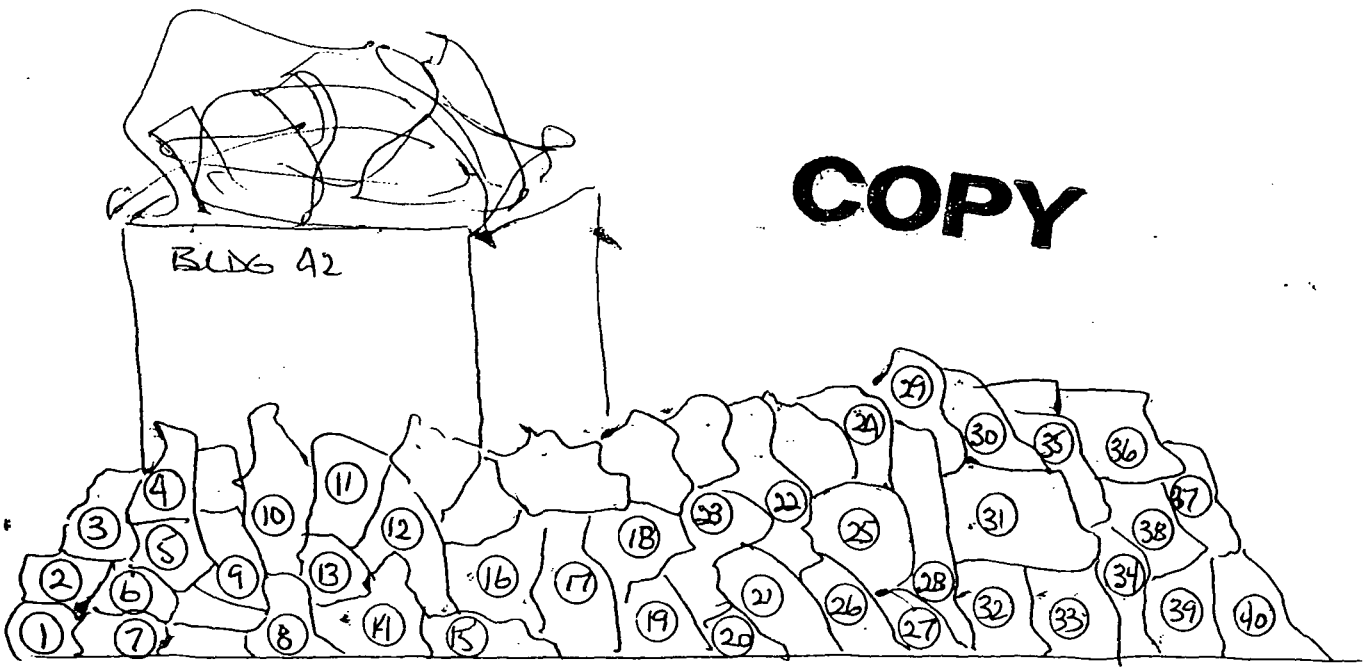
CountLab Results - 02-TF-10.pdf

LOCATION: (BLDG./AREA/ROOM) 42/ O/S	SURVEY NO. 02-TF-1252
PURPOSE: DEBRIS PILE CHARACTERIZATION	RWP NO. N/A
	DATE: 7-29-02
	TIME: 1530

MAP/DRAWING

NOTE: INTEGRATED COUNT PERFORMED IF α AUDIBLE DETECTED.
DIRECT FRISK RESULTS INDICATE: <100/α <5K/β



COPY

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
BICRON	3815/3846	1-7-03
ELECTRA	5347/5319	5-22-03
	N	
	A	

Completed by: (Signature) PG Radley / KB Long	HP# [redacted]	Date: 7-29-02
Completed by: (Print Name) PG RADLEY / KB LONG		
Counted by: (Signature) SEE	HP#	Date:
Counted by: (Print Name) ATTACHED		
Reviewed/Approved by: (Signature) RMCoblentz	HP# [redacted]	Date: 8-13-02
Reviewed/Approved by: (Print Name) RMCoblentz		

ML-9620 (2-98)

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RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		DEBRIS PILE
2	↓	↓	↓	↓
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35	↓	↓	↓	↓

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	SEE	ATTACHED		DEBRIS PILE
37	↓	↓	↓	↓
38				
39				
40	↓	↓	↓	↓
		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:	Smear Unit 1 - 200207291637	**Count Date:**	7/29/2002
Group:	G	**Count Minutes:**	1.5
Serial Number:	78218-1	**Count Mode:**	Simultaneous
Batch ID:	02-TF-1252 RADLEY(40) BSB	**Operating Volts:**	1410
Selected Geometry:	Swipe/Smear	**Cal Due Dates:**	6/19/2004

Efficiency (%)				Spillover (%)			
Alpha:	34.73	±	0.13	**Alpha to Beta:**	11.39	±	0.00
Beta:	46.13	±	0.13	**Beta to Alpha:**	0.07	±	0.00

Sample ID	Carrier ID	Alpha (dpm)	σ	Beta (dpm)	σ
1	32	0.00	0.00	2.74	2.04
2	22	0.00	0.00	0.00	0.00
3	11	2.19	1.92	0.00	0.16
4	3	2.19	1.92	1.21	1.45
5	59	0.00	0.00	1.37	1.45
6	57	0.00	0.00	4.11	2.50
7	51	0.00	0.00	1.37	1.45
8	1	0.00	0.00	1.37	1.45
9	57	0.00	0.00	1.37	1.45
10	25	0.00	0.00	0.00	0.00
11	56	2.18	1.92	6.69	3.24
12	49	0.00	0.00	2.74	2.04
13	99	0.00	0.00	0.00	0.00
14	12	0.00	0.00	0.00	0.00
15	18	2.19	1.92	0.00	0.16
16	48	0.00	0.00	0.00	0.00
17	47	0.00	0.00	0.00	0.00
18	53	0.00	0.00	2.74	2.04
19	60	2.18	1.92	2.58	2.05
20	80	0.00	0.00	2.74	2.04
21	32	0.00	0.00	1.37	1.45
22	75	0.00	0.00	1.37	1.45
23	46	0.00	0.00	1.37	1.45
24	96	0.00	0.00	4.11	2.50
25	87	0.00	0.00	1.37	1.45
26	35	2.18	1.92	2.58	2.05
27	2	0.00	0.00	1.37	1.45
28	43	0.00	0.00	0.00	0.00
29	100	2.18	1.92	2.58	2.05
30	44	4.37	2.72	3.80	2.51
31	80	0.00	0.00	1.37	1.45
32	98	0.00	0.00	0.00	0.00
33	83	0.00	0.00	0.00	0.00
34	41	2.19	1.92	1.21	1.45
35	86	0.00	0.00	2.74	2.04
36	61	0.00	0.00	0.00	0.00
37	45	0.00	0.00	0.00	0.00

B Smith-Brown

PGR

PGR

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02-TF-1252

Alpha/Beta Analysis

Efficiency (%)				Spillover (%)			
Alpha:	34.73	±	0.13	Alpha to Beta:	11.39	±	0.00
Beta:	46.13	±	0.13	Beta to Alpha:	0.07	±	0.00

Sample ID	Carrier ID	Alpha (dpm)	σ	Beta (dpm)	σ
38	29	2.18	1.92	2.58	2.05
39	20	0.00	0.00	0.00	0.00
40	36	0.00	0.00	1.37	1.45

✓ PGR ✓ PGR

Batch ID: 02-TF-1252 RADLEY(40) BSB

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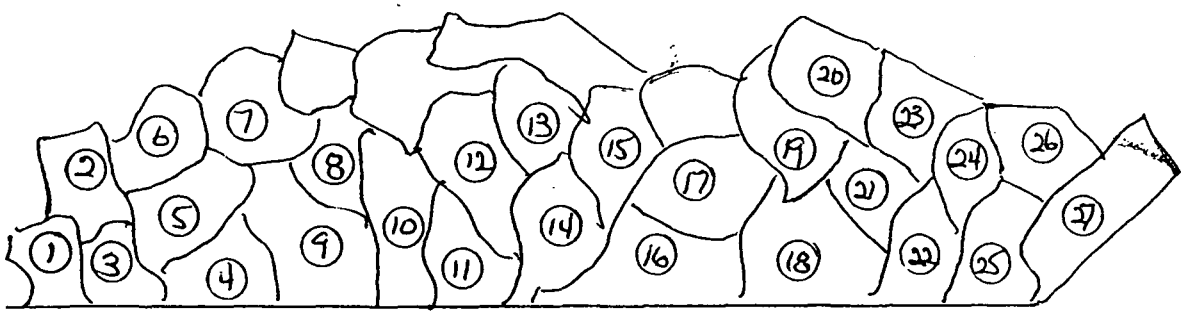
LOCATION: (BLDG./AREA/ROOM) 42/ 0/S	SURVEY NO. 02-TF-1255
PURPOSE: DEBRIS PILE CHARACTERIZATION	RWP NO. N/A
	DATE: 7-31-02
	TIME: 0830

MAP/DRAWING

NOTE: INTEGRATED COUNT PERFORMED IF α AUDIBLE DETECTED.

DIRECT FRISK RESULTS INDICATE: <100/α <5K/β



COPY

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
BICRON	3815/3846	1-7-03
ELECTRA	5607/5608	5-9-03

Completed by: (Signature) PG Radley / DJ Harvey	HP: [redacted]	Date: 7-31-02
Completed by: (Print Name) PG RADLEY / DJ HARVEY		
Counted by: (Signature) SEE	HPs	Date:
Counted by: (Print Name) ATTACHED		
Reviewed/Approved by: (Signature) RM Cablente	[redacted]	Date: 8-1-02
Reviewed/Approved by: (Print Name) RM Cablente		

ML-9620 (2-98)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTA	CHED	DEBRIS PILE
2	↓	↓	↓	↓
3	↓	↓	↓	↓
4	↓	↓	↓	↓
5	↓	↓	↓	↓
6	↓	↓	↓	↓
7	↓	↓	↓	↓
8	↓	↓	↓	↓
9	↓	↓	↓	↓
10	↓	↓	↓	↓
11	↓	↓	↓	↓
12	↓	↓	↓	↓
13	↓	↓	↓	↓
14	↓	↓	↓	↓
15	↓	↓	↓	↓
16	↓	↓	↓	↓
17	↓	↓	↓	↓
18	↓	↓	↓	↓
19	↓	↓	↓	↓
20	↓	↓	↓	↓
21	↓	↓	↓	↓
22	↓	↓	↓	↓
23	↓	↓	↓	↓
24	↓	↓	↓	↓
25	↓	↓	↓	↓
26	↓	↓	↓	↓
27	↓	↓	↓	↓
			N	
			A	

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

COMMENTS: N/A

NOTES:
1. See MD-80036 f0002 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)

C8806 93

Alpha/Beta Analysis

Batch ID:	Smear Unit 1 - 200207311046	**Count Date:**	7/31/2002
Group:	G	**Count Minutes:**	1.5
Serial Number:	78218-1	**Count Mode:**	Simultaneous
Batch ID:	02-TF-1255 RADLEY(27) BSB	**Operating Volts:**	1410
Selected Geometry:	Swipe/Smear	**Cal Due Dates:**	6/19/2004

Efficiency (%)				Spillover (%)			
Alpha:	34.73	±	0.13	**Alpha to Beta:**	11.39	±	0.00
Beta:	46.13	±	0.13	**Beta to Alpha:**	0.07	±	0.00

Sample ID	Carrier ID	Alpha (dpm)	σ	Beta (dpm)	σ
1	80	0.00	0.00	5.48	2.89
2	32	2.19	1.92	1.21	1.45
3	75	0.00	0.00	1.37	1.45
4	46	0.00	0.00	0.00	0.00
5	96	0.00	0.00	1.37	1.45
6	87	0.00	0.00	1.37	1.45
7	35	0.00	0.00	4.11	2.50
8	2	0.00	0.00	1.37	1.45
9	43	0.00	0.00	5.48	2.89
10	100	2.19	1.92	1.21	1.45
11	44	0.00	0.00	2.74	2.04
12	80	2.19	1.92	0.00	0.16
13	98	2.19	1.92	1.21	1.45
14	83	2.19	1.92	1.21	1.45
15	41	2.18	1.92	3.95	2.51
16	86	4.37	2.72	2.43	2.06
17	61	0.00	0.00	4.11	2.50
18	45	2.18	1.92	2.58	2.05
19	29	6.56	3.33	0.90	1.47
20	20	0.00	0.00	0.00	0.00
21	74	0.00	0.00	0.00	0.00
22	65	4.36	2.72	7.91	3.55
23	65	0.00	0.00	4.11	2.50
24	68	2.18	1.92	3.95	2.51
25	39	2.18	1.92	5.32	2.90
26	23	0.00	0.00	0.00	0.00
27	62	0.00	0.00	5.48	2.89
		PGR		PGR	

B Smith Brown

Batch ID: 02-TF-1255 RADLEY(27) BSB

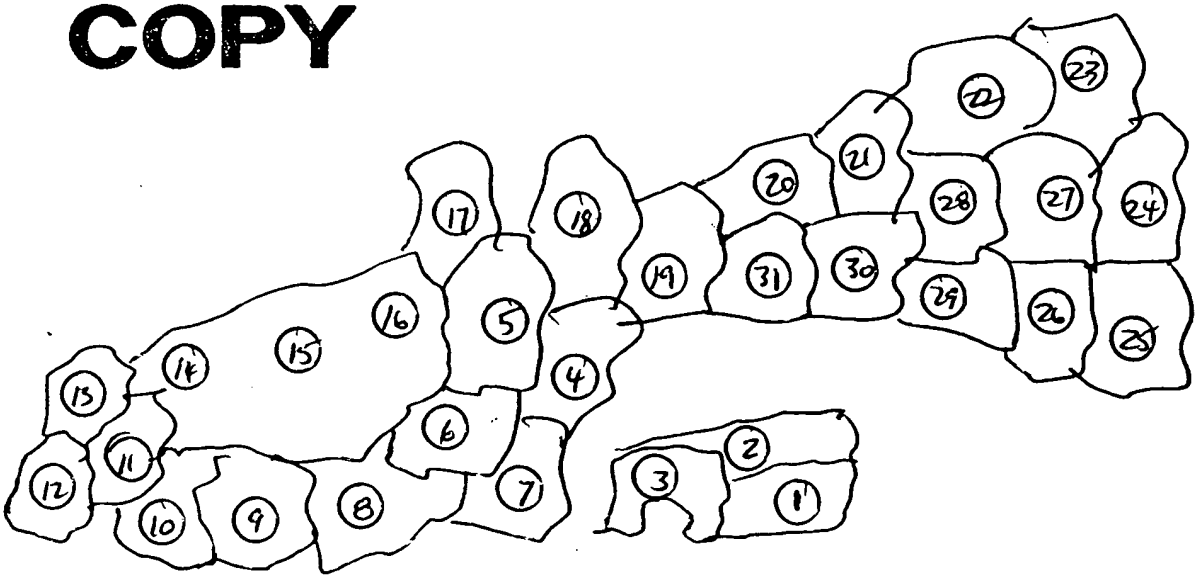
C89-693

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 42 BUILDING SLAB	SURVEY NO 02-TF-1261
PURPOSE: CONCRETE PILE SURVEY FOR RELEASE TO WASTEMANAGEMENT JOB COVERAGE	RWP NO. N/A
	DATE 8-8-2002
	TIME 1530

MAP / DRAWING

COPY



DJH 8-8-02 DJH 8-8-02
~~#58-59 ON SHEAR~~, ~~#60-61 ON BACK HOE BUCKET~~

- NOTE: BICRON FIDLER USED FOR INDICATION ONLY. RESULTS WERE NON-DETECTABLE.
- INTEGRATED READING TAKEN IF AUDIBLE ALPHA DETECTED ALL RESULTS: <100 dpm/100cm2 ALPHA AND <5K dpm/100cm2 BETA NO AUDIBLE ~~ALPHA~~ DETECTED 8-8-02

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · - = radiological boundary

△# = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
ELECTRA	5599/5600	7-25-2003
BICRON	3815/3846	1-7-2003
	N/A	

Completed by: (Signature)	HP# [redacted]	Date: ~~7-12-2002~~ 8-8-2002
Completed by: (Print Name) DANIEL J. HARVEY/ PAT RADLEY		
Counted by: (Signature) RECORD ON FILE	HP# NA	Date: NA
Counted by: (Print Name) NA		
Reviewed/Approved by: (Signature)	HP# [redacted]	Date: 8-8-02
Reviewed/Approved by: (Print Name) GALEN TOMLINSON		

C9006 93

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1-31	SEE	ATTACHED	N/A	CONCRETE SLAB
		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)

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Smear Analysis

B S Brown

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR000
Batch Ended: 8/8/02 13:27
Cal. Due Date: 4/25/03
Serial Number: 26966-3

Batch ID: 02-TF-1261 HARVEY(31) BSB

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.14		9.14	3.86	
A2	2	0.00	1.98		2.81	2.40	
A3	3	1.68	2.13		0.00	1.25	
A4	4	0.00	2.00		0.00	1.18	
B1	5	1.56	2.02		0.00	1.25	
B2	6	0.00	2.01		0.29	1.69	
B3	7	0.00	2.11		0.08	1.81	
B4	8	1.45	2.01		0.03	1.64	
C1	9	0.00	2.13		4.25	2.80	
C2	10	0.00	1.94		7.46	3.29	
C3	11	0.00	2.10		0.67	1.76	
C4	12	1.48	1.95		0.00	1.14	
D2	13	0.00	2.12		1.58	2.10	
D3	14	0.00	2.13		0.00	1.28	
D4	15	0.00	2.10		0.36	1.69	
A1	16	1.44	2.07		1.33	2.21	
A2	17	0.00	1.99		4.01	2.69	
A3	18	1.68	2.15		1.53	2.15	
A4	19	0.00	2.00		0.00	1.18	
B1	20	1.56	2.02		0.00	1.25	
B2	21	0.00	2.06		3.87	2.67	
B3	22	0.00	2.13		2.65	2.57	
B4	23	0.00	2.03		2.49	2.33	
C1	24	0.00	2.09		0.51	1.77	
C2	25	0.00	1.84		0.00	1.16	
C3	26	3.73	2.96		0.36	1.76	
C4	27	0.00	1.95		0.00	1.15	

27 H

27 H

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~~Page 1 of 2~~

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR000
Batch Ended: 8/8/02 13:27
Cal. Due Date: 4/25/03
Serial Number: 26966-3

Batch ID: 02-TF-1261 HARVEY(31) BSB

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
D2	28	0.00	2.13		2.80	2.43	
D3	29	0.00	2.14		0.36	1.81	
D4	30	0.00	2.09		0.00	1.19	
A1	31	1.45	2.05		0.00	1.28	

DJH DJH

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