



INTEROFFICE CORRESPONDENCE

DATE: September 22, 1994

TO: E. A. Blush, Radiological Engineering, Bldg. T690B, X6093

FROM: R. W. Boyle, Solar Pond Projects, Bldg. 080, X6926 *R. W. Boyle*

SUBJECT: COMPLETION AND CLOSURE OF RADIOLOGICAL DEFICIENCY REPORT (RDR) #94-0226 - RWB-026-94

DOE Order: 5840.19

Action: None required

The subject RDR was written on August 11, 1994 when a subcontractor moved and crossed a Radiological Control Area (RCA) boundary rope without the presence of a Radiological Control Technician (RCT). A critique was held the same day as shown on the attached documents to determine cause and recommend corrective actions.

It was generally held at the critique that the meaning of the multiple area-within-area postings at the 750 pad were not well understood and tended to be confusing. The following corrective actions were recommended and have been implemented:

1. The Assistant Manager will conduct an open tour/indoctrination for all interested parties of the 750 pad area and cover Radiation Work Permits, sign in areas, signs, etc. on Wed. Aug. 17, 1994.

This was completed with several groups taking advantage of the opportunity.

2. A posting board of the 750 pad (under plexiglas) will show what work is currently going on, where to sign the RWP, where Radiological Control Areas (RCA) are etc.

This has been completed and is located in the wind shelter at the door of T750G next to the dosimeter board.

3. Visitors must be escorted by qualified personnel who have completed Rad Worker I training, Building indoctrination and wear a "white" dosimeter.

This has been completed in the form of a letter attached to the visitors sign in which lists, by name, the authorized escorts.

4. Two different photos of the Rad posting signs will be placed in the building indoctrination book as soon as possible. These photos will also be displayed near the posting board.

This action will be completed as soon as pictures are obtained.

5. Radiological engineering will discuss the differences in RCA's with the contractor to verify his knowledge of these areas.

ADMIN RECORD

1122

E. A. Blush
September 22, 1994
RWB-026-94
Page 2

This action was completed on Aug. 31 as evidenced by the attached letter. The contractors knowledge was found to be adequate and his dosimetry has been returned to him.

Completion of these actions satisfies the corrective actions resulting from the critique and this RDR is now considered complete.

jlb

Attachment:
As Stated

cc:
ERPD Records (2)
File

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INTEROFFICE CORRESPONDENCE

DATE: August 31, 1994
TO: R. W. Boyle, Solar Ponds Project, Bldg. 080, X6926
FROM: E. A. Blush, Radiological Engineering, Bldg. T690B, X6093 
SUBJECT: RESPONSIBILITY FOR RADIOLOGICAL DEFICIENCY REPORT (RDR)
#94-0226 - EAB-036-94

Rocky Flats Plant performance in radiological health and safety is monitored by identifying and evaluating radiological problems and trends. The purpose of the RDR is to ensure that radiological deficiencies are identified and documented through internal reviews conducted by management. RDRs are trended to show performance and analyzed collectively to determine generic or repetitive problems. After problems of a recurring nature are identified and analyzed for a programmatic root cause, the Lessons Learned Program uses this data to initiate appropriate corrective action.

You have been identified as the manager responsible for the determination and completion of permanent corrective action for RDR #94-0226. Original documents are attached. Please note that this information is sensitive and process accordingly.

In order to close out this RDR, you (or your designee) are required to review and investigate this RDR as necessary, determine the root cause, develop permanent corrective action, and develop methods of implementation. In addition, you must ensure that corrective action and recurrence control are implemented and documented by the target completion date. The target completion date for close out of this RDR is September 15, 1994. For further information, refer to the Health and Safety Practices Manual (HSP), 1-H02-HSP-3.02.

Please use official correspondence to complete your report. If this RDR is a reportable occurrence to the DOE, you may instead attach a copy of the 10-day or final version of the occurrence report. Sign and date the original RDR form in the box marked Responsible Manager; forward the entire RDR package to the RDR Coordinator, Radiological Engineering, Building T690A, X2716, by the indicated target date. At that time, the RDR Coordinator will review the RDR for final closeout. Your effort to close out this RDR is being monitored by the Plant Action Tracking System (PATS) for commitment tracking.

If you have any questions or need further assistance, please do not hesitate to contact me at extension 6093, pager 3295 or Dick Norton at extension 4075, pager 7973.

Attachments:
As Stated

R. W. Boyle
August 31, 1994
EAB-036-94
Page 2 of 2

Attachment 1
RWB-026-94
Page 2 of 20

cc:
R. W. Norton
RDR Administrator

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RADIOLOGICAL DEFICIENCY REPORT

ORIGINAL

Attachment 1
RWB-026-94
Page 3 of 20

ROCKY FLATS PLANT

1.A. RDR Number: 94-0226

"Rewrite"

2.a. D. LINDON b. _____ c. _____ d. 750 PM TENT 4
ORIGINATOR Event Date: 8/11/94 Time: 0945 Location: Bldg. Room Pad Other

SECTION:

e. Describe Protective Clothing Worn: Long sleeve Blue Coveralls

f. How was area posted? (Radiologically) CAUTION! RADIOACTIVE MATERIAL, RWP Required
ENTER AT S.O.P ONLY

g. Individuals Involved: (When this section is completed, this form becomes SENSITIVE INFORMATION under the Privacy Act).

Name(s):	Emp. #:	Org/Company	Job/Classification	Supervisor
<u>S. Spencer</u>	_____	<u>WALSH + ASSOC.</u>	<u>Contractor - ASRP</u>	<u>Ray Boyle - Contract Tech. Rep.</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

f. DESCRIPTION OF EVENT: (see reverse for event descriptions, insert corresponding alpha/numeric characters e.g., III-b, etc., or describe event here or on separate sheet) EVENT TYPE: IV-B, Violation

i. DESCRIPTION OF DEFICIENCY: Include Documentation - RWP's, Surveys, Air Sample Results, etc. Answer Who, What, When, Where, Why and How: (use additional sheets as necessary). MR. SPENCER WAS SEEN INSIDE THE RMA WITHOUT PROPER CLOTHING AND IT WAS NOTICED THAT THE ROPE ACROSS THE RMA WAS DOWN, THEY WERE TOLD TO WAIT THERE UNTIL AN RCT COULD ARRIVE TO CHECK THEM. THE RCT ARRIVED TO FIND THE ROPE + SIGNS BACK UP IN PLACE AND SAID PEOPLE OUTSIDE THE RMA AREA

j. IMMEDIATE CORRECTIVE ACTION TAKEN: RCT CHECKED PERSONNEL FOR CONTAMINATION NONE WAS FOUND. CONTROL POINT SURVEY OF TENT 4 WAS PERFORMED NO CONTAMINATION FOUND. ALL SIGNS + POSTING IN PLACE.

k. Originator Name: D. LINDON Emp. #: _____
Job/Classification: RCT
Bldg.: Pumps/Pads Ext. #: _____
Report Date: 8/11/94 Time: 12:50

3.a. Reviewed: RO Foreman
Name: J. DRAK Sign: _____
Emp. #: _____
Date: 8/11/94 Time: 1300
RWP Number: PP-750WS-94-010-01

4.a. DOE 5000.38, Categorization: Emergency
 Unusual Occurrence Off Normal
 Internally Reportable Not Applicable
Operations Manager: SWDOWITZ 1 8/15/94

b. Occ. Report Number: 1158

5.a. RESPONSIBLE MANAGER: Ray Boyle Ray Boyle CTR 8/17/94
Name: _____ Signature (denotes acceptance) Date: _____ Time: _____

b. Target Completion Date: 8/25/94 Revised: 9/15/94 RBE Int. SWX Comments: other items requiring immediate attention 8/23/94

c. Completion Summary: _____

d. Apparent Cause Category: Procedures Management Systems Communications Planning
 Personnel Equipment Training Other _____

e. I have corrected this RDR and recommend closeout. Name: _____ Sign: _____ Emp. # _____ Date: _____

6.a. RADIOLOGICAL BUILDING ENGINEER (RBE): Ray Boyle Ray Boyle 8/31/94 0840
Name: _____ Signature: _____ Date: _____ Time: _____

7.a. CLOSEOUT: Satisfactory Unsatisfactory Returned to Resp. Mgr. Date: _____
RDR ADMINISTRATOR: Name: _____ Sign: _____ Date: _____ Time: _____

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JAN 19 1990

APPENDIX 2
Page 2 of 2

Attachment 1
RWB-026-94
Page 4 of 20

RADIOLOGICAL DEFICIENCY REPORT

INSTRUCTIONS: ORIGINATOR (see 1-1102-1 ISP 3.02 for complete instructions on filling out this form.)

- IF involved individuals wore different protective clothing, THEN record the differences under the description of deficiency. Location is where the deficiency occurred. Record in this section how the area was posted (radiologically) at the time the event occurred.
- IF the deficiency does NOT directly involve personnel, THEN record N/A in the individuals involved section.
- List all individuals involved in the deficiency. A Radiological Control Technician (RCT) should not be listed as an involved individual unless the individual was (must match in number with RCT) directly involved in the deficiency.
- IF more forms are needed, THEN use a second RDR form. NOTICE: If individual names are listed in this section, the entire form becomes SENSITIVE INFORMATION as required by the Privacy Act, only those with a "need to know" shall be granted access to the document.
- Record the event description(s) that most clearly and closely describe what occurred or was discovered. Check (✓) all descriptions that apply and insert the alphanumeric designation on the front of this form.
- WHEN describing the deficiency, THEN provide detailed pertinent facts such as square foot of area contaminated, range of contamination and activities, number(s) of (so that a reasonably knowledgeable person can understand the deficiency):
 - Selective alpha air monitors (SAAMs) alarmed
 - Failed equipment
 - Tanks
 - B box
 - Windows
 - Air sample results
- Ensure that the questions are completely answered in full, and answer:
 - Who
 - What
 - When
 - Where
 - Why
 - How.
- Provide and forward to the Radiological Operations Foreman:
 - Signature
 - Phone extension
 - Employee number
 - Date
 - Time
 - Job/classification

GENERAL

- RDR forms shall have all information entered in an accurate, legible, and complete manner.
- Information entered onto the RDR form shall not be abbreviated to fit the space available. Additional sheets shall be attached as required to ensure completeness. Standard abbreviations as noted in the Rocky Flats Dictionary are permitted.
- Errors shall be corrected by drawing a single line through the incorrect entry/date, and followed with the corrected information. The individual changing the information shall enter their initials next to the striking line. The use of correction fluid or tape is prohibited to ensure that all changes to the information are patently obvious.

EVENT DESCRIPTIONS:

List all event descriptions that apply by indicating alphanumeric character in the appropriate place on the front of this form.

IF no listed description applies accurately, THEN record the description of the event on the front in the space provided or on a separate sheet.

- | | |
|---|--|
| <p>I. Contamination Control</p> <ul style="list-style-type: none"> a. General Area Contamination b. Personnel Contamination (skin) c. Company Clothing Contamination d. Personal Clothing Contamination e. Spill Contributing to Area Contamination f. Loss of Containment/Control g. Contamination in Uncontrolled Area h. Improper Frisking of Personnel or Items i. Improper use or misuse of Self Monitoring Equip. j. Improper Wearing of Anti-C Clothing k. Improper Use of Radiological Containment | <p>III. Internal Exposure Control</p> <ul style="list-style-type: none"> a. Positive SAAM Alarm w/o Respiratory Protection b. Wound (confirmed positive) c. Misuse of Respiratory Protection System d. Expired Respirator Certification Card While in RCA e. Potential or Confirmed Inhalation or Ingestion |
| <p>II. External Exposure Control</p> <ul style="list-style-type: none"> a. Improperly Marked Radioactive Material b. ALARA Concerns c. Exceeding Exposure Limits d. Exceeding Exposure Admin. Dose Guides (ADG) e. Radiological Posting Violation f. Dosimeter Lost or Not Worn g. Improper or Lacking Radiological Posting | <p>IV. Administrative or Procedure Problems</p> <ul style="list-style-type: none"> a. Procedure Violation or Inadequacy b. Radiological Work Permit Violation or Inadequacy c. Failure to Obtain or Adhere to Job Pre-evaluation d. Poor Housekeeping in RCA <p>V. Environmental Concerns</p> <ul style="list-style-type: none"> a. Effluent SAAM Alarm b. Unconfined Radioactivity Outside an RCA c. Improper Disposal of Rad. Waste d. Loss of Radioactive Sources |

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CRITIQUE MEETING MINUTES

OCCURRENCE TRACKING NUMBER: #1158, WSTREPACK 1994-0005

TITLE OR SUBJECT OF OCCURRENCE: A contractor removed a radiological posting without a Radiological Control Technician (RCT) present and was without proper Personnel Protective Equipment (PPE).

EVENT DATE/MILITARY TIME: 8/11/94;1100

COGNIZANT MANAGER: J. D. Roberts, X 3324, Pager D-3562, Bldg. T893B
Director: S. W. DeWitt; Recorder: R. A. Frank

=====

BUILDING: Tent 4, 750 Pad.

EQUIPMENT/PROCESS: N/A.

OPERATING CONDITIONS: Normal.

SUMMARY OF INCIDENT:

During routine operations at Tent 4 on the 750 Pad, a contractor moved a radiological posting without a Radiological Control Technician (RCT) present and entered a Radiological Material Management Area (RMMA) with out proper Personnel Protective Equipment (PPE).

INJURIES/ILLNESS: No Describe:

IMMEDIATE RESPONSE ACTION: (Action(s) Taken To Control and Prevent Further Aggravation Of Situation?)

A survey was completed with negative results and there were no adverse effects as a result of this occurrence.

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ADMINISTRATIVE CONTROLS AND PHYSICAL SAFETY BARRIERS THAT WILL BE STRENGTHENED:

Corrective Actions:

- 1) Assistant Manager will give an open tour/indoctrination (to anyone that will come to the 750 area) regarding Radiation Work Permit (RWP) facilities, sign-in areas, signs, etc. on Wednesday, August 17, 1994, 0200, T750G.
- 2) A Posting Board of the 750 Pad (under plexiglass) will show what work is currently going on, where to sign the RWP, where Radiological Control Areas (RCA) are, etc. Board should be ready in three days.
- 3) Visitors must be escorted by qualified escorts who have completed Rad Worker I and Building Indoctrination and wear a "white" dosimeter.
- 4) Two different photos of the Rad posting signs will be put into the Building Indoctrination book as soon as possible. These photos will also be posted by the Posting Board.
- 5) Radiological Engineering will discuss differences in RCAs with the contractor to verify his knowledge of these areas.

LIST OF MEETING ATTENDEES:

S. W. DeWitt	R. W. Boyle
R. A. Frank	E. A. Blush
T. d. Beckman	E. D. Lindon
S. C. Spencer	M. L. Littleton
G. Schmidt	B. Richardson
N. Candido	P. Psomas
G. L. Martinez	J. R. Churchill
C. J. Turner	J. F. Guadagnoli
S. R. Keith	J. B. Miller
A. C. Scarpella	D. M. Wise
B. I. Williamson	


S. W. DeWitt Date

Assistant Manager
Waste Solidification

mfn

cc:
J. A. Ciucci

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INTEROFFICE CORRESPONDENCE

DATE: August 31, 1994
TO: R. W. Boyle, Solar Ponds Project, Bldg. 080, X6926
FROM: E. A. Blush, Radiological Engineering, Bldg. T690B, X6093 *E. Blush*
SUBJECT: DISCUSSION WITH SUBCONTRACTOR REQUIRED TO CLOSEOUT RDR #94-0226
- EAB-037-94

As part of the corrective action for RDR #94-0226, Radiological Engineering was required to question Mr. Stan Spencer from Walsh & Associates regarding differing radiological control levels used in conjunction with sludge removal from the 207 Series Solar Ponds. Mr. Spencer was questioned by Ed Blush from Radiological Engineering Environmental Restoration Section on August 11, 1994.

Mr. Spencer's knowledge of differing radiological control levels used in the Solar Ponds and Pads areas was found to be satisfactory. Items discussed included posting of Radiological Control Areas (RCA) and Radioactive Material Areas (RMA), RWP requirements including RCT support, and who should be contacted prior to entry into posted areas inside the RCA. Mr. Spencer stated that the RCA and RMA designations are sometimes confusing. Further discussion with Mr. Spencer clarified the differences in designations and requirements.

Based on the discussion with Mr. Spencer and on further discussion with Radiological Engineering management for the Ponds-&-Pads, Radiological Engineering has directed the reposting of Radioactive Material Areas within the RCA as Contamination Areas (due to the potential for contamination) with more explicit postings on the Contamination Area boundaries.

Finding Mr. Spencer's knowledge of radiological control requirements for these areas to be adequate, Radiological Engineering Environmental Restoration Section will approve the return of Mr. Spencer's TLD upon authorization from upper management (R. Kell).

If you have any questions, please do not hesitate to contact me at extension 6093, pager 3295 or Dick Norton at extension 4075, pager 7973.

cc:
R. W. Norton
S. Spencer

OCCURRENCE REPORT

Waste Repacking & Solidification

(Name of Facility)

Balance-of-Plant

(Facility Function)

Rocky Flats Plant / EG&G Rocky Flats

(Name of Laboratory, Site or Organization)

Name: DeWitt, Steven W.

Title: Assistant Operations Manager

Telephone No.: (303)966-3324

(Facility Manager/Designee)

Name: S. W. DeWitt

Title: Operations/Facility Manager Designee

Telephone No.: (303)966-3324

(Originator)

Name: J. D. Brennan

Date: 08/11/1994

(Authorized Classifier (AC))

1. OCCURRENCE REPORT NUMBER: RFO--EGGR-WSTREPACK-1994-0005
#1158/Procedural Deviation Entering a Radiological Material Management Area (RMMA).
2. REPORT TYPE AND DATE:

<input checked="" type="checkbox"/> Notification	Date	Time
<input type="checkbox"/> 10 Day	08/11/1994	1546 MTZ
<input type="checkbox"/> 10 Day Update		
<input type="checkbox"/> Final		
3. OCCURRENCE CATEGORY:

<input checked="" type="checkbox"/> Emergency	<input type="checkbox"/> Unusual	<input checked="" type="checkbox"/> Off-Normal	<input type="checkbox"/> Cancelled
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4. DIVISION OR PROJECT: EG&G Rocky Flats, Inc.
5. DOE PROGRAM OFFICE:
EM - Environmental Restoration & Waste Management
6. SYSTEM, BLDG., OR EQUIPMENT:
750 Pad, Tent 4 area
7. UCNI?: No
8. PLANT AREA: Waste Storage Pads
9. DATE AND TIME DISCOVERED:
08/11/1994 1100 (MTZ)
10. DATE AND TIME CATEGORIZED:
08/11/1994 1320 (MTZ)

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08/11/1994

Notification Report
Page 2

11. DOE NOTIFICATION:

12. OTHER NOTIFICATIONS:

08/11/1994 1335 (MTZ) SDO, David Vaughan

DOE/RFFO

13. SUBJECT OR TITLE OF OCCURRENCE:

#1158/Procedural Deviation Entering a Radiological Material Management Area (RMMA).

14. NATURE OF OCCURRENCE:

01) Facility Condition
F. Violation/Inadequate Procedures

15. DESCRIPTION OF OCCURRENCE:

On 8/11/94 at approximately 1005, during routine operations at the 750 waste storage pad, Tent 4, it was noted that a contractor had removed a Radiological Posting without a Radiological Control Technician (RCT) present, and entered a Radiological Material Management Area (RMMA) without proper Personal Protective Equipment (PPE).

16. OPERATING CONDITIONS OF FACILITY AT TIME OF OCCURRENCE:

Normal Operating Conditions

17. ACTIVITY CATEGORY:

Normal Operations

18. IMMEDIATE ACTIONS TAKEN AND RESULTS:

1. Operations were immediately terminated.
2. A survey was completed with negative results.
3. There were no adverse effects as a result of this occurrence.
4. A critique has been scheduled to review this occurrence.

Occurrence Report Critique Minutes
RFO--EGGR-WSTREPACK-1994-0005
SPMS# 1158
August 11, 1994
1400 Hours

Critique Director Steve DeWitt, X3324/D0348

Director gives rules of critique, reads RDR and asks for Contractor Personnel statement.

Contractor Stan, utilizing an RWP to perform support work on truck. (smoke test on truck). At 1004 entered tent, was informed by a Process Specialist (PS) was in an RCA, the PS instructed contractor to wait and she would get an RCT.

Contractor Tom, was working at the gate doors using bungee cords to secure doors open. Proceeded inside tent and saw Stan standing by the door.

Process Specialist, went into the South East door of tent, saw a man inside the RCA area, noticed he needed booties, informed him he was in an RCA and told him to stay there and would get an RCT.

Stan & Tom, Road east side of tents, truck out of tent 6 to this tent. (Tent 5) Opened gate, opened wrong gate, was not aware of the rope indicating an RCA. Proper rope was used, posted RWP, booties and enter at SOP. Tent doors swing in - open from outside only.

RCT, got to the scene, everyone was standing outside of the roped off area. The rope was up.

Nancy, (IH) concerned, areas need to be posted better. According to DOE, signs are not proper. Hard to distinguish, instructions not clear.

Name?, this is a temporary facility, large area, mobile. Area posted the same for long time. Rad areas-establish SOPs, post area. This area did not have a SOP established. Looking at ways to improve posting. Attempting to improve. But, personnel still cannot violate existing posting.

Nancy, (IH) Still does not agree with the posting. Posting are very confusing. (NEED TO TALK TO NANCY)

Littleton- Area is posted according to the ROI, additional posting around Radiological Material, contaminated areas. These are not appropriate but the best we can do for now.

Contractor, Stan- confused, was not able to distinguish-the posting

The area personnel first enter is a RMA- RCA surrounds RMA. No contamination, do not suspect contamination.

12/22

The area is established as an RCA once personnel are working.
Need an RCT and RWP.
Pads are RCA- Frisking not required, no contamination.

Name ? Due to the large areas need to establish SOP, need to control these. These need to be monitored.

Started at 750 pad fenced area.
Everything inside fence - posted.
Street clothes are allowed- cannot cross rope.
Lots of truck traffic in and out.

There was a pre-ev held.
Inside RCA -Tent 6 at rope
need to go under rope to enter the RCA
Sign inside of roped area
Robert in the truck
West end tent 6- into the RCA
Stan and Tom in between- to gate front of tent 4
opened lock
proceeded to secure gate fence gate
all personnel are properly trained to work in the tent areas
Stan by door being instructed to remain
Tom thought he read RCA on door
Stan failed to distinguish
RWP DID NOT COVER EVERYTHING
Stan out of tent awaiting RCT

Everything was done correctly up to stepping into the RCA.

Roped off inside tent 4 & 3
RCA--east vehicle door--rope inside
man door--ropes inside tent
when RCT arrived rope was in place

Before work started- RWP, pre-ev meeting held.
Did not review RWP until 9:15.

SUGGESTED CORRECTIVE ACTIONS:

Nancy (IH) and DOE Richardson
All entry requirements on signs, e.g. correct PPE, (this should be covered on the RWP.

Dewitt
Possibly deposit area- and post each tent separately

Keith
Have a rule that no-one but an RCT remove rope(s)
(anyone can now remove rope(s) so long as they replace them.
SOP are established only as needed. Not in place all the time

Tom (contractor)
Need chart (map) of posted areas, then train to chart

Name ? Starting tomorrow an RWP desk will have an RCT available 24 hours a day.

Nancy
Every area needs to be visually posted
There are too many signs- too confusing- personnel tend to overlook.
Make different looking signs
Contractors not familiar with area should be supplied escorts

Dewitt
Need to conduct more through pre-evs.

Problems:
Contractor personnel are allowed to open fence gates and remove ropes outside tents, but are not allowed to remove ropes or barriers inside the tents. This is very confusing to them. (Need to get memo allowing contractors to remove ropes)
Contractors are working off of multiple RWPs. Example: one RWP is issued to get to the tents and another one is issued for once they are inside the tent. RWPs are not job specific, they cover more than one job assignment. Example: RWP 010, requires two levels of PPE, depending on the job they are assigned.
(Need to find out what the letter from Kell on Badges is about)

**RADIOLOGICAL
Contamination Survey**

Taken by: David Smith Emp. # [REDACTED]
Signature

Taken by: _____ Emp. # _____
Signature

Taken by: _____ Emp. # _____
Signature

Date: 8/11/94 Building: 750 PAD Survey Description: CONTROL POINTS
 Time: 11:00 Room #: TENT 4 TENT 4
 Shift: DAY Diagram/Sketch Attached: Yes No

INSTRUMENTATION USED

Smear Counters

Mfg:	<u>Eberline</u>	<u>Eberline</u>	<u>Eberline</u>		
Model:	<u>SAC-4</u>	<u>SAC-4</u>	<u>SAC-4</u>	_____	_____
Serial #:	<u>1201</u>	<u>846</u>	<u>827</u>	_____	_____
Date Perf. Test:	<u>8/11/94</u>	<u>8/11/94</u>	<u>8/11/94</u>	_____	_____
Date Calib'd:	<u>6/21/94</u>	<u>7/26/94</u>	<u>5/2/94</u>	_____	_____
Cal. Due Date:	<u>12/94</u>	<u>1/95</u>	<u>11/94</u>	_____	_____
Mfg:	<u>Eberline</u>	<u>Eberline</u>	_____	_____	_____
Model:	<u>BC-4</u>	<u>BC-4</u>	_____	_____	_____
Serial #:	<u>915</u>	<u>912</u>	_____	_____	_____
Date Perf. Test:	<u>8/11/94</u>	<u>8/11/94</u>	_____	_____	_____
Date Calib'd:	<u>7/19/94</u>	<u>7/27/94</u>	_____	_____	_____
Cal. Due Date:	<u>7/95</u>	<u>7/95</u>	_____	_____	_____

Survey Instruments

Mfg:	<u> Ludlum</u>	<u> Ludlum</u>			
Model:	<u>12-1A</u>	<u>31</u>	_____	_____	_____
Serial #:	<u>73248</u>	<u>6644</u>	_____	_____	_____
Date Perf. Test:	<u>8/11/94</u>	<u>8/11/94</u>	_____	_____	_____
Date Calib'd:	<u>2/22/94</u>	<u>5/19/94</u>	_____	_____	_____
Cal. Due Date:	<u>8/94</u>	<u>5/95</u>	_____	_____	_____
Background:	<u>2750</u>	<u>2100</u>	_____	_____	_____

COMMENTS

Status: Within Limits

- Limits Exceeded
- Posted
- Deposted

Radiological Operations Foreman:

John Drake 8/10/94
Signature Date

15/22

RADIOLOGICAL
Contamination Survey

RESULTS

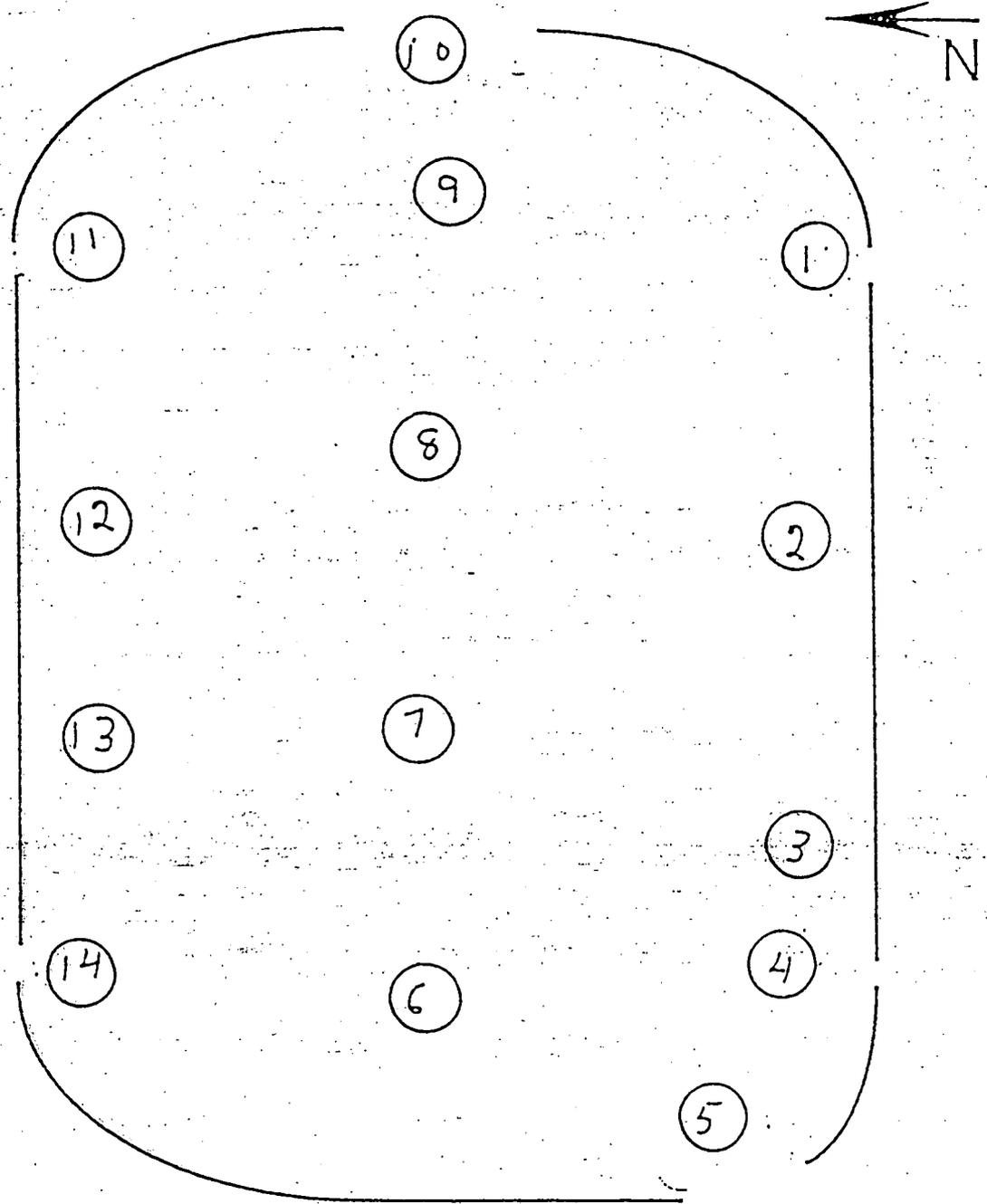
Date: 8/11/94 Time: 1100 Building: 750 PAD Room: TENT 4

α			β		
cpm Removable (Swipe)	Initial cpm Direct	dpm/100cm ² Removable (Smear)	cpm Removable (Swipe)	Resurvey cpm Direct	dpm/100cm ² Removable (Smear)
1.	<u>250</u>	<u>0</u>	1.	<u>100</u>	<u>6</u>
2.	<u>250</u>	<u>0</u>	2.	<u>100</u>	<u>0</u>
3.	<u>250</u>	<u>3</u>	3.	<u>100</u>	<u>0</u>
4.	<u>250</u>	<u>0</u>	4.	<u>100</u>	<u>9</u>
5.	<u>250</u>	<u>6</u>	5.	<u>100</u>	<u>3</u>
6.	<u>250</u>	<u>3</u>	6.	<u>100</u>	<u>0</u>
7.	<u>250</u>	<u>0</u>	7.	<u>100</u>	<u>0</u>
8.	<u>250</u>	<u>0</u>	8.	<u>100</u>	<u>15</u>
9.	<u>250</u>	<u>3</u>	9.	<u>100</u>	<u>0</u>
10.	<u>250</u>	<u>0</u>	10.	<u>100</u>	<u>0</u>
11.	<u>250</u>	<u>0</u>	11.	<u>100</u>	<u>6</u>
12.	<u>250</u>	<u>6</u>	12.	<u>100</u>	<u>3</u>
13.	<u>250</u>	<u>0</u>	13.	<u>100</u>	<u>0</u>
14.	<u>250</u>	<u>0</u>	14.	<u>100</u>	<u>0</u>
15.			15.		
16.			16.		
17.			17.		
18.			18.		
19.			19.		
20.			20.		
21.			21.		
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41.			41.		
42.			42.		
43.			43.		
44.			44.		
45.			45.		

11/22

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 4 Control Point Survey



10,027 SQ. FT.

 14 Total Survey Points

17/22

ATTENTION

ALL RWPs MUST HAVE AN R.O. FOREMAN SIGNATURE IN THE FIRST COLUMN OF THE SURVEY SECTION TO BE VALID. JOB SUPERVISORS ARE RESPONSIBLE FOR OBTAINING THIS REVIEW SIGNATURE PRIOR TO BEGINNING WORK UNDER ANY RWP. NON-COMPLIANCE WITH THE RWP PROGRAM COULD RESULT IN TERMINATION OF THE RWP UNTIL COMPLIANCE IS DEMONSTRATED.

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EXTENDED

RADIATION WORK PERMIT
Rocky Flats Plant

Attachment 1
RWB-026-94
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NO.: FP75-cws-94-010-01

Date: 8-6-94

Specific Task or Operation

WORK SUPPORT OF ASRP VACUUM

WO/PROCEDURE #

OPERATIONS

Location: Bldg 750 Rm
Area: PAD + TENTS

Supervisor: Phone 25755
Name: STEVE DEWITT
Empl # _____
Department WS

RWP Starts RWP Ends
Date 8-6-94 Date 8-6-94
Time 01:30 Time 01:30

REQUIREMENTS

Protective Clothing

- Inspection Only
- Coveralls
- Shoe Covers ①
- Surgeon Gloves
- _____ pair
- Anti-C Coveralls ①
- Wet Suit
- Plastic Boots
- Rubber Boots
- Hood
- _____ type
- Work Gloves ①
- MIRILE type
- Tape Openings ①
- Other

Respiratory

- Full Face, Particulate
- Full Face, Airline
- Supplied Air Suit
- Portable SAAM
- Lapel Air Sample

Containment

- Pen
- Tent
- Point Source
- Air Mover
- HEPA Vacuum

ALARA REVIEW REQUIRED
Y _____ NX _____

Dosimetry

- TLD SRD
- EXT
- Other
- Pre/Post
- Bioassay
- DO NOT EXCEED
- _____ mRem/RWP

Rad Ops Coverage

- Full Start
- Oncall None

Rad Eng XY
Name: John Decker Fred Bluse
Phone: 6697

Comments

① REQUIRED FOR PUMPING TONNER TO TANK, ANYONE ENTERING THAT POSTED AREA.

Smear Type: A BG

SURVEYS

Extended RWP
Freq: S D W M R ① NA

Pre Pos/Dur	PRE		POST					
	A	BG	A	BG				
Removable	<u><20</u>	<u><200</u>	<u><20</u>	<u><200</u>				
Fixed	<u><50</u>	<u><100</u>	<u><250</u>	<u><400</u>				
mR/hr G	<u>N/A</u>		<u>N/A</u>					
mRem/hr N	<u>N/A</u>		<u>N/A</u>					
mRem/hr @ 1m	<u>N/A</u>		<u>N/A</u>					
N/G Ratio	<u>N/A</u>		<u>N/A</u>					
RPT Name	<u>Lindon</u>		<u>Carillo</u>					
Employee #	<u>51155</u>		<u>51637</u>					
Date	<u>8/8/94</u>		<u>8/10/94</u>					
Time	<u>0845</u>		<u>1300</u>					
RO Foreman	<u>[Signature]</u>		<u>[Signature]</u>					
Employee #								

- Original -- Post at work site (Return to RAD Engineering at Termination)
- Copy -- RWP Master File
- Copy -- Rad Building Engineer

RADIATION WORK PERMIT

Rocky Flats Plant
Continuation Survey Sheet

Attachment 1
RWB-026-94
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Smear Type: A. BG

Pre/Post/Dur

Removable							
Fixed							
mR/hr G							
mRem/hr N							
mRem/hr @1m							
N/G Ratio							
RPT Name							
Employee #							
Date							
Time							
RO Foreman							
Employee #							

Pre/Post/Dur

Removable							
Fixed							
mR/hr G							
mRem/hr N							
mRem/hr @ 1m							
N/G Ratio							
RPT Name							
Employee #							
Date							
Time							
RO Foreman							
Employee #							

Pre/Post/Dur

Removable							
Fixed							
mR/hr G							
mRem/hr N							
mRem/hr @ 1m							
N/G Ratio							
RPT Name							
Employee #							
Date							
Time							
RO Foreman							
Employee #							

Retain with RWP / Send to RAD Engineering after Termination

20/22

RADIATION WORKER RESPONSIBILITIES

Responsibilities of the radiation worker at the Rocky Flats Plant are listed below and shall be adhered to by all radiation workers. These responsibilities are also listed on the reverse of the Personnel Roster:

- 1) Obey promptly any "Stop Work" or "Evacuate" instructions.
- 2) Obey posted, written, and verbal radiation safety instructions.
- 3) Wear personnel dosimetry devices as required by procedure or Radiological Engineering.
- 4) Keep track of your own exposure and avoid exceeding dose limits.
- 5) Accomplish all work in radiological areas AS LOW AS Reasonably Achievable (ALARA).
- 6) Do not eat, drink, smoke or chew in Radiologically Controlled Areas.
- 7) Wear protective clothing and respirators properly.
- 8) Remove protective clothing and respirators so as to minimize the spread of contamination.
- 9) Monitor yourself or be monitored for contamination as directed when leaving a contaminated or controlled area.
- 10) Minimize suspected/known radioactive spills and notify Radiological Operations (RO) and Operation management.
- 11) Do not unnecessarily touch contaminated surfaces or allow clothing, tools or other equipment to do so.
- 12) Minimize the amount of material to be decontaminated or disposed of as radioactive waste.
- 13) Report the presence of open or treated wounds to RO before entering controlled area and immediately report a wound if it occurs in a controlled area.
- 14) Promptly report unsafe or non-compliant conditions to your supervisor.
- 15) Obey all alarms or public address announcements affecting your work.
- 16) Thoroughly read, understand and comply with the requirements of the Radiation Work Permit (RWP).
- 17) Properly log yourself in and out on the RWP Personnel Roster.