

**RO SRO Job Performance Measure "D"**

Facility: **Vogtle**

Task No: N/A

Task Title: **Determine Minimum Protective Clothing Requirements and Total Projected Dose, and Determine if task can be completed without exceeding any Radiological Limits**

JPM No: V-NRC-JP-00930-HL-17

K/A Reference: G2.3.7 (3.5 / 3.6)

Examinee: \_\_\_\_\_

NRC Examiner: \_\_\_\_\_

Facility Evaluator: \_\_\_\_\_

Date: \_\_\_\_\_

Method of testing:

Simulated Performance \_\_\_\_\_

Actual Performance \_\_\_\_\_

Classroom \_\_\_\_\_

Simulator \_\_\_\_\_

Plant \_\_\_\_\_

**Read to the examinee:**

I will explain the initial conditions, which steps to simulate or discuss, and will provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**Initial Conditions:** Unit 1 is at 100% power.

You have been assigned to close and danger tag 1-1204-U4-111 in Unit 1 containment.

You have been briefed by HP on the limitations of RWP 12-0101.

HP has permitted the minimum protective clothing requirements stated in the RWP.

Your accumulated dose for this year to date is 960 mrem.

The TOTAL round-trip TRANSIT dose will be 6 mrem.

The TOTAL time at the job site will be 5 minutes.

Assume neutron dose exposure is negligible.

**Initiating Cue:** Using RWP 12-0101 and the survey map of the Unit 1 containment work area, determine and document in the table below:

- a. Your protective clothing requirements.
- b. Your projected total gamma dose.
- c. If you can or cannot perform the task without exceeding any limits. If not, then state the reason.

<b>Protective clothing requirements</b>	
<b>Projected total gamma dose</b>	
<b>Can you complete this task without exceeding any limits?</b>	<b>(CIRCLE ONE)</b> <b>YES</b> <b>NO</b>
<b>REASON, if applicable</b>	

**Task Standard:** Upon successful completion of this JPM, the examinee will correctly:

1. Identify the protective clothing requirements.
2. Calculate the projected total gamma dose.
3. Determine if the task can be performed without exceeding any limits, and if not, then state the reason.

**Required Materials:** Calculator  
Containment survey map  
RWP 12-0101  
NMP-HP-001, "Radiation Protection Standard Practices"

**General References:** None

**Time Critical Task:** No

**Validation Time:** 15 minutes

## Performance Information

***Critical steps denoted with an asterisk***

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**\* Determine protective clothing requirements.**

Refer to RWP 12-0101 "Protective Clothing Requirements", which states the minimum requirements for a "C" zone are booties, gloves, and a lab coat.

**Cue: If asked if the dress requirements were changed per HP direction, state "See initial conditions."**

**Standard: Correct protective clothing requirements determined.**

Comment:

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**\* Calculate projected total gamma dose.**

Using survey map, a dose rate of 84 mrem/hour at the valve is determined.

The tagging task will take 5 minutes.

$84 \text{ mrem/hour} (1 \text{ hour} / 60 \text{ minutes}) (5 \text{ minutes}) = 7 \text{ mrem}$  [no range on calculated value]

Transit dose of 6 mrem is added to calculated dose.

$7 \text{ mrem} + 6 \text{ mrem} = 13 \text{ mrem}$  [no range on calculated value]

**Standard: Projected total dose calculated to be 13 mrem.**

Comment:

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\* **Determine if the task can be performed without exceeding any limits**

From NMP-HP-001, the admin annual dose limit is 1000 mrem.

Total calculated annual dose would be 960 mrem + 13 mrem = 973 mrem (annual limit is not exceeded)

RWP 12-0101 task dose rate limit is 80 mrem/hour. Dose rate at valve is 84 mrem/hour on the survey map (task dose rate limit is exceeded).

RWP 12-0101 task dose limit is 15 mrem. Calculated dose received is 13 mrem (task dose limit is not exceeded)

NOTE TO EXAMINER: Examinee may indicate that 13 mrem exceeds the task dose limit since HP briefings require workers to notify HP when they reach 80% of their task dose limit (12 mrem for this task). This response is acceptable.

**Standard: Determination is made that the task can NOT be performed without exceeding a limit.**

Comment:

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\* **State the reason that the task was NOT permitted.**

Examinee identifies that the RWP task dose rate limit is exceeded (dose rate at valve is 84 mrem/hour with an RWP task dose rate limit of 80 mrem/hour)

NOTE TO EXAMINER: Examinee may indicate that 13 mrem exceeds the task dose limit since HP briefings require workers to notify HP when they reach 80% of their task dose limit (12 mrem for this task). This response is acceptable.

**Standard: Correct reason is provided for why the task can NOT be performed.**

Comment:

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**Terminating cue:** Student returns initiating cue sheet.

## KEY

Protective clothing requirements	<i>Booties</i> <i>Gloves</i> <i>Lab Coat</i>
Projected total gamma dose	<i>13 mrem</i>
Can you complete this task without exceeding any limits?	(CIRCLE ONE) YES <input checked="" type="radio"/> NO
REASON, if applicable	<i>RWP task dose rate limit of 80 mrem/hour is exceeded</i> NOTE: Examinee may indicate that 13 mrem exceeds the task dose limit since HP briefings require workers to notify HP when they reach 80% of their task dose limit (12 mrem for this task). This response is acceptable.

**Verification of Completion**

Job Performance Measure No. V-NRC-JP-00930-HL17

Examinee's Name:

Examiner's Name:

Date Performed:

Number of Attempts:

Time to Complete:

Question Documentation:

Question: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Response: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: \_\_\_\_\_

**Initial Conditions:** Unit 1 is at 100% power.

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Your accumulated dose for this year to date is 960 mrem.

The TOTAL round-trip TRANSIT dose will be 6 mrem.

The TOTAL time at the job site will be 5 minutes.

Assume neutron dose exposure is negligible.

**Initiating Cue:** Using RWP 12-0101 and the survey map of the Unit 1 containment work area, determine and document in the table below:

- a. Your protective clothing requirements.
- b. Your projected total gamma dose.
- c. If you can or cannot perform the task without exceeding any limits. If not, then state the reason.

<b>Protective clothing requirements</b>	
<b>Projected total gamma dose</b>	
<b>Can you complete this task without exceeding any limits?</b>	<b>(CIRCLE ONE)</b> <b>YES</b> <b>NO</b>
<b>REASON, if applicable</b>	



Site Overview

Survey # **146131**  
 Date **02/13/2012 13:37**  
 Status **Approved**  
 Submitted By **Hall, Robert**  
 Purpose **Specific Survey**  
 Remarks **U1 ECOS Venting**

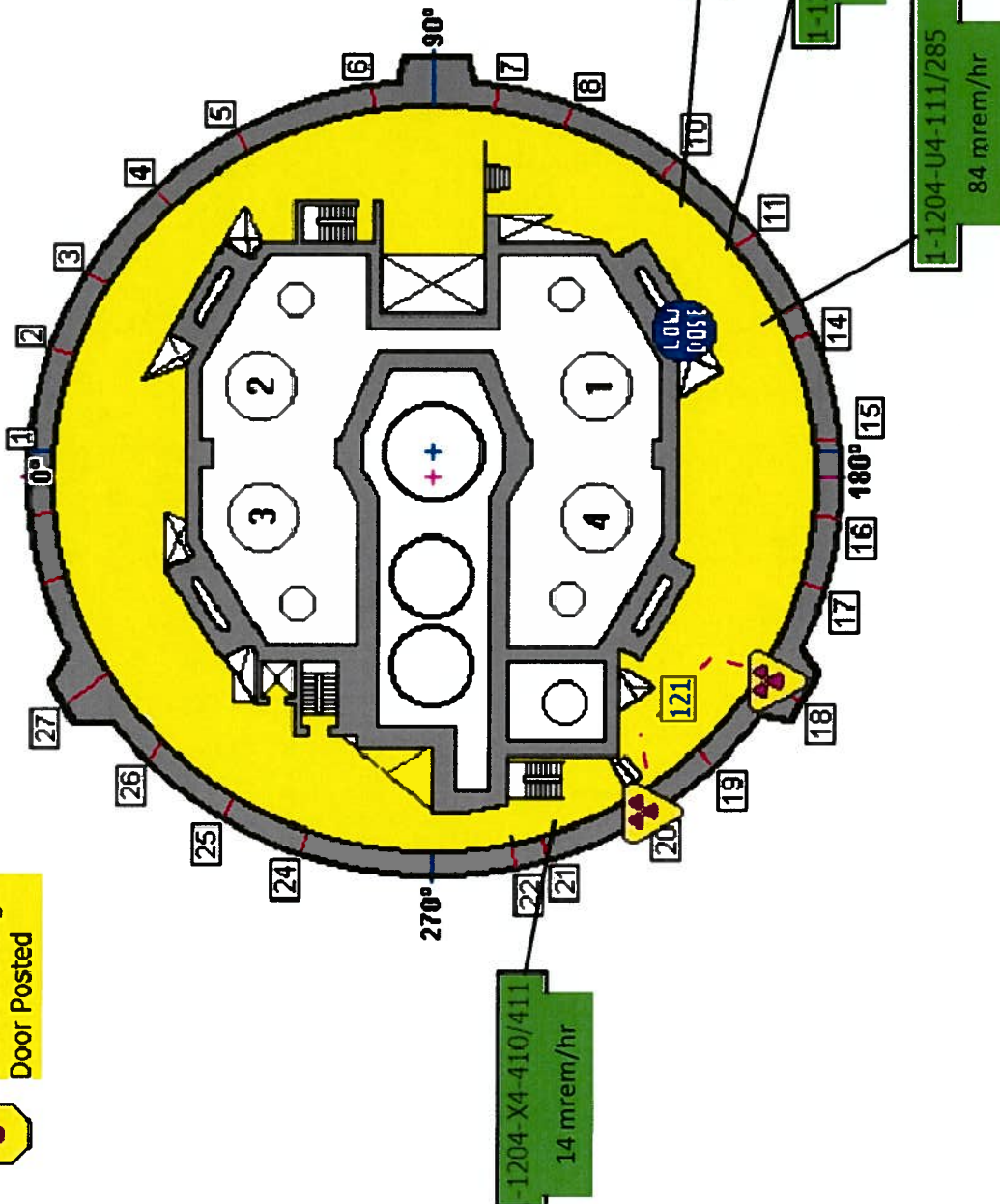
% Power	100
Rx Mode	1
H2 Inj Lvl	0
Void Lvl	0
System	System Running
Component	N/A
Max Rate	121 mrem/hr
Max Cntrm	1000 dpm/100 cm2
Svy Dose	4.10

Map Links

3	261'
2	238'
1	220'
<b>Au</b>	<b>210'</b>
<b>Al</b>	<b>197'</b>
<b>B</b>	<b>184'</b>
<b>C</b>	<b>171'</b>



**U-1 CTMT Cage Door Posted**



# Radiation Work Permit

Plant Vogtle

# 12-0101

ACTIVE

Rev

0

Unit

1

**Job Description** MINOR WORK TASK, OPS TOURS AND SURVEILLANCES IN UNIT ONE CONTAINMENT.

**Location** GENERAL ENTRY INTO UNIT 1 CONTAINMENT

**HP Coverage** CONTINUOUS  
**Authorization** SINGLE USE  
**Briefing** SINGLE USE

**Start Date** 1/1/2012  
**End Date** 12/31/2012 11:59:00 PM  
**Job Supv.** I KOCHERY  
**Ext.** 3229

## Radiological Conditions

AIRBORNE LEVELS: > 0.3 DAC PARTICULATE AND IODINE, >1.0 DAC NOBLE GAS  
CONTAMINATION : > 500,000 DPM/100CM2 BETA/GAMMA, >20 DPM/100CM2 ALPHA  
RAD LEVELS: > 1000 MREM/HR

## Dosimetry

OSLD & ED, RELOCATE ONLY PER HP

## Protective Clothing Requirements

MINIMUM REQUIREMENTS IN "C" ZONE  
BOOTIES/GLOVES/LAB COAT  
DRESS REQ. MAY BE CHANGED AS HP DIRECTS

## Respirators

NP  
PAPR  
SCBA  
Usage is Conditional per HP

## Tasks

Description	DAD Alarms	
	Dose (mr)	Rate (mr/h)
SURVEILLANCES/TRANSMITTER CALS	15	80
WALKDOWNS/INSPECTIONS	15	80
LLRTS	15	80
HP JOB COVERAGE	15	80
CORRECTIVE MAINTENANCE	15	80
PREVENTATIVE MAINTENANCE	15	80
OPERATIONS SUPPORT/TAGGING ACTIVITIES	15	80

## Instructions

- \* FOLLOW ALL HP INSTRUCTIONS. \* STAY IN DESIGNATED LOW DOSE AREAS WHENEVER POSSIBLE.
- \* NO ENTRY BEHIND BIOSHIELD IN RX MODES 1 OR 2. \* ALL PERSONNEL ARE TO REMAIN IN LINE OF SIGHT OF HP TECH WHEN RX IS IN MODES 1 OR 2.
- \* ALARA IS TO BE NOTIFIED IF ANY ONE OF THE FOLLOWING UNEXPECTED RAD CONDITIONS ARE ENCOUNTERED: 1) AREAS > OR = 250 MREM/HR GAMMA (OR)  
2) AREAS > OR = 100 MREM/HR NEUTRON WHEN COMPOSITE SURVEYS CAN NOT BE USED AND A NEUTRON SURVEY INSTRUMENT IS USED. \*AVOID HOT SPOTS.
- \* YOUR ENTRY SIGNATURE ON DATA SHEET 1 OF 00303-C INDICATES THAT YOU UNDERSTAND THAT MATERIAL TAKEN INTO CONTAINMENT MUST BE: (A) APPROVED (A PERMIT ISSUED PER PROCEDURE 00309-C) TO BE LEFT IN CONTAINMENT, OR  
(B) BE ATTENDED AT ALL TIMES AND CAPABLE OF BEING REMOVED IN ONE TRIP.
- \* YOUR EXIT SIGNATURE ON DATA SHEET 1 OF 00303-C SIGNIFIES THAT THERE IS NO LOOSE DEBRIS PRESENT IN ALL AREAS THAT YOU ENCOUNTERED THAT COULD BE TRANSPORTED TO THE CONTAINMENT SUMP AND CAUSE RESTRICTION OF THE ECCS PUMP SUCTIONS.
- \* IF THE ROBOT IS TO BE USED FOR INSPECTION INSIDE THE BIOSHIELD, THE POTENTIAL EXISTS THAT THE ROBOT MAY BE TIPPED OVER DUE TO THE FORCE OF BLOWN AIR FROM THE CONTAINMENT CIRCULATOR FANS.
- \* AS A PRECAUTION, HP SHOULD REQUEST FOR OPERATIONS TO TURN OFF THE CONTAINMENT CIRCULATOR FANS IN THE AFFECTED INSPECTION AREA WHENEVER THE ROBOT IS TO BE USED INSIDE THE BIOSHIELD.
- \* THE FANS SHOULD REMAIN OFF UNTIL THE INSPECTION IS COMPLETE.
- \* THE UNIT 1 CIRCULATOR FAN NUMBERS ARE AS FOLLOWS: 11503B7008 - WEST BIOSHIELD ENTRANCE, 11503B7004 - EAST BIOSHIELD ENTRANCE, 11503B7006 - BETWEEN LOOPS 1 & 4, AND 11503B7002 - BETWEEN LOOPS 2 & 3.



\* RESPIRATORY EQUIPMENT MAY BE USED DEPENDING ON RADIOLOGICAL CONDITIONS OR WORK EVOLUTIONS.

\* HP HAS STOP WORK AUTHORITY AS A CONTINGENCY WHEN RADIOLOGICAL CONDITIONS OR WORK PRACTICES DEVIATE SIGNIFICANTLY FROM PRE-JOB PLANNING AND/OR RWP.

\* UNLESS DIRECTED BY HP SUPERVISION, WORKERS WILL WEAR AN EPD EXTERNAL ALARMING MODULE DURING AT POWER CONTAINMENT ENTRIES.

LARA BRIEFINGS WILL CLARIFY RWP REQUIREMENTS FOR DOSE RATE SPECIFICATIONS IN THE IMMEDIATE WORK AREA.

Prepared

11/3/2011 10:11  
by IJGUY

Approved

12/15/2011 02:39  
by GBRENENB

Suspended

Terminated