



Rocky Flats Environmental Technology Site  
**RADIOLOGICAL CHARACTERIZATION  
PACKAGE**

**GROUP 5 CLOSURE PROJECT**

**REVISION 0**

**March 6, 2001**

Prepared by: Jay M. Britten / *Jay M. Britten* 3/5/01  
Radiological Engineer

Reviewed by: Duane Parsons / *Duane Parsons* 3/5/01  
RISS Facility Characterization Coordinator

Reviewed by: Steve Luker / *Steve Luker* 3/5/01  
Quality Assurance

Approved by: Vern Guthrie / *Vern Guthrie* 3/7/01  
Closure Project Facility Manager



ADMIN RECCRD

Y7

**Radiological Characterization Package  
Group 5 (442W, 442L, T551A)**

<b>Building:</b>	442L&W, T551A	<b>Last Updated:</b>	<b>Date:</b>	3/5/01	<b>Time:</b>	900	<b>Initials:</b>	JMB
------------------	---------------	----------------------	--------------	--------	--------------	-----	------------------	-----

- This characterization package was prepared in accordance with MAN-077-DDCP, D&D Characterization Protocols (07/26/00), and MAN-127-PDSP, Pre-Demolition Survey Plan for D&D Facilities (02/14/01).
- PDSP Data Quality Objectives were used to develop this characterization package.

**Instructions:**

1. Verify characterization activities are on the Plan-of-the-Day (POD).
2. Perform a Pre-Evolution Brief and/or Job Task Brief in accordance with the Site Conduct of Operations Manual.
3. Verify personnel have appropriate training for the applicable tasks they will be performing.
4. Comply with RWP requirements, if applicable.
5. Comply with JHA and facility PPE requirements, as applicable.
6. Inform the Facility Manager, or designee prior to starting characterization activities.
7. Follow applicable characterization and sampling procedures.
8. Notify Wackenhut Security (x2444) and the Shift Supervisor (x2914), and verify appropriate safety precautions/requirements are followed prior to accessing facility roofs.
9. Coordination with the Environmental Restoration Program organization will be required to further characterize underneath facility foundations and slabs prior to removal.
10. Collect and maintain all characterization paperwork in the Project File(s).
11. All radiological surveys shall be conducted in accordance with the sampling and instruction forms included in Group 5 Package Identification numbers 01-0009, 01-0010, 01-0012, 01-0013, 01-0014, and 01-0015. Sample locations are denoted on scaled maps attached to each survey package.

**Class 1 Areas**

Survey Area	Survey Unit	Class	Description	Total m <sup>2</sup>	Floor m <sup>2</sup>	Scan m <sup>2</sup>	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Class 1 Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
<b>Class 1 Totals</b>				0	0	0	0	0	0	

2

**Radiological Characterization Package  
Group 5 (442W, 442L, T551A)**

**Class 2 Areas**

Survey Area	Survey Unit	Class	Description	Total m <sup>2</sup>	Floor m <sup>2</sup>	Scan m <sup>2</sup>	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Class 2 Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
<b>Class 2 Totals</b>				0	0	0	0	0	0	

3

**Radiological Characterization Package  
Group 5 (442W, 442L, T551A)**

**Class 3 Areas**

Survey Area	Survey Unit	Class	Description	Total m <sup>2</sup>	Floor m <sup>2</sup>	Scan m <sup>2</sup>	TSA	Smears	Media	Class Justification
A	442-A-001	3	Interior of B442L (floor, walls, and ceiling)	948	259	95	15-random 15-biased	15-random 15-biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls). Also, two biased TSA and removable sample locations will be collected.
B	442-B-002	3	Exterior of 442L (walls and roof)	447	0	45	15-random	15-random	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination.
A	442-A-003	3	Interior of 442W (floor, walls, and ceiling)	1875	571	188	15-random 2-biased	15-random 2-biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls). Also, two biased TSA and removable sample locations will be collected.
B	442-B-004	3	Exterior of 442W (walls and roof)	1066	0	107	15-random	15-random	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination.

4

**Radiological Characterization Package  
Group 5 (442W, 442L, T551A)**

**Class 3 Areas**

Survey Area	Survey Unit	Class	Description	Total m <sup>2</sup>	Floor m <sup>2</sup>	Scan m <sup>2</sup>	TSA	Smears	Media	Class Justification
C	551-C-005	3	Interior of T551A (floor, walls, and ceiling)	1124	295	113	15-random 2-biased	15-random 2-biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls). Also, two biased TSA and removable sample locations will be collected.
D	551-D-006	3	Exterior of T551A (walls and roof)	586	12	59	15-random	15-random	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination.
<b>Class 3 Totals</b>				<b>6046</b>	<b>1137</b>	<b>607</b>	<b>96</b>	<b>96</b>	<b>0</b>	

<b>All Class Areas</b>	<b>All Class Totals</b>			<b>6046</b>	<b>1137</b>	<b>607</b>	<b>96</b>	<b>96</b>	<b>0</b>	
------------------------	-------------------------	--	--	-------------	-------------	------------	-----------	-----------	----------	--

5

**Radiological Characterization Package  
Group 5 (442W, 442L, T551A)**

Non-Impacted Areas										
Survey Area	Survey Unit	Class	Description	Total m <sup>2</sup>	Floor m <sup>2</sup>	Scan m <sup>2</sup>	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Non-Impacted Areas Identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
<b>Non-Impacted Totals</b>				0	0	0	0	0	0	0

6

**Radiological Characterization Package  
Group 5 (442W, 442L, T551A)**

Class 3 Areas										
Survey Area	Survey Unit	Class	Description	Total m <sup>2</sup>	Floor m <sup>2</sup>	Scan m <sup>2</sup>	TSA	Smears	Media	Class Justification
A	442-A-001	3	Interior of B442L (floor, walls, and ceiling)	948	259	95	15-random 2-biased	15-random 2-biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls). Also, two biased TSA and removable sample locations will be collected.
B	442-B-002	3	Exterior of 442L (walls and roof)	447	0	45	15-random	15-random	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination.
A	442-A-003	3	Interior of 442W (floor, walls, and ceiling)	1875	571	188	15-random 2-biased	15-random 2-biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls). Also, two biased TSA and removable sample locations will be collected.
B	442-B-004	3	Exterior of 442W (walls and roof)	1066	0	107	15-random	15-random	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the DCGL <sub>w</sub> . Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the DCGL <sub>w</sub> . A 10% scan will be biased towards areas of greater potential for contamination.

7/7  
 Supplemented in order to add additional biased measurements to elevated surfaces in survey unit 442-A-001 SMB 6/7/01