

# JOINT COMPANY/UNION SAFETY COMMITTEE CONCERN FORM

Case Number

PWD  
00-026

This Form May Be Used By All RFETS Employees  
(NOTE: All lines MUST be completed)

Employee Name [Redacted] Employee Number [Redacted]

Employee Company (Matrix) KH Department Radops

Job Title RCIT II Bldg. 371 Phone [Redacted] Shift pm

Supervisor Jason Vogel Supv Ext 5441  
Print Last Name, First Name, and Middle Initial

I have previously discussed Concern with Supervision:  Yes  No

Location of Concern Bldg 371 Safety Concern (see Attached)

Recommendation Glove Box Gloves should be changed upon identification of any deterioration or contamination, not after 9 hrs or training. Procedural compliance is mandatory!  
(Additional Space On Back)

Employee Signature [Redacted] Date 5/12/00

Steward [Redacted] Signature [Redacted] If Applicable [Redacted] Date [Redacted]  
Print Last Name, First Name, and Middle Initial

Supervisor Response Within 5 Working Days (attach all pertinent documentation)  
see attached

(Additional Space On Back)  
I have discussed above response with concerned employee [Redacted] Date 5/24/00  
Supervisor Signature

Manager [Redacted] Ext [Redacted] Signature [Redacted] Date [Redacted]  
Print Last Name, First Name, and Middle Initial

Satisfied with response  Not satisfied with response  Give brief reason if not satisfied: answer to concern is not accurate or complete. jvm 5/24/00 p. Schaffer

Employee Signature JM Laska Date [Redacted]

Assigned to:

Union MASINGALE Date 5/25/00

Company \_\_\_\_\_ Date \_\_\_\_\_

On 5/9/00 at approximately 11:00, 5 glovebox gloves in room 3701, box 1509, were identified to have removable alpha contamination levels above RFRCM table 2.2. Personnel Identified having 6,000 d/m/100 cm<sup>2</sup> removable alpha contamination on anti-c glove were not using protective gloves inside the glovebox as stated on their RWP 00-371-0089 and discussed in previous critiques. Wet combustible supervision in room 3701 did not ensure proper safety equipment was used and stated to RCT'S " This is not the first time, and will not be the last." When PM shift RCT'S were pre-ved on the changing of the gloves in room 3701, it was stated that the gloves will not be changed until PUSPS training was complete in room 3701. (non compliance with Glovebox Maintenance Procedure pg. 19, sect. 7.1.14; RFRCM sect. 361 & sect. 342.1; also RSP section 4.1.4 Room 3701 was not prioritized by this safety related condition, but compromised by allowing PUSPS training activities to continue for up to 8 hours before glove changes were allowed. COOP violation pg. 85-sect. A, pg. 82-83) When concerns were brought to RCT supervision (Vogel) RCT'S suggested that the room be posted CA,ARA due to the HCA levels found at the glovebox. (RFRCM sect. 222-table 2.1) Supervision stated not to post until PUSPS was done. (non compliance RFRCM sect. 235 table 2.4, sect. 555.I.2) PUSPS pre-evolution brief failed to warn trainees of the changed room conditions per COOP4-c-3, RFRCM sect 324. Consequently personnel were potentially exposed to contamination without prior knowledge. When RCT'S approached PUSPS supervision (Stocho) to inform them of the glovechange, Stocho stated " I've got till 8:00!" Gloves were not allowed to be changed until after 2000hrs, Nine hours after initial incident occurred. Once again Production was placed before Safety and numerous procedures were violated. As per the Glove box maintenance procedure, these gloves should have been replaced as soon as they were identified, not after PUSPS training was completed. Personnel were put in an unsafe condition due to another production Push.

**Table 2-2**  
**Summary of Contamination Values<sup>1</sup>; in DPM/100 cm<sup>2</sup>**

NUCLIDE	Areas (Activity Guide, G)		Materials and Equipment (Activity Guide, G)			Personnel <sup>2,7</sup> Monitoring
	Removable <sup>2,4</sup>	Total (Fixed + Removable) <sup>2,3</sup>	Removable <sup>2,4</sup>	Average Total (Fixed + Removable) <sup>2,3</sup>	Maximum Total (Fixed + Removable) <sup>2,3</sup>	
U-natural, U-235, U-238 and associated decay products	1,000	5,000	1,000	5,000	15,000	5,000
Transuranics, Ra-226, Ra- 228, Th-230, Th-228, Pa- 231, Ac-227, I-125, I-129	20	500	20	100	300	500
Th-nat, Th-232, Sr-90, Ra- 223, Ra-224, U-232, I- 126, I-131, I-133	200	1,000	200	1,000	3,000	1,000
Beta-gamma emitters (nuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above. <sup>3</sup> Includes mixed fission products containing Sr-90.	1,000	5,000	1,000	5,000	15,000	5,000
Tritium organic compounds, surfaces contaminated by HT, HTO and metal tritide aerosols <sup>4</sup>	10,000	10,000	10,000	10,000	10,000	10,000

Notes:

1. The values in this Table apply to radioactive contamination deposited on, but not incorporated into the interior of the contaminated item. Where surface contamination by both alpha- and beta-gamma-emitting nuclides exists, the limits established for the alpha- and beta-gamma-emitting nuclides apply independently.
2. As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background,  $\epsilon$ , efficiency, and geometric factors associated with the instrumentation.
3. The levels may be<sup>6</sup> averaged over one square meter provided the maximum surface activity in any area of 100 cm<sup>2</sup> is less than three times the value specified. For purposes of averaging, any square meter of surface shall<sup>6</sup> be considered to be above the activity guide G if:
  - (1) From measurements of a representative number n of sections it is determined that

## RADIOLOGICAL WORK PERMIT

### GENERAL DESCRIPTION

Status: ACTIVE	Start Date: 05-MAY-2000	End Date: 01-JAN-2001
Type: SPECIFIC	Area: N/A	Outage Related: N
Task: ROUTINE OPERATIONS AND SURVEILLANCE		PSE: N
HP Coverage: INTERMITTENT		Authorization Type: ALL
ALARA Review Number: 00-371-011		Primary Work Document: SEE BELOW
Person-mrem Estimate:		Person-Hrs Estimate:
DAC-hrs Tracked: Y		
Work Area Description: Building 371		

### DESCRIPTION OF WORK TO BE PERFORMED

Routine Wet Combustible repack operations primarily in rooms 3701 & 3206: Work includes drum movements, glovebox work, bag-ins/outs, opening/repacking drums, packaging waste, minor deconning, counting/transfer of Residues, GAC pad ops, drum venting  
 Procedures 4-P23-WO-1105, 4-D99-WO-1100, 1-PRO-015-NMT-003, 4-30000-FO-0001, 4-V97-GLBX-MTCE, PRO 374 Repack, PRO-823-REPACK 371, 00-371-214, PRO-602-GAC-001

Supervisors: Mark Pitts (Ext.6049/212-5601), Tim Leckbee (Ext.2925/212-4641), Dave Erickson (Ext.3476/212-2272)

### RADIOLOGICAL CONDITIONS OF WORK AREA

RAD LEVELS	Survey No.: N/A	by: N/A	on:
Survey Information:			
Alpha Removable in dpm/100cm <sup>2</sup> : RBAs <20, CAs <2000, HCAs >2000			
Airborne Radioactivity Levels: non-ARAs <0.3 DAC, ARAs <800 DAC			
Dose Rate: <100 mrem/hr - Always check current area surveys			
Comment: This RWP allows work in RBAs, CAs, HCAs, RAs, HRAs and ARAs.			

### DOSIMETRY REQUIREMENTS

EPD	SRD
TLD	WRIST DOSIMETER

### RESPIRATORY PROTECTION REQUIREMENTS

Respiratory Protection: CONDITIONAL  
 Respirator Types:

APR	Air Purifying Respirator
PAPR	Powered Air Purifying Respirators



# COPY

Unit: 1  
Permit Number: 00-371-0089  
Revision Number: 2  
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## RADIOLOGICAL WORK PERMIT

### Instructions/Protective Clothing

#### 1 PROTECTIVE CLOTHING:

RBAs- Modesty or Personal Clothing  
CAs- Cotton liners, Rubber gloves,  
Shoe covers, Rubber overshoes, Anti-C  
coveralls  
HCAs- Cotton liners, 2pr Rubber  
gloves, Shoe covers, 2pr Rubber  
overshoes, 2pr Anti-C coveralls

Coverage:

#### 2 PROTECTIVE CLOTHING

2pr of surgeon gloves may be substituted for cotton liners and rubber gloves (innermost pair taped to sleeves). Additional glovebox glove protection should be used per I.H. direction when handling sharp items.

Coverage:

#### 3 PROTECTIVE CLOTHING

509 Glovebox work- Cotton liners, rubber gloves taped at sleeves and Lab coats (Company issued Modesty clothing shall be worn under Lab Coats).

Coverage:

#### 4 PROTECTIVE CLOTHING

Nitrile/other chemical resistant gloves may be substituted for rubber gloves per IH/RE direction. Inner Nitrile/other taped with 2nd pair of rubber gloves for glovebag transfers/sleeve unloading of drums & bag cuts.

Coverage:

#### 5 PROTECTIVE CLOTHING

RM 3204A C-CELL (HCA/ARA)- Double set of Anti-Cs (outer pr Tyvek or Saranex for decon work), Inner Nitrile gloves (taped), 2nd pr rubber Anti-C gloves, and multiple surgeon gloves, 2pr shoe covers & rubber overshoes

Coverage:

#### 6 PROTECTIVE CLOTHING

Arm sleeves and additional gloves are required for HCA work, if liquids are likely, and for deconning.

Coverage:

#### 7 Respiratory protection and a hood (taped to respirator) shall be worn in RAs.

AC hour tracking will be done for personnel who wear PAPRs when use of PAPRs is required by Rad Ops.

Coverage:

DC-04

7.1 Glovebox Glove Inspection (continued)

- [10] Visually inspect the internal surfaces of each glove for:
- Layer separations.
  - Cuts.
  - Natural degradation.
  - Cracks.
  - Stiffness.
  - Punctures.
  - Splits.
  - Obvious physical signs of deterioration.
  - Discoloration.
  - Surface deposits/debris.
- [11] Monitor the forearm and gloved hand with the alpha-met, Bicron, or combo, as applicable, if available, upon completing interior inspection of the glovebox glove in accordance with 3-PRO-165-RSP-07.02, Contamination Monitoring Requirements.
- [12] IF an operable alpha-met, Bicron, or combo, as applicable, is not available, THEN contact and direct an RCT to survey forearm and gloved hand for contamination.
- [13] IF the glovebox glove is contaminated,  
THEN:
- [A] Decontaminate in accordance with 4-30000-FO-0001, Decontamination.
  - [B] Document in the Comments section of Appendix 6.
  - [C] Document the glove condition in accordance with PRO-E30-SSOC-GB-001, SSOC Glovebox Gloves, Boots, and O-Ring Bags.
- [14] IF the glovebox gloves have a removable amount of contamination, and cannot be decontaminated,  
THEN change the glove in accordance with Section 9: Changing Glovebox Gloves, and place a check (✓) in the Gloves Changed column on Appendix 6.

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## PART 6 Special Applications

This Part provides supplemental information to augment the basic requirements of the Manual. Written guidance and requirements contained within DOE documents, consensus standards or Federal regulations that delineate specifics for each application are referenced.

Articles 361 through 363 of this Part are applicable to those facilities where the majority of the work or operations involve the subject radionuclide as the significant source term. This Part is not intended to apply to facilities that use the subject radionuclides in limited or tracer amounts, such as analytical laboratories.

### ~~361 Plutonium Operations~~

There is the perception that exposure to small quantities of plutonium presents greater risk than exposure to other radionuclides. Low levels of plutonium in the body are difficult to measure and biological removal processes for plutonium are slow. For these reasons:

~~1.~~ Primary emphasis **shall**<sup>1</sup> be placed on engineered features to contain plutonium and to prevent airborne and surface contamination.

~~2.~~ "Health Physics Manual of Good Practices for Plutonium Facilities," PNL-6534, is intended for application to production facilities and **should be**<sup>1</sup> considered in development of procedures for plutonium operations.

### 362 Uranium Operations

Natural, depleted, and low-enriched uranium are unusual in that their chemical toxicity is more limiting in the human body than their radioactivity. Also, processed uranium sometimes contains transuranic and other radionuclides from recycled materials.

"Health Physics Manual of Good Practices for Uranium Facilities," EG&G-2530, is intended for application to production facilities, and **should**<sup>1</sup> be considered in development of procedures for uranium operations.

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## PART 4 Radiological Work Controls

### 341 Requirements

1. Radiological work activities **shall**<sup>1</sup> be conducted as specified by the controlling technical work document and Radiological Work Permit.
2. Prerequisite conditions, such as tag-outs and system isolation, **should**<sup>1</sup> be verified in accordance with the technical work documents before work is initiated.
3. *During routine operations, the combination of design features and administrative control procedures shall*<sup>2</sup> *provide that:*
  - a) *The anticipated magnitude of the total effective dose equivalent shall not*<sup>3</sup> *exceed 5 rems (0.05 sievert) in a year;*
  - b) *The anticipated magnitude of the committed dose equivalent to any organ or tissue, plus any deep dose equivalent from external exposure, shall not*<sup>4</sup> *exceed 50 rems (0.5 sievert) in a year; and*
  - c) *Exposure levels are as low as reasonably achievable.*
4. *Compliance with the requirements listed in 3. above shall*<sup>5</sup> *be demonstrated by appropriate monitoring pursuant to the provisions of 10 CFR 835, Subpart E as listed in Articles 511 and 521.*

### 342 Work Conduct and Practices

1. Contamination levels caused by ongoing work **shall**<sup>1</sup> be monitored and maintained ALARA.  
  
**Work should**<sup>1</sup> be curtailed and decontamination performed at preestablished levels, taking into account worker exposure.
2. Tools and equipment **should**<sup>2</sup> be inspected to verify operability before being brought into Contamination, High Contamination or Airborne Radioactivity Areas.
3. The use of radiologically clean tools or equipment in Contamination, High Contamination or Airborne Radioactivity Areas **should**<sup>3</sup> be minimized by the implementation of a contaminated tool crib in accordance with Article 442.5.



4.1 Glovebox Survey Inspection (continued)

DCF #1

- Punctures
- Stiffness
- Splits
- Cracking
- Deteriorating glove, boot, and o-ring bag material
- Date on the o-ring bag that is less than 5 years old
- Flexibility of the boot
- Any other obvious physical sign of glove, boot and o-ring bag deterioration

[4] IF the examination or survey revealed any problems,

THEN:

DCF #3

- [A] Take appropriate actions for the problem identified including donning respiratory protection.
- [B] Complete the Glove Problem Notification (GPN) tag, see Appendix 2.
- [C] Remove bottom stub from the GPN tag.
- [D] Attach remainder of GPN tag over the glove port in question.
- [E] Deliver the completed stub from the GPN tag to RS Supervision for further processing.

**RS Supervision**

- [5] Act on open GPNs as follows:
  - [A] Notify the glovebox custodian of the exact nature of the problem.
  - [B] Forward the GPN stub to the glovebox custodian for further action.
  - [C] Issue a Radiological Improvement Report in accordance with 1-H02-HSP-03.02, as needed.

- remove material that has been read by designated personnel from the required reading file. Such material is placed in a reference file. After a year, disposition items in the reference file in accordance with 1-V41-RM-001, Records Management Guidance for Records Sources

## 7. INSTRUCTIONS - CONTROLLING SYSTEM OPERABILITY

### A. Status Control

Good operating practice includes operations personnel knowing the status of equipment and systems. Changes in major equipment and system operation/configuration need to be communicated shift to shift through shift relief and turnover and by maintaining accurate status, whether on status boards or computer displays. Maintaining accurate status is a key element of operations formality. Changes in equipment and component status will occur regularly in operational facilities. Many will be related to deficiencies which result in placing items out-of-service for repair. Many will be due to placing items back in service. Others include component and system start-up, shutdown, and termination and suspension of operations in accordance with Section 7.G. requirements, etc.

There may also be instances when facility management desires to temporarily discontinue, temporarily halt, stop, or curtail an operational activity which does not involve suspension or termination as specified in Section 7.G. In these instances, the SM **SHALL** clearly identify the status of the activity in the SM log and on status displays. Included in the SM log entry will be the boundaries, controls established, specification of what can/cannot be conducted in the affected area, postings needed, and the requirements to return to former status. Documentation of actions accomplished to return to the former status, and the status change declaration, **SHALL** be entered in the SM log.

DCF-004

- whenever trainees operate equipment, a qualified (OJT) training instructor directly supervises and observes the trainee and is in position to intervene or assume control, if necessary
- OJT training instructors are required to meet the requirements of the RFETS TUM
- until trainees have demonstrated adequate understanding of an operation, trainees are required to discuss the safety cautions and notes, and procedural steps with the (OJT) training instructor prior to performing the operation
- trainees demonstrate actions to be performed by identifying switches, valves, and breakers that are to be manipulated prior to performing the operation
- when trainees record equipment parameters on round sheets or in logs, the (OJT) training instructor verifies that the recorded information is correct by initialing the entry
- the trainee and (OJT) training instructor discuss any out-of-specification readings and the consequences of allowing the condition to continue
- trainees **SHALL not** make independent decisions or take actions that could affect facility safety
- the Evolution Supervisor observes the maximum trainee-to-instructor ratio limit established for facility operation

**(3) Abnormal and Emergency Conditions**

over

Trainee operation of equipment **SHALL** be suspended during unanticipated or abnormal events, accident conditions, or when suspension is necessary to ensure safe and reliable facility operation.

During abnormal or emergency conditions, trainees **Should** provide assistance at the discretion of the qualified operator.

(4) Documentation of On-Shift Training

- on-shift training shall be documented in compliance with the RFETS TUM

DCF-004

D. **Required Reading Program for Operations and Support Organizations**

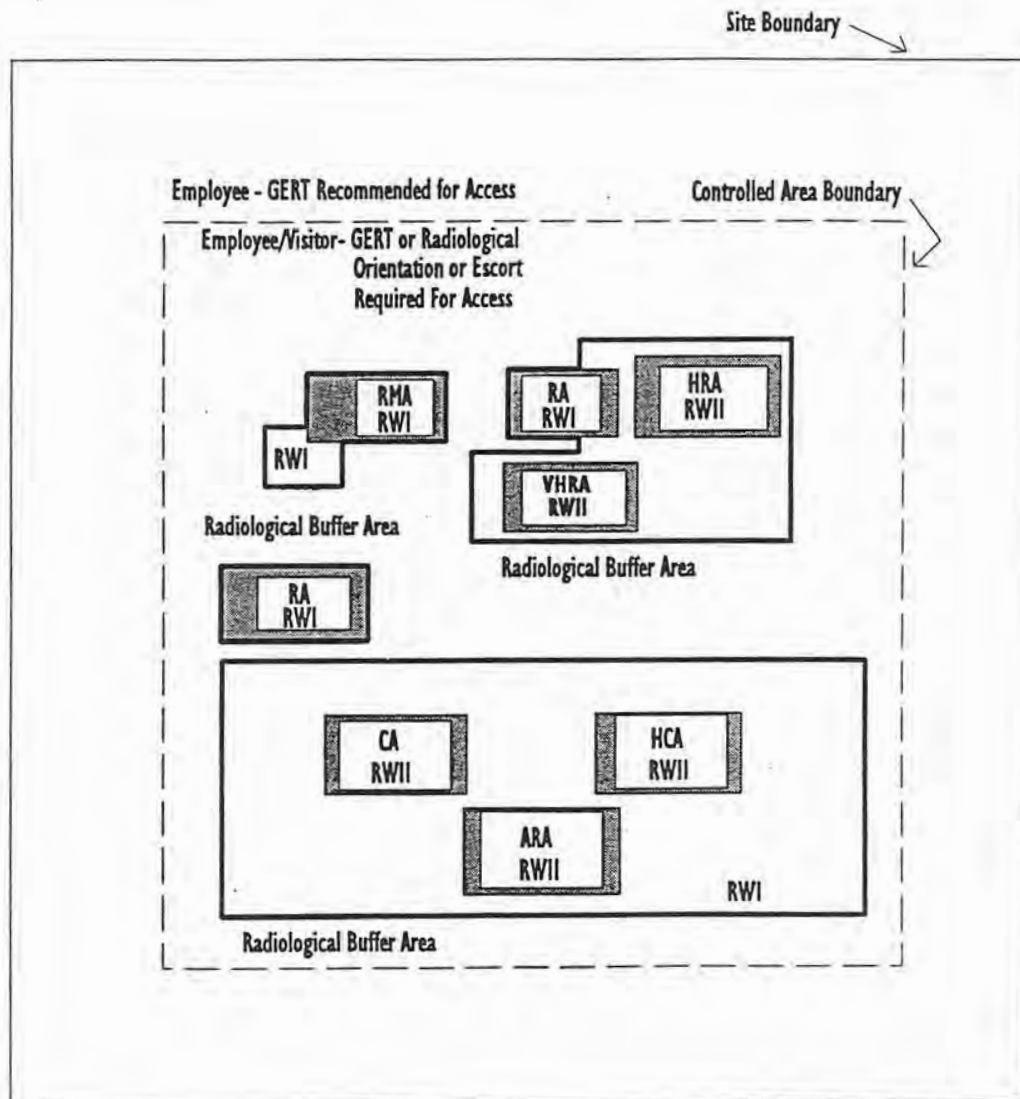
(1) Program Elements

A required reading file **SHALL** be established to ensure individuals are made aware of information that is:

- important to safe and efficient operation of their work station
- important to facility safety
- an applicable occurrence or Lessons Learned
- a change to a procedure or other document affecting systems or equipment operated by facility operations or support personnel

The required reading file contains:

Figure 2-1 Establishing Posted Areas



- |         |   |                                   |
|---------|---|-----------------------------------|
| Legend: | GERT - General Employee Radiological Training | HRA - High Radiation Area         |
|         | RWI - Radiological Worker I                   | VHRA - Very High Radiation Area   |
|         | RWII - Radiological Worker II                 | CA - Contamination Area           |
|         | RMA - Radioactive Material Area               | HCA - High Contamination Area     |
|         | RA - Radiation Area                           | ARA - Airborne Radioactivity Area |

**Table 2-4 Criteria for Posting Contamination, High Contamination and Airborne Radioactivity Areas**

<i>AREA</i>	<i>CRITERIA</i>	<i>POSTING</i>
<i>Contamination</i>	<i>Levels (dpm/100 cm<sup>2</sup>) &gt; 1 time but ≤ 100 times Table 2-2 values</i>	<i>"CAUTION, CONTAMINATION AREA"</i>
<i>High Contamination</i>	<i>Levels (dpm/100 cm<sup>2</sup>) &gt; 100 times Table 2-2 values</i>	<i>"DANGER, HIGH CONTAMINATION AREA" "RWP Required for Entry"</i>
<i>Fixed Contamination</i>	<i>No removable contamination and total contamination levels &gt; Table 2-2 Column 3 values</i>	<i>"CAUTION, FIXED CONTAMINATION"</i>
<i>Soil Contamination</i>	<i>Contaminated soil not releasable in accordance with DOE 5400.5</i>	<i>"CAUTION, SOIL CONTAMINATION AREA"</i>
<i>Airborne Radioactivity</i>	<i>Concentrations (μCi/cc) &gt; 10% of any DAC value</i>	<i>"CAUTION, AIRBORNE RADIOACTIVITY AREA" "RWP Required for Entry"</i>

If an evaluation indicates that an area wiped is contaminated, a thorough contamination swipe survey **should**<sup>5</sup> be performed.

8. Areas identified as either contaminated with, or having the potential for being contaminated with, highly radioactive particles ("hot particles") **should**<sup>6</sup> be surveyed weekly.

These areas **should**<sup>7</sup> be surveyed at least daily during periods of work that may result in the generation of hot particles.

Special swipe techniques to collect hot particles, such as tape and large area wipes, **should**<sup>8</sup> be used.

### **555 Airborne Radioactivity Monitoring**

1. In addition to the requirements of Article 551, air monitoring equipment **should**<sup>1</sup> be used in situations where airborne radioactivity levels can fluctuate and early detection of airborne radioactivity could prevent or minimize inhalation of radioactivity by personnel.

Selection of air monitoring equipment **should**<sup>2</sup> be based on the specific job being monitored. Air monitoring equipment includes portable and fixed air sampling equipment and continuous air monitors.

2. *Air sampling **shall**<sup>1</sup> be performed in occupied areas where, under typical conditions, an individual is likely to receive an annual intake of 2 percent or more of the specified Annual Limit of Intake (ALI) values. For a given radionuclide and lung retention class, the ALI is the product of the DAC listed in 10 CFR 835 Appendix A and the constant  $2.4 \times 10^9$  ml. Samples **shall**<sup>2a</sup> be taken as necessary to detect and evaluate the level or concentration of airborne radioactive material at work locations. An annual intake of 2 percent of a specified ALI, (40 DAC hours), generally represents a committed effective dose equivalent to a person of approximately 100 mrem.*
3. *Real-time air monitoring, using continuous air monitors as defined in 10 CFR 835 § 835.2, **shall**<sup>2</sup> be performed in normally occupied areas where an individual is likely to be exposed to a concentration of airborne radioactivity exceeding 1 DAC as specified in Appendix A of 10 CFR 835 or where there is a need to alert potentially exposed individuals to unexpected increases in the airborne radioactivity levels. A person exposed continuously to a concentration of radioactivity in air of 1 DAC for 1 work week would generally receive a committed effective dose equivalent of approximately 100 mrem.*

- identify hazards, and hazardous materials associated with the evolution. This identification includes nearby hazardous materials, and other activities which may be impacted by the evolution
- identify potential "failure points" in the evolution that could result in the release of hazardous material. Failure points may include valves, test equipment connection points, gauges, hoses, tubing, movement of hazardous materials, etc.
- identify controls for prevention/minimization of release, and for controlling hazards. Controls include physical barriers and administrative controls
- identify hazardous work situations (such as elevated work, working on electrical equipment, confined space entry, working in heat stress or cold stress conditions, etc.) and appropriate safety precautions to minimize risk
- determine the pre-planned response to be taken in the event that an unplanned release or other emergency occurs

The Evolution Supervisor may assign Subject Matter Experts to cover their areas. For example, an Industrial Hygienist to discuss hazardous materials, and the Criticality Safety Officer (CSO) or a Criticality Engineer to discuss the criticality safety analyses and nuclear hazards, etc.

### (3) Conducting the PEB

The Evolution Supervisor conducts the PEB according to the following guidelines:

- ensures that security and training escorts are assigned and instructed on their responsibilities
- discusses limitations on trainees operating equipment/taking rounds and making log entries unless directly supervised by the qualified OJT instructor



- ensures that a sufficiently comprehensive briefing of the evolution is conducted, and that applicable items from Appendix 4, Pre-evolution Briefing Record, and from Appendix 5 are discussed. **Hazards, controls, RWPs, and potential upset conditions SHALL receive emphasis. The Evolution Supervisor is responsible to decide which briefing check-off list items are covered and which are not applicable**
- briefs the evolution to be conducted in sufficient detail to ensure all participants understand the evolution and their role. Covers work packages or procedures to the depth necessary to accomplish this
- briefs changes to the procedures or work packages relevant to the activity which occurred since the activity was last conducted
- ensures understanding of the evolution by participants by asking open ended questions regarding their roles and responsibilities, and actions to take if problems or upset conditions occur
- documents the briefing using Appendix 4, and forwards the completed Appendix 4 to the Evolution Supervisor's supervisor for filing, unless it is retained in a work package
- repeats the PEB when any of the following occur:
  - shift change for multi-shift evolutions
  - personnel changes considered significant by the Evolution Supervisor or SM
  - evolution is stopped for more than forty-eight (48) hours
  - the scope of the evolution changes
  - intent changes are made to the procedures being used for the evolution

### 323 Radiological Work Permit Preparation

1. The responsibility for ensuring adequate planning and control of work activities resides with line management. The lead work group responsible for the planned activity or for the area **should**<sup>1</sup> initiate the preparation of the RWP.
2. RWPs **shall**<sup>1</sup> be reviewed and approved by the Radiological Control Organization.
3. The RWP **shall**<sup>2</sup> be based on current radiological surveys and anticipated radiological conditions.
4. The RWP **shall**<sup>3</sup> be approved by the supervisor responsible for the work or area and the appropriate Radiological Control supervisor.

Revisions or extensions to RWPs **shall**<sup>4</sup> be subject to the same approval process.

### 324 Pre-Job Briefings

1. At a minimum, pre-job briefings **should**<sup>1</sup> be held prior to the conduct of work anticipated to exceed the trigger levels identified in the ALARA Program Plan, prior to entry into a High Contamination Area or Airborne Radioactivity Area.
2. At a minimum, the pre-job briefing **should**<sup>2</sup> include:
  - a. Scope of work to be performed
  - b. Radiological conditions of the workplace
  - c. Procedural and RWP requirements
  - d. Special radiological control requirements
  - e. Radiologically limiting conditions, such as contamination or radiation levels that may void the RWP
  - f. Radiological Control Hold Points
  - g. Communications and coordination with other groups

- 
- h. Provisions for housekeeping and final cleanup
  - i. Emergency response provisions.
3. Pre-job briefings **should**<sup>3</sup> be conducted by the cognizant work supervisor.
  4. Workers and supervisors directly participating in the job, cognizant Radiological Control personnel, and representatives from involved support organizations **should**<sup>4</sup> attend the briefing.
  5. A summary of topics discussed and attendance at the pre-job briefing **should**<sup>5</sup> be documented.  
This documentation **should**<sup>6</sup> be maintained with the technical work document.

### 325 Personal Protective Equipment and Clothing

1. Personnel **shall**<sup>1</sup> wear protective clothing during the following activities:
  - a. Handling of contaminated materials with removable contamination in excess of Table 2-2 levels
  - b. Work in contamination, high contamination, and airborne radioactivity areas.
  - c. *As directed by the Radiological Control Organization or as required by the RWP, protective clothing **shall**<sup>1a</sup> be required for entry to areas in which removable contamination exists at levels exceeding those specified in 10 CFR 835, Appendix D, as listed in Table 2-2, Summary of Contamination Values.*
2. Protective clothing and shoes designated for radiological control **shall**<sup>2</sup> be:
  - a. Marked in accordance with Article 461
  - b. Used only for radiological control purposes.
3. Protective clothing dress-out areas **should**<sup>1</sup> be established directly adjacent to the work area.

Workers **should**<sup>2</sup> proceed directly to the radiological work area after donning Personal Protective Equipment and Clothing.

Rocky Flats

**COPY**

# 1

Unit: 1  
Permit Number: 00-371-2000  
Revision Number: 1  
Page: 1 of 4

**RADIOLOGICAL WORK PERMIT**

**GENERAL DESCRIPTION**

Status: ACTIVE	Start Date: 26-APR-2000	End Date: 01-JAN-2001
Type: SPECIFIC	Area: N/A	Outage Related: N
Task: ROUTINE OPERATIONS AND SURVEILLANCE		PSE: N
HP Coverage: INTERMITTENT		Authorization Type: ALL
ALARA Review Number: N/A		Primary Work Document:
Person-mrem Estimate:		Person-Hrs Estimate:
DAC-hrs Tracked: N		
Work Area Description: Buildings 371 and 374		

**DESCRIPTION OF WORK TO BE PERFORMED**

Routine work located in RBAs, CAs, RAs and ARAs.

Breaches of radiologically contaminated systems CANNOT be performed under this RWP.

HCA and similiar work CANNOT be performed under this RWP.

**DOSIMETRY REQUIREMENTS**

TLD

**RESPIRATORY PROTECTION REQUIREMENTS**

Respiratory Protection: CONDITIONAL  
Respirator Types:

APR	Air Purifying Respirator
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**BRIEFING REQUIREMENTS**

PRE-JOB BRIEFING	
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**TRAINING REQUIREMENTS**

RadWorker II	Respirator - Air Purifying
General Employee Training	Bldg Orient. Tour 371
Bldg Orient. Tour 374	

## Response to JCUSC Safety Concern On GB-1509 Glove Changes

Rad Safety, PuSPS, and Wet Combustibles Management discussed this concern, and respectfully submit the following response.

When the GB-1509 glove contamination occurred, the prompt and correct *immediate* corrective actions were taken by Rad Safety, including:

- Immediate stopping of all GB-1509 Wet Combustible processing
- Immediate follow-up surveys by RCTs of gloves and the immediate GB-1509 work area
- Immediate Posting/Positive Controls of suspect areas around GB-1509
- Immediate Containment/Confinement of the affected areas of the affected glovebox and gloves

The immediate actions taken put the glovebox and room into a safe configuration. After this, several short-term compensatory measures were also observed until the gloves were actually changed to maintain the safety envelope around GB-1509 intact. These included:

- No Wet Combustible processing using GB-1509
- Notification of PuSPS management of the glove problem, and that there was not widespread contamination, only a localized problem with several gloves

It was and it still remains the joint prerogative of PuSPS Management and Wet Combustible Management who jointly own Room 3701 to determine (with the concurrence of Radiological Safety) that an immediate glove change on GB-1509 did not constitute an unacceptable, nor imminent radiological danger. It was then, and remains within the bounds of their authority to take appropriate corrective actions commensurate with the radiological risk, which they did.

It was jointly decided by PuSPS, Wet Combustibles and Radiological Safety that these gloves did not need to be changed *immediately*, although they should be changed promptly, which did occur that same evening, permanently correcting the problem.