

Job Specific Cover Sheet

Radiological Work Permit

RWP Unique Identifying Number 13-FTF-170	Revision Number 02
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Sign In Frequency: EACH ENTRY	Issue Date: 12/04/13	Expiration Date: 12/31/13
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Section I		
Work Req/Pkg No: 01199252	Location Region: N/A	Area: F
Procedure No: SW11.1-SUPPORT-4.2	Location ID: N/A	Facility: FTF
Project No: N/A	Location Sequence: N/A	Building: 241905
Estimated Job Duration (Days) 27	System: N/A	Requested By: Z2142
Component Type: N/A	Equipment Type: N/A	Tel/Pager No: 2-3011/18213
Component No: N/A	Equipment No: N/A	Date Requested: 12/04/13
Equipment/Component Name: N/A		

Job Description: Routine Non-Routine

Tanks 5 & 6 - Bulk grout placement activities to include ventilation installation/remove, tremie install/remove, demister replacement, camera install/remove, and coil grouting (01199252 & 01199254). Includes deconning and housekeeping activities.

Comments: Tanks 5 & 6 - Bulk Grout Placement Activities (01199252 & 01199254).

Section II		
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RWT Qualifications

ALARA Review Req'd Pre-Job Briefing Req'd Rad Worker I Rad Worker II

Radiological Conditions: TKFM-M-20130308-14, TKFM-M-20130128-11, TKFM-M-20130321-14
(Specify RLS No. or other sources used)

Dose Rates (mrem/hr) 1000 WB/ 1400 S/ 1600 E (Tk 5 Open Hole Riser); 40 Working Rate; 200 WB/ 2160 S/ 3550 E (Tk 6 Open Hole Riser); 10 WB/ 10 S/ 20 E (Tk 5 Open Hole Annulus)	Contamination Levels (per 100 cm ²)		Airborne Levels	
	<200 dpm α	<4.0	<input type="checkbox"/> DAC Pu	N/A <input type="checkbox"/> DAC U
	30 mrad/hr βγ	<4.0	<input checked="" type="checkbox"/> DAC-hr Pu	<input checked="" type="checkbox"/> DAC-hr U
	N/A dpm T ₃	<4.0	<input type="checkbox"/> DAC FP	N/A μCi/cc HTO
		<input checked="" type="checkbox"/> DAC-hr FP		

Special Precautions:

1) Don additional rubber/leather gloves & plastic shoe covers as approved by RCO. 2) Gloves prescribed in applicable procedures, hazard analysis and/or AHA may be substituted as outer protective gloves. 3) Cloth hood or skull cap shall be worn with radiological use hard hat when the nature of the work would not require protection for the head to prevent contamination. Skull cap may be used for sun protection when a cloth hood is not needed for contamination control.

Task Number(s): 1 (Job-Specific RWP's Only)
Task Specific: Pu Sr U Np Specialized RWT:
Bioassay Req'ts: Am T Chest Count WBC Not Req'd

Protective Clothing Requirements Indicate Number in Box		Dosimetry Requirements		Respiratory Protection
<input checked="" type="checkbox"/> 2 Coveralls	<input checked="" type="checkbox"/> 1 Cloth Hood	<input type="checkbox"/> Lab Coat	<input checked="" type="checkbox"/> UD-802 TLD	<input type="checkbox"/> 6 mil Plastic Suit
<input type="checkbox"/> Tyvek Coveralls	<input checked="" type="checkbox"/> 1 Pair Glove Liners	<input type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Mk2 EPD	<input type="checkbox"/> 9 mil Plastic Suit
<input checked="" type="checkbox"/> 2 Pair Gloves	<input checked="" type="checkbox"/> Other: See Special Precautions		<input type="checkbox"/> Mk2n2 EPD	<input type="checkbox"/> 12 mil Plastic Suit
<input checked="" type="checkbox"/> 1 Pair Booties			<input type="checkbox"/> SRS-912 TLD	<input checked="" type="checkbox"/> Full-Face Respirator w/ P100
<input checked="" type="checkbox"/> 1 Pair Rubber Shoe Covers			<input type="checkbox"/> MP-WB	<input type="checkbox"/> Fresh Air Hood
<input checked="" type="checkbox"/> 1 Pair Plastic Shoe Covers			<input type="checkbox"/> MP-EXT	<input type="checkbox"/> Other:
			Air Sample Req. <input checked="" type="checkbox"/>	<input type="checkbox"/> Not Required

Suspension Guides

Removable Contamination (per 100 cm ²)	2,000 dpm α	Working Dose Rate (mrem/hr)	3,300 Skin
	150 mrad/hr By		1,500 WB (Gamma + Neutron)
	N/A dpm T ₃		N/A Neutron
Airborne Concentration	40 DAC-hr PU/FP	Dose (mrem)	100 WB Dose Receive
	N/A DAC-hr N/A		

Section III			
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ALARA Approval: N/A	Date:	ALARA Approval designates that recommendations have been satisfactorily implemented or resolved per AHA ID No.:	TF-11696
Lead Work Group Approval:	Date:	Industrial Hygiene Approval: N/A	Date:
RCO Approval:	Date:	RWP Termination:	Date:

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RWP Continuation (Sheet A)

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Section II Continuation

Special Precautions (Continuation):

4) Air sampling required all tasks to verify engineering controls. 5) See attached EPD sheet for alarm set points. This RWP covers work package 01199252 tasks: 30 (TF-11696), 44 (TF-14095), 45 (TF014012), 53 (TF-15004) and work package 01199254 tasks: 18 (TF-12152), 54 (TF-14012), 55 (TF-14095), 62 (TF-15003).

Specific Radiological Conditions:

N/A

Radiological Control Operations Coverage Requirements:

Continuous

Initial

Timekeeper Required?

No Yes

If Yes, Stay Time Shall Be Estimated For Workers Based on Individual's Cumulative Dose.

Intermittent

At Completion

Section IV

Estimated Exposure Summary

Part 1 (To be completed by RWP Requester)			Part 2 (To be completed by RCO)					
No.	Job Breakdown by Task	RWP Man-hrs	Extremity mrem/hr	Skin mrem/hr	Penetrating mrem/hr	Man-rem Estimate		Extremity/Skin To Penetrating Ratio
						Extremity/Skin	Penetrating	
1	Work Activities in ARA/HRA/HCA (FF/EPD/AS)	4	40	40	40	0.16	0.16	1 : 1
2	Work Activities in ARA/HCA/RA (FF/AS/1PR)	6	10	10	10	0.06	0.06	1 : 1
3	Work Activities in HRA/CA (EPD/AS)	4	40	40	40	0.16	0.16	1 : 1
4	Work Activities in RA/CA (AS)	6	10	10	10	0.06	0.06	1 : 1
5	Work Activities in HCA/RA (EPD/AS)	6	5	5	5	0.03	0.03	1 : 1
6	Work Activities in VH-ARA/HCA/HRA (FF/EPD/AS)	6	5	5	5	0.03	0.03	1 : 1
7	Work Activities outside Tote-ARA/HCA/HRA (FF/EPD/AS)	6	5	5	5	0.03	0.03	1 : 1
8								: 1
9								: 1
10								: 1
11								: 1
12								: 1
13								: 1
14								: 1

Notes: (1) Refer to 5Q1.1-504, Section 5.2.5 to perform any calculations
 (2) Use OSR 4-639B if Section V task numbers exceed 14.

Estimated Total

0.53

Man-rem Limit

0.66

Actual Penetrating Man-rem for Job: _____

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RWP Continuation (Sheet C)

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Section II Continuation			
Task Number(s): 2 (Job-Specific RWPs Only)		Task Specific <input checked="" type="checkbox"/> Pu <input checked="" type="checkbox"/> Sr <input type="checkbox"/> U <input type="checkbox"/> Np	<input type="checkbox"/> Specialized RWT:
		Bioassay Req'ts: <input checked="" type="checkbox"/> Am <input type="checkbox"/> T <input type="checkbox"/> Chest Count <input type="checkbox"/> WB <input type="checkbox"/> Not Req'd	
Protective Clothing Requirements Indicate Number in Box <input checked="" type="checkbox"/> 1 Coveralls <input type="checkbox"/> Tyvek Coveralls <input type="checkbox"/> 2 Pair Gloves <input type="checkbox"/> 1 Pair Booties <input type="checkbox"/> 1 Pair Rubber Shoe Covers <input type="checkbox"/> 1 Pair Plastic Shoe Covers <input type="checkbox"/> 1 Cloth Hood <input type="checkbox"/> Lab Coat <input type="checkbox"/> 1 Pair Glove Liners <input type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> X Other: See Special Precautions		Dosimetry Requirements <input checked="" type="checkbox"/> UD-802 TLD <input type="checkbox"/> SRS-912 TLD <input type="checkbox"/> CND <input type="checkbox"/> Mk2 EPD <input type="checkbox"/> Mk2n2 EPD <input type="checkbox"/> MP-WB <input type="checkbox"/> MP-EXT Air Sample Req. <input checked="" type="checkbox"/> X	Respiratory Protection <input type="checkbox"/> 6 mil Plastic Suit <input type="checkbox"/> 9 mil Plastic Suit <input type="checkbox"/> 12 mil Plastic Suit <input checked="" type="checkbox"/> X Full-Face Respirator w/ P100 <input type="checkbox"/> Fresh Air Hood <input type="checkbox"/> Other: <input type="checkbox"/> Not Required
Suspension Guides			
Removable Contamination (per 100 cm²) 2,000 dpm α 500,000 dpm βγ N/A dpm T3		Working Dose Rate (mrem/hr) N/A Skin 100 WB (Gamma + Neutron) N/A Neutron	
Airborne Concentration 40 DAC-hr PU/FP N/A DAC-hr N/A		N/A	
Task Number(s): 3 (Job-Specific RWPs Only)		Task Specific <input type="checkbox"/> Pu <input type="checkbox"/> Sr <input type="checkbox"/> U <input type="checkbox"/> Np	<input type="checkbox"/> Specialized RWT:
		Bioassay Req'ts: <input type="checkbox"/> Am <input type="checkbox"/> T <input type="checkbox"/> Chest Count <input type="checkbox"/> WB <input checked="" type="checkbox"/> Not Req'd	
Protective Clothing Requirements Indicate Number in Box <input type="checkbox"/> 1 Coveralls <input type="checkbox"/> Tyvek Coveralls <input type="checkbox"/> 2 Pair Gloves <input type="checkbox"/> 1 Pair Booties <input type="checkbox"/> 1 Pair Rubber Shoe Covers <input type="checkbox"/> 1 Pair Plastic Shoe Covers <input type="checkbox"/> 1 Cloth Hood <input type="checkbox"/> Lab Coat <input type="checkbox"/> 1 Pair Glove Liners <input type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> X Other: Safety Glasses, See Special Precautions		Dosimetry Requirements <input checked="" type="checkbox"/> UD-802 TLD <input type="checkbox"/> SRS-912 TLD <input type="checkbox"/> CND <input checked="" type="checkbox"/> X Mk2 EPD <input type="checkbox"/> Mk2n2 EPD <input type="checkbox"/> MP-WB <input type="checkbox"/> MP-EXT Air Sample Req. <input checked="" type="checkbox"/> X	Respiratory Protection <input type="checkbox"/> 6 mil Plastic Suit <input type="checkbox"/> 9 mil Plastic Suit <input type="checkbox"/> 12 mil Plastic Suit <input type="checkbox"/> Full-Face Respirator w/ <input type="checkbox"/> Fresh Air Hood <input type="checkbox"/> Other: <input checked="" type="checkbox"/> X Not Required
Suspension Guides			
Removable Contamination (per 100 cm²) 2,000 dpm α 100,000 dpm βγ N/A dpm T3		Working Dose Rate (mrem/hr) 3,300 Skin 1,500 WB (Gamma + Neutron) N/A Neutron	
Airborne Concentration N/A DAC-hr N/A N/A DAC-hr N/A		Dose (mrem) 100 WB Dose Receive	
Task Number(s): 4 (Job-Specific RWPs Only)		Task Specific <input type="checkbox"/> Pu <input type="checkbox"/> Sr <input type="checkbox"/> U <input type="checkbox"/> Np	<input type="checkbox"/> Specialized RWT:
		Bioassay Req'ts: <input type="checkbox"/> Am <input type="checkbox"/> T <input type="checkbox"/> Chest Count <input type="checkbox"/> WB <input checked="" type="checkbox"/> Not Req'd	
Protective Clothing Requirements Indicate Number in Box <input type="checkbox"/> 1 Coveralls <input type="checkbox"/> Tyvek Coveralls <input type="checkbox"/> 2 Pair Gloves <input type="checkbox"/> 1 Pair Booties <input type="checkbox"/> 1 Pair Rubber Shoe Covers <input type="checkbox"/> 1 Pair Plastic Shoe Covers <input type="checkbox"/> 1 Cloth Hood <input type="checkbox"/> Lab Coat <input type="checkbox"/> 1 Pair Glove Liners <input type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> X Other: See Special Precautions		Dosimetry Requirements <input checked="" type="checkbox"/> UD-802 TLD <input type="checkbox"/> SRS-912 TLD <input type="checkbox"/> CND <input type="checkbox"/> Mk2 EPD <input type="checkbox"/> Mk2n2 EPD <input type="checkbox"/> MP-WB <input type="checkbox"/> MP-EXT Air Sample Req. <input checked="" type="checkbox"/> X	Respiratory Protection <input type="checkbox"/> 6 mil Plastic Suit <input type="checkbox"/> 9 mil Plastic Suit <input type="checkbox"/> 12 mil Plastic Suit <input type="checkbox"/> Full-Face Respirator w/ <input type="checkbox"/> Fresh Air Hood <input type="checkbox"/> Other: <input checked="" type="checkbox"/> X Not Required
Suspension Guides			
Removable Contamination (per 100 cm²) 2,000 dpm α 100,000 dpm βγ N/A dpm T3		Working Dose Rate (mrem/hr) N/A Skin 100 WB (Gamma + Neutron) N/A Neutron	
Airborne Concentration N/A DAC-hr N/A N/A DAC-hr N/A		N/A	

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RWP Continuation (Sheet C)

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Section II Continuation			
Task Number(s): 5 (Job-Specific RWPs Only)		Task Specific <input type="checkbox"/> Pu <input type="checkbox"/> Sr <input type="checkbox"/> U <input type="checkbox"/> Np Bioassay Req'ts: <input type="checkbox"/> Am <input type="checkbox"/> T <input type="checkbox"/> Chest Count <input type="checkbox"/> WB <input checked="" type="checkbox"/> Not Req'd	
Protective Clothing Requirements Indicate Number in Box <input checked="" type="checkbox"/> 1 Coveralls <input type="checkbox"/> Cloth Hood <input type="checkbox"/> Lab Coat <input type="checkbox"/> Tyvek Coveralls <input checked="" type="checkbox"/> 1 Pair Glove Liners <input type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> 2 Pair Gloves <input checked="" type="checkbox"/> Other: See Special Precautions <input checked="" type="checkbox"/> 1 Pair Booties <input checked="" type="checkbox"/> 1 Pair Rubber Shoe Covers <input checked="" type="checkbox"/> 1 Pair Plastic Shoe Covers		Dosimetry Requirements <input checked="" type="checkbox"/> UD-802 TLD <input checked="" type="checkbox"/> Mk2 EPD <input type="checkbox"/> SRS-912 TLD <input type="checkbox"/> Mk2n2 EPD <input type="checkbox"/> CND <input type="checkbox"/> MP-WB <input type="checkbox"/> MP-EXT Air Sample Req. <input checked="" type="checkbox"/>	
Respiratory Protection <input type="checkbox"/> 6 mil Plastic Suit <input type="checkbox"/> 9 mil Plastic Suit <input type="checkbox"/> 12 mil Plastic Suit <input type="checkbox"/> Full-Face Respirator w/ <input type="checkbox"/> Fresh Air Hood <input type="checkbox"/> Other: <input checked="" type="checkbox"/> Not Required			
Suspension Guides			
Removable Contamination (per 100 cm²) 2,000 dpm α 500,000 dpm βγ N/A dpm T3		Working Dose Rate (mrem/hr) 1,500 Skin 150 WB (Gamma + Neutron) N/A Neutron	
Airborne Concentration N/A DAC-hr N/A N/A DAC-hr N/A		Dose (mrem) 50 WB Dose Receive	
Task Number(s): 6 (Job-Specific RWPs Only)		Task Specific <input checked="" type="checkbox"/> Pu <input checked="" type="checkbox"/> Sr <input type="checkbox"/> U <input type="checkbox"/> Np Bioassay Req'ts: <input checked="" type="checkbox"/> Am <input type="checkbox"/> T <input type="checkbox"/> Chest Count <input type="checkbox"/> WB <input type="checkbox"/> Not Req'd	
Protective Clothing Requirements Indicate Number in Box <input checked="" type="checkbox"/> 2 Coveralls <input checked="" type="checkbox"/> 1 Cloth Hood <input type="checkbox"/> Lab Coat <input type="checkbox"/> Tyvek Coveralls <input checked="" type="checkbox"/> 1 Pair Glove Liners <input type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> 2 Pair Gloves <input checked="" type="checkbox"/> Other: See Special Precautions <input checked="" type="checkbox"/> 1 Pair Booties <input checked="" type="checkbox"/> 1 Pair Rubber Shoe Covers <input checked="" type="checkbox"/> 1 Pair Plastic Shoe Covers		Dosimetry Requirements <input checked="" type="checkbox"/> UD-802 TLD <input checked="" type="checkbox"/> Mk2 EPD <input type="checkbox"/> SRS-912 TLD <input type="checkbox"/> Mk2n2 EPD <input type="checkbox"/> CND <input type="checkbox"/> MP-WB <input type="checkbox"/> MP-EXT Air Sample Req. <input checked="" type="checkbox"/>	
Respiratory Protection <input type="checkbox"/> 6 mil Plastic Suit <input type="checkbox"/> 9 mil Plastic Suit <input type="checkbox"/> 12 mil Plastic Suit <input checked="" type="checkbox"/> Full-Face Respirator w/ P100 <input type="checkbox"/> Fresh Air Hood <input type="checkbox"/> Other: <input type="checkbox"/> Not Required			
Suspension Guides			
Removable Contamination (per 100 cm²) 2,000 dpm α 50 mrad/hr βγ N/A dpm T3		Working Dose Rate (mrem/hr) 1,500 Skin 150 WB (Gamma + Neutron) N/A Neutron	
Airborne Concentration 40 DAC-hr PU/FP N/A DAC-hr N/A		Dose (mrem) 100 WB Dose Receive	
Task Number(s): 7 (Job-Specific RWPs Only)		Task Specific <input checked="" type="checkbox"/> Pu <input checked="" type="checkbox"/> Sr <input type="checkbox"/> U <input type="checkbox"/> Np Bioassay Req'ts: <input checked="" type="checkbox"/> Am <input type="checkbox"/> T <input type="checkbox"/> Chest Count <input type="checkbox"/> WB <input type="checkbox"/> Not Req'd	
Protective Clothing Requirements Indicate Number in Box <input checked="" type="checkbox"/> 2 Coveralls <input checked="" type="checkbox"/> 1 Cloth Hood <input type="checkbox"/> Lab Coat <input type="checkbox"/> Tyvek Coveralls <input checked="" type="checkbox"/> 1 Pair Glove Liners <input type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> 2 Pair Gloves <input checked="" type="checkbox"/> Other: See Special Precautions <input checked="" type="checkbox"/> 1 Pair Booties <input checked="" type="checkbox"/> 1 Pair Rubber Shoe Covers <input checked="" type="checkbox"/> 1 Pair Plastic Shoe Covers		Dosimetry Requirements <input checked="" type="checkbox"/> UD-802 TLD <input checked="" type="checkbox"/> Mk2 EPD <input type="checkbox"/> SRS-912 TLD <input type="checkbox"/> Mk2n2 EPD <input type="checkbox"/> CND <input type="checkbox"/> MP-WB <input type="checkbox"/> MP-EXT Air Sample Req. <input checked="" type="checkbox"/>	
Respiratory Protection <input type="checkbox"/> 6 mil Plastic Suit <input type="checkbox"/> 9 mil Plastic Suit <input type="checkbox"/> 12 mil Plastic Suit <input checked="" type="checkbox"/> Full-Face Respirator w/ P100 <input type="checkbox"/> Fresh Air Hood <input type="checkbox"/> Other: <input type="checkbox"/> Not Required			
Suspension Guides			
Removable Contamination (per 100 cm²) 2,000 dpm α 10 mrad/hr βγ N/A dpm T3		Working Dose Rate (mrem/hr) 1,500 Skin 250 WB (Gamma + Neutron) N/A Neutron	
Airborne Concentration 40 DAC-hr PU/FP N/A DAC-hr N/A		Dose (mrem) 100 WB Dose Receive	

RWP Exposure Report

Report Generated

Search Criteria: RWP Number = 13-FTF-170

08/27/2014

<u>Rwp Number</u>	<u>Rev.</u>	<u>Est. Total Exposure (rem)</u>	<u>Act. Accu Exposure (rem)</u>
13-FTF-170	00	0.440	0.231
13-FTF-170	01	0.470	0.038
13-FTF-170	02	0.530	0.187
13-FTF-170	0	0.560	0.000
Total :		2.000	0.456