\ 	WVII CO WORK INSTRUCTION PACKAGE (WIP) FORM page 1 of 5
ECTION 1: Complete, with e	exception of Bi
. Work Control Number:	VFS-102005 4. Location: VIT *
. Originator's Name/ext:	Howard Payne 631
Labor Charge Number:	WH5210004 V-001, V-011, 7. Quality Level: C
Title: Preparation of	of Vitrification Vessels for Removal
Scope: SEE ATTACH	HED
ECTION 2: Complete prior to	o providing draft to reviewers. JAN 2 6 2004
0. Requirements Scre	een: Check appropriate block below to indicate if item is applicable.
	NO YES Action Required IT YES
Ja. Hazards Analysis	$\frac{1}{\sqrt{2}}$ Attach Form $\frac{1}{\sqrt{2}}$ Becord PW/P number prior to commencing work RP review
љ. RVVP	North
DC. IWP	Record IWP number prior to commencing work. CWB "2/2 7/04
Dd. ECN	100 × Arecord ECN Number.
De. TM DOR NS	$\sum_{n=1}^{\infty} \frac{p[w]}{p[w]} = \frac{p[w]}{p[w]}$ Record TM Number.
of GDP Frank St.	Enter GDP number and attach Form <u>WV-3522</u> .
g. Confined Space Entry	Attach Form <u>WV-3035</u> . IH&S review required.
h. Non-Routine/Critical Div	X Attach Form <u>WV-2171</u> . QA and IH&S review required.
)i. Welding	X Attach Form WV-1888. QA review required.
j. Waste generated	$\frac{1}{2} = \frac{1}{2} + \frac{1}$
k. ALARA trigger levels exc	ceeded X Attach Form WV-2404 & Form WV-2481, if applicable. RP review required.
n. HLW	D AND HLW Process & WQR Compliance Engineering and QA review required.
m.Pre-Job Brief	Phylic X Attach Form WV-3745.
. Walkdown Complete: (W	VGS' Signatures/Date)
2. Estimated/Actual CPS Labor Hours: Ma	SO40 DDWO/QA/RC Tech/IH&S Tech/ aint E/Maint I/Maint M/RHWF/Other/
ECTION 3: To be completed	1 prior to commencement of work. grater 55+8 DEBIGN MOR DC Gluma 1-22-
Reviewers: Check	boxes below indicating if review required.
(Signature/Date) ≥ Peer	Reviewer <u>maaguur 1121104</u> BPSO 577 121104
X CM	- KACvets DICPloetz V22/04 & QA Mandel MULTErry C 1/21/04
≍ SE _	Thx agness 1/21/04 BRP 1 Buil TO 1-21-04
X DDW	NO THE CALLET WMS TH HOW 1/21/04
⊠ EA	2 1/21/24 Other (Listic perm ( Wolmennic (SE 61/22/04
⊠ IH8	&S +Juny lumar if H 104 QUiner (List) M 404 WW 422 1.45104
Main	ht KI Orig / (when the work of the second sec
Is a USQD USQP Form	C. Curtis
(USQD Originator or Saf	fety Analyst Signature) (Printed Name) (Date)
If Yes, attach the comple	eted USQD (USQP Form WV-3306, Sections V, VI and VII).
5. Approval: (Signature/D	Date) FM THE STOR FOR THE HOLD A THOUSE AND FOR THE AND A FOR THE AND A FOR THE AND A FOR THE AND A A A A A A A A A A A A A A A A A A
CTION 4: To be completed	d upon completion of work or cancellation of WIP. (Attach lessons learned, if applicable, to WIP.)
. Work Completion Docur	No Check if WIP Canceled:
WGS USINA	TOC 9-13-04 Date 13/4/ Orin XAP and Date 10/4/2/
VVUO COVV	UN UNIT Date 19/10 Date 19/10
	The stutes the approximation

TITLE Prep	aration of Vit Vessel : Removal	_PAGE_ <del>J_</del> OF <u>S</u>
TASK	DESCRIPTION	SIGNATURE/DATE
1.0	GENERAL INFORMATION	
1.1	PURPOSE	
	General Requirements	
	The purpose of this work instruction is to describe methodology for	
	preparing vessels previously used for vitrification for removal from the	
	processing cell. It is intended to serve as guidance to put vessels in the	
	condition necessary for removal or transfer from the cell. It includes	
	activities such as draining, rinsing, pumping, drying, washing,	
	dismantlement and removal of ancillary equipment (e.g. agitators). It is	
	not intended to replace other documents currently in use, but rather to	
	reference and supplement them (e.g. transferring cooling water	
	coil/jackets contents to cell floor). Accommodations for vessels	
	requiring unique considerations and specialized work instruction will be	
	identified in an appendix to this WIP and documented on attachment A.	
	Vessels covered by this WIP may include as a minimum, the	
	concentrator feed make-up tank, (CFMT), melter feed hold tank	
	(MFHT), the submerged bed scrubber (SBS), the melter, as well as	
	various off-gas system components. Most evolutions contained within	
	this document have been previously performed under similar	
	circumstances e.g. tank transfers and additions. As a result, many steps	
	included have been extracted from applicable, previously used work	
	documents. e.g. WIPs, SOPs, etc	
	Upon transfer of material currently in the CFMT along with an	
	associated rinse, the CFMT will no longer receive material for transfer to	
	tank 8D-4. At that point, liquids resulting from in cell activity will be	
	pumped to the cell floor for transfer to SD-4 via the north sump.	
1.2	SCOPE	

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TITLE Prepa	TITLE Preparation of Vit Vessels for Removal			
TASK	DESCRIPTION	SIGNATURE/DATE		
	The scope of this WIP is intended to provide instruction as necessary to			
	put vessels in a condition appropriate for removal from the cell for			
	permanent or temporary disposition. This document will be revised as			
	necessary to ensure sufficient clarification of work activities is present to			
	perform work safely. Specific work activities may vary from vessel to			
	vessel with clarification provided via associated appendices.	ţ.		
	A) Transfer material currently located in the CFMT to tank 8D-4			
	B) Rinse the CFMT with utility water and transfer to 8D-4			
	C) Secure the CFMT to prevent further transfer of material to it.			
	D) Remove CFMT agitator and drain oil from drive assembly			
	E) Remove existing material from the MFHT			
	E) Rinse MFHT with utility water			
	F) Remove MFHT agitator and drain oil from drive assembly			
	G) Perform washing of selected vessel external surfaces			
2.0	PRECAUTIONS/LIMITATIONS			
2.1	Steps in these instructions shall be completed in an order sufficient to			
	prevent the inadvertent transfer of hazardous or radioactive material			
	outside the vitrification cell.			

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TITLE Prepa	ration of Vit Vessels for Removal	PAGE <u>4</u> OF <u>5</u>
TASK	DESCRIPTION	SIGNATURE/DATE
	This document does not include provisions for physically removing	
	vessel equipment from the cell. Liquids have been or will be sampled and	
	analyzed for proper disposition. This includes the identification of RCRA	
	constituents.	
	Additional references and clarification may be incorporated as	
	appendices as required to meet the scope.	
	Clarifications introducing new hazards shall be reviewed by the	
	cognizant subject matter experts as listed in the original Hazards Screen	0
	Checklist (WV-3909) and documented on attachment A.	BRANK
	Activities creating new waste i.e. addition of clean rinse water to a	1 W Por
	contaminated vessel are to be reviewed by EA prior to performance.	THIS KOON A WINK OF
3.0	PREREQUISITES	10. 10 13 UN PE
31	PERFORMANCE DOCUMENTS	Par Cook
	WV-3909. "HAZARDS SCREEN CHECKLIST"	H MARTINE K
3.2	MATERIAL/SPECIAL TOOLS AND EQUIPMENT	h pet KN
	As described within specific appendices	425 1
. 3.3	FIELD PREPARATIONS (MAY BE COMPLETED OUT OF	GDETHUS
	SEQUENCE)	Jever prove of
4.0	PERFORMANCE SECTION	Ctr P 1
		610 0/20/04
		MUIN

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ITLE Prepa	aration of Vit Vessels, for Removal	PAGEOF
TASK	DESCRIPTION	SIGNATURE/DATE
4.1	Record initial density $1.138$ and tank level $32.7$ of CFMTprior to starting agitator. $PD-4$ 16.5 STANT $28.2$ $71454$ Run the CFMT agitator for at least one hour prior to commencingtransfer activities.	PSO C. Eilouchoon
	Transfer contents of the CFMT to 8D-4 as described in appendix A1 and A2. These describe actions necessary for the jetting and receipt activities at the WTF. $LSUG_{L} MFTEE 1.7$ Transfer 200 gallons of rinse water per appendix B. Record CFMT tank level <u>6.4</u> and <u>2.15</u> density after adding rinse water. Repeat transfer of CFMT contents to 8D-4 per the above steps. Record CFMT tank level <u>1.7</u> and <u>1.15</u> density. Perform line back flush per attachment A-1. Record final CFMT tank level <u>1.7</u> and <u>1.08</u> density.	BEFORE 80-4.28.2 80 MA AFTER 80-4 29.5
5.0	POST MAINTENANCE TESTING NONE REQUIRED	
5.0 +	POST COMPLETION CONFIGURATION # 1/2101 ITEMS RETURNED TO INITIAL CONFIGURATION	2-3-4

## **Preparation of Vit Vessels for Review**

## Additions and Supplements to the Work Package

As described in the General Information section of the WIP, the additions of additional references or appendices shall be documented here.

Description of change and date; appropriate reviewers initial as required.

			<u> </u>			<u>_</u>		DOM
Description	Spvsr.	IH&S	QA	EA	WMS	FM	RP	OTHER
CLARIFICATION - DEOCEAURE			<u> </u>		1	110	1-27-04	h
DUGSNIT DROVIDE TIME FRAME						110	N/	.
TOR DOST TRANSFER LINE TLUSH (APOXA-25.2.1)						Res	33	120M
VITILITY WATER LOVE IS GROBEN V BEILIG THAWED, FLUSH WILL						the	. Dr	126.0
COMMENCE UPON COMPLETION F THAWING & DRICK TO						Ma	57	
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10.1 Transferring Wastes from CFMT to the Waste Tank Farm (ref. SOP 63-21 Rev.10) The following section provides instructions for transferring the contents of the CFMT to the WTF. [+] [1] Complete and sign off the following pretransfer items. These actions MUST be completed and signed off BEFORE transfer. WK  $\mathcal{M}_{\mathcal{I}}$  . Verify CFMT agitator has been operating for at least one hour before  $\mathcal{M}_{\mathcal{I}}^{\mathcal{A}}$  transfer by looking at HISTORIAN of II-0101 (CFMT\* Agitator Current) 1-26 or accordance with SOP 63-24. 1-22-04 Ensure HIC-0101 (CFMT Agitator On/Off) is ON. into -50 1-29-04 ر میں ا Ensure designated tank has sufficient void space remaining to accept 1-29-01 1-29-01 1.36-04 total transfer AND jet dilution. Later Ensure ALL system 55 transfer requirements are complete. Verify transfer permissive XI-0117A (CFMT-WTF\* 8D-4 Waste Transfer Ret) into. 0° of has been activated in VPCR. [2] Install or verify installed CFMT to Waste Tank Farm Transfer Jumper H-11-7360 (4223-V001-G2) per an approved work document. [3] Ensure vacuum break for Jet J-0117 is aligned at rack 3W6. C Open/check open 63-SH-G-1147 C Open/check open 63-VH-G-1155 758 C.Open/check open 6-SH-GV-664 1-29-01 C Open/check open 63-SH-H-1264 [4] Energize steam to 63-HV-0110D at rack 3W6. [a] Open the blowdown valve 6-SC-GT-655 on trap 6-SH-T-663 and 6-SC-GT-659 on trap 6-SH-T-661. [b] Open 63-SH-H-1199. 751 [c] Crack open 63-SH-GL-1200 to warm the line. 122-04 [d] Blowdown condensate to a catch pan then close blowdown valve 6-SC-GT-655 and 6-SC-GT-659. [e] Slowly open 63-SH-H-1198. (f) OPEN 6-SH-GL-653 AP 124/04 NOTE Operating a jet to the waste header for longer than 2 minutes may cause a loss of off-gas ventilation on 8D-4. [5] Perform Appendix A-2, Steps 1-5, Prior to initiating transfer.

-ndect 1/20/04

[6] Turn HIC-0117 (CFMT-WTF\*Jet On/Off) to ON.

8D-4 is maintained at 0.5" W.C. [b] After a maximum of two minutes jetting time, turn HIC-0117 to OFF. [7] After waiting a minimum of 15 minutes for the waste header and tanks 8D-2/8D-4 pressures to stabilize, repeat Section 10.1 [6] until the desired volume of the CFMT has been transferred to the WTF. [+] [8] CLOSE the following valves at 8Q-5 and document completion in the spaces provided: \_55-PH-H-124, isolation valve from 8Q-5 to the 8D-4 waste header ▶ 55-PH-H-125, CFMT to 8Q-5 isolation valve for primary line 55-PH-2-006 because the primary transfer line was used, [+] [a] Perform independent verification of above valving and document 🔾 completion here \_\_\_\_\_ 164 19] Upon completion of CFMT jetting (initial contents), add 200 gallons (approximately) of rinse water (utility water) to the CFMT per Appendix B, and again jet to 8D-4 per these appendices (A-1 and A-2).  $\mathbf{A} = \mathbf{A} + \mathbf{A}$ [+] [10] CLOSE the following values at 8Q-5 and document completion in the spaces provided: 55-PH-H-124, isolation valve from 8Q-5 to the 8D-4 waste header **\_55-PH-H-125**, CFMT to 8Q-5 isolation valve for primary line 55-PH-2-006 because the primary transfer line was used, [+] [a] Perform independent verification of above valving and document completion here [11] Close 63-SH-H-1198, 63-SH-H-1199, and 63-SH-GL-1200.  $\rightarrow$  REFORM LINE FUSH PER AL 5.2[] [12] Remove CFMT to Waste Tank Farm Transfer Jumper H-11-7360 (4223-V001-G2) as directed.

[a] During the jetting operation continuously monitor PI-009 to ensure

as directed. WASTEHGNOER/ # IF 85-4 PRESSURE STABALIZES IN LESS THAN IS MIN., # IF 85-4 PRESSURE STABALIZES IN LESS THAN IS MIN., # JETTING MAY RESUME SOUTHER. # JETTING MAY RESUME SOUTHER. # JETTING MAY RESUME SOUTHER.

#### 5.2 Waste Return from the CFMT to Tank 8D-4 (ref. SOP 55-13 Rev. 4)

**NOTE** The waste return from the CFMT to Tank 8D-4 operates passively and requires no active involvement other than monitoring. Refer to the PLC screen INTLK\_R4 for indications of correct valving. This PLC screen may be used to perform independent verification of valving.

The primary transfer line from the CFMT is to be used for this evolution.

[1] Verify that the alternate ventilation path is being utilized per the following valve lineup: Verify CLOSED: 55-PH-H-019 (8Q-1) 55-PH-H-004 (8Q-1) 55-PH-H-003 (8Q-1) 55-PH-H-042 (8Q-4) 55-PH-H-039 (8Q-4) 55-PH-H-037 (8Q-1) Verify OPEN: 55-PH-H-016 (8Q-1) 55-PH-H-022 (8Q-1) 55-PH-H-038 (8Q-4) 55-PH-H-045 (8Q-4)

[+] [3] OPEN at the 8Q-5 pit, 55-PH-H-124, CFMT Return to 8Q-4 Isolation and document completion here

[+] [4] OPEN one of the following two values at 8Q-5 pit and document completion here

**55-PH-H-125**, CFMT to 8Q-5 isolation valve for the primary line from CFMT to 8Q-5 manifold (because the primary line is to be used for transfer)

[+] [a] Perform independent verification of valving above . Refer to PLC screen INTLK R4, Appendix F, sheet 3.

[5] Notify PSO that the valving is set to transfer waste from the CFMT to 8D-4.[a] Respond to any alarms for the receiving tanks, such as high level or high pressure, per SOP 55-17, SMS Alarm Response Procedure. If required, notify PSO to stop the transfer.

NOTE When the transfer is complete, notify PSO that the jet is off.

 $X_{\rm c}$ 

[+] [6] CLOSE the following values at 8Q-5 and document completion in the spaces provided:

55-PH-H-124, isolation valve from 8Q-5 to the 8D-4 waste header 55-PH-H-125, CFMT to 8Q-5 isolation valve for primary line 55-PH-2-006 because the primary transfer line was used,

[+] [a] Perform independent verification of above valving and document completion here \_\_\_\_\_.

CMES

WARNING

Do not enter the utility pit until a RP survey of the utility pit has been performed and radiation levels are determined to be acceptable for entry to the pit.

[+] [7] Following completion of the return transfer of waste, obtain the actual volume transferred from the CFMT from and record it in the space provided 5968  $\ell$  $\frac{212000}{1000}$  calculate the volume received, and record here 672000 (includes 2000)

[+] [8] PSO Supervisor verify that the material balance of volume received versus volume transferred is acceptable  $\frac{1}{12}\frac{1}{12}\frac{1}{12}\frac{1}{2}\frac$ 

[9] Activate (and secure) the utility water system as described below.

#### **Operation of the Utility Water System**

NOTE1 This section contains directions for activating the utility water system when directed by other steps in this procedure.

NOTE2 Steps [1] - [2][a] are optional if warm water is to be used for line flushing.

[1] If warm water is desired for flushing, assure that the breaker for the Tank 55-D-005 immersion heaters, located at the HT-3 Panel on the north wall of thee PVS MCC room, is ON. If warm water is not desired, then proceed to 6.1[3].

#### WARNING

DO NOT allow the temperature of 55-D-005 to increase to above 1400F. Water temperatures above this limit can cause personal injury if a leak occurs. NOTE Operating the utility pump 55-G-016 in recirculation will help to mix the tank 55-D-005 contents to obtain uniform liquid temperature.

[2] Perform this step only if warm water is desired for flushing line, otherwise, omit this step. Turn on the six disconnects located on the south wall of the PVS Utility Room next to Tank 55-D-005.

[a] If the water temperature is below the setpoint of the temperature controller (setpoint . 1300F), the green LED in the lower right corner of 55-TI-150 temperature indicator will illuminate. Press the '\*' key on 55-TI-150 and ensure the setpoint is 130EF. If not, adjust the setpoint to 130EF by holding down the '\*' key and press the up or down arrow to change the setpoint to the desired setting. DO NOT adjust the setpoint above 135EF.

[3] Manually fill the Utility Water Tank 55-D-005 to approximately 800 gallons by placing the level control, HIC-053 to "ON".

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[4] Manually CLOSE HIC-053.

\* NOTE 55-UW-H-162 MUST BE OPEN TO FILL 55D-005 UTILITY WATER TANK. Nº 1/22/04 102005

NOTE LCV-053 will automatically cycle open and shut maintaining the Utility Tank level between the high (800 gal.) and low (450 gal.) level control set points. High and low level alarms will occur at (970 gal.) and (380 gal.).

[5] Place HIC-053 in "AUTO". MANUAL Ht 122/04

[6] Turn the breaker for 55-G-016, located at MCC-A, compartment #2D, to the ON position and turn the PVS-001 disconnect switch ON at 55-G-016.

[7] Place the 55-G-016 motor starter hand switch HS-070A at MCC-A, position 2D, in the REMOTE position.

[+] [8] Verify the utility pump seal water valve UW-H-177 is OPEN and document

[9] Start 55-G-016 utility pump at PLC 55-B-011 by enabling the HIC-70B permissive and executing START at HIC-70A on 55-B-011.

#### Securing the Utility Water System

NOTE The utility water system will be secured per the following when directed by other steps in this procedure.

[1] CLOSE valve FCV-054 by turning HIC-054 OFF and STOP 55-G-016 by turning HS-070 OFF.

[+] [2] CLOSE valve 55-UW-H-177, 55-G-016 seal water valve. Document completion

[3] Turn HIC-053, 55-D-005 level control, to MANUAL and CLOSE the valve.

[+] [4] If ON, then turn OFF the six disconnects for the immersion heaters in 55-D-005 if they were turned on. Document completion on Appendix E or N/A step.

[5] Place the motor starter hand switch (HS-070A) at MCC-A compartment 2D for the utility water pump in "OFF".

[10] Obtain an RP survey of the 8Q-5 utility pit for entry to the utility pit to perform valving.

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5.2.1 Flush 8Q-5 to the CFMT

[1] Set FQIC-054 for a flush volume of 50 - 75 gallons.

[2] Press the START button on FQIC-054 and OPEN FV-054 by turning HIC-054 ON on the PLC.

102005

[+] [3] CLOSE value 55-CH-GL-206, utility bleed value and document completion here  $\frac{1}{2}$ . 2-3-34

[+] [a] Perform independent verification that valve 55-CH-GL-206 is closed [+] [4] OPEN the following values in the 8Q-5 utility pit and document Completion here ALLER 13104 completion here  $\mu$ VALUE LOTTO DEVICES TO BE REPLACED UPON COMPLETION & TRANSFORS. NP 1/20/04/ 55-CH-H-103, utility inlet isolation valve Verify pressure is >100psig on PI-162 55-CH-GL-104, utility block valve 55-CH-GL-106, utility block valve [+] [a] Perform independent verification of the above valving and document completion here 2-3-04[5] Notify PSO that the minimum 50 gallon flush to the CFMT is about to commence. [+] [6] Perform the following valving at 8Q-5 and document completion here 1N 2-3-04 OPEN valve 55-PH-H-125, CFMT to 8Q-5 isolation valve for the primary transfer line PH-2-006 [7] OPEN valve 55-PH-H-136, utility isolation valve to 8Q-5 to commence flush. [8] CLOSE valve 55-PH-H-136, utility isolation valve to 8Q-5, when the 50 gallon minimum flush is complete. [+] [9] OPEN valve 55-PH-H-124, 8Q-5 manifold to the waste header (8Q-5 pit) and allow the line from the CFMT to 8D-4 to drain for a minimum of two minutes and document completion here 23-3-4

[+] [10] Perform the following valving and document completion here: 12-3-04 CLOSE valve 55-PH-H-125,

[11] Reset FQIC-054 to 100 - 150 gallons per the Shift Supervisor and press the start button on FQIC-054.

[12] OPEN value 55-PH-H-136, utility isolation value to 8Q-5 (8Q-5 pit) and flush a volume of at least 100 gallons to 8D-4.

[13] CLOSE 55-PH-H-136 and when a minimum of 100 gallons is indicated on FQIC-054.

[14] OPEN value 55-PH-H-125 and allow the line from the CFMT to Tank 8D-4 to drain for a minimum of two minutes.

[+] [15] After the line has been drained, perform the following valving at the

8Q-5 pit and document completion here 1-3-04 CLOSE valve 55-PH-H-125, CFMT to 8Q-5 isolation valve (primary line) AND CLOSE valve 55-PH-H-124, 8Q-5 manifold to the waste header isolation valve. WARNING Do not enter the utility pit without first obtaining a Radiation Protection survey to determine the radiation levels in the utility pit are acceptable. [+] [16] Obtain an RP survey of the 8Q-5 utility pit, then perform the following valving and document completion here: 2-7-04 CLOSE valve 55-CH-GL-106, utility block isolation valve CLOSE valve 55-CH-GL-104, utility inlet isolation valve CLOSE valve 55-CH-H-103, utility water isolation valve OPEN valve 55-CH-GL-206, utility bleed valve for 8Q-5 utility line AND REPLACEMENT OF DERMANENT [+] [a] Perform independent verification of above valving and document CABLE LOCKS completion here: 2-3-04 HP will HP 122/02/ [17] Notify PSO that the flush is complete and the valves to the CFMT are CLOSED.

[18] Secure the Utility Water System per Section 6.2 (ref. SOP 55-13 Rev. 4)

Necessary, have

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pulled R) Myre 2/3/64

TITLE _ Appe	endix B - Rinse Wate: Addition to CFMT	PAGEOF
Z TASK	DESCRIPTION	SIGNATURE/DAT
Αρρ.	6	I
	WV-3909, "HAZARDS SCREEN CHECKLIST"	
<b>B</b> 3.2	MATERIAL/SPECIAL TOOLS AND EQUIPMENT	
	A) 55 gallon drum for measuring rinse water (UTILITY WATER)	HX:109
1	B) Drum pump suitable for transferring rinse water to	
	CFMT(whse. Stock no. 0213-003.0) (if existing pump isn't	
	available)	
	C) Drum lifting/rolling devices to assist in transferring	
	the drum	
	D) Associated clamps or fittings necessary to connect the	
	pump to the transfer line	<u></u>
<b>B</b> 3.3	FIELD PREPARATIONS (MAY BE COMPLETED OUT OF SEQUENCE)	
	A) Obtain 55 gallon drum with transfer pump with	
i	necessary fittings, and transport to working location in	
	the MWOA	
<b>3</b> 4.0	PERFORMANCE SECTION	
+64.1	PSO: Verify the following valves are in the closed	PSO
	position:	
	6 CH-H-900 Ball isolation valve upstream of hose	
	connection 6-CH-HC-902 (pump tie in location in MWOA)	
	6 CH-H-901 Ball isolation valve down stream of the hose	Acult
	connection (MWOA)	ADDAY
	6 CH-H-944 Cell Wall Isolation valve (LWOA)	12910
<b>R</b> 4 2	Consistent with PPF as described in the RWP fill drum	
	with rinse water and install pump in preparation for tie	
	in to transfer line.	
+ <b>B</b> 4.3	RP Tech: GM survey line in MWOA where pump installation	<100 cpm/probe
RP	will occur to verify <100 cpm/probe beta-gamma above	beta-gamma above
HOLDPOINT	background on line. If activity above this is detected,	bkg.
	stop operations until additional controls can be put in	Ry normantin
	place.	RP TECH P. 1/24
<b>B</b> 4.4	Verify absence of pressure (gage on pressure pot) and	
	disconnect pressure pot from transfer line at hose	
	connection 6-CH-HC-902 (upstream of valve 6 CH-H-901) and	
	connect transfer pump.	
<b>ß</b> 4.5	Verify CFMT off gas blower is operating	
<b>B</b> 4.6	Open valve 6 CH-H-944 and valve 6 CH-H-901 and turn on	
	pump to begin transfer of rinse water.	

TITLE Appe	endix B - Rinse Water Addition to CFMT	PAGEOF
Z TASK	DESCRIPTION	SIGNATURE/DATE
<b>B</b> 4.7	Upon completion of transfer, refill drum with utility water and repeat process.	
<b>B</b> 4.8	Upon completion of 200 gallon transfer, secure pump in the off position and close valves 6 CH-H-944 and 6 CH-H- 901.	
<b>B</b> 4.9	Line originally breached for transfer to be reconnected and valves 6 CH-H-900, 6 CH-H-901, and 6 CH-H-944 returned to their original closed position. Drum moving equipment, empty drum, pump, any additional items used, returned to proper location.	
<b>B</b> 4.10	Upon completion of addition of rinse water, return to the . WHP for direction in jetting to 8D-4.	AppenDIXES A-INA-
<b>8</b> 5.0	POST MAINTENANCE TESTING	
<b>B</b> 5.1	NONE REQUIRED	
<b>3</b> 6.0	POST COMPLETION CONFIGURATION	
+ <b>B</b> 6.1	Same as prior to starting	PSO MMyue 2-04-04

NOTE: B SUFFIX ADDED TO ALL STEPS IN APPEXDIX B. So the Duplicate Stept Humbers Appear II WIP. PRIOR 10 FSSUE Bill Line 1/24/04

# HAZARDS SCREEN CHECKLIST

Project/Document ID:	Preparation of Vitrification Vessels for Removal	Rev.	0	FC#
Hazards Analyst:	Howard Payne	Date:	1/14/200	4
If the answer to any of t the right-hand column	he following questions in "Yes," consult the Hazard for assignment of a Hazards Controls Specialist. S	Control creening	Specialty of a field	Area indicated in change needs to

address only the impact of the field change on the original Hazards Screen Checklist.

C

Hazard Control Speciality Areas Acronyms

CSE - Criticality Safety Engineer	IH&S - Industrial Hygiene & Safety
EA - Environmental Affairs	MPOSS - Main Plant Operations Shift Supervisor
EM - Emergency Management	RP - Radiation Protection
FM - Facility Manager	USQD Orig - USQD Originator
FP - Fire Protection	WM - Waste Management Services

### YOU SHALL CONSIDER BOTH NORMAL OPERATIONS AND PROCESS UPSET CONDITIONS. Sheet 1 of 4

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#	Yes			Function

### **Radiological and Utilities**

- - - -

Ruun	ologn	Juru		
1a	x		Will the work be performed in a radiologically posted area, i.e., radiological buffer area, radiation area, high radiation area, contamination area, etc.?	RP
1b	, ,	Х	Will the work involve high-activity sealed radioactive sources?	RP
1c		х	Will the work involve any type of excavation or ground intrusion (e.g., driving posts, installing Hilti bolts)? (See <u>WV-370</u> ; use Form <u>WV-3521</u> .)	RP, IH&S
1d		х	Will the work involve any type of construction, remodeling, or demolition?	RP, IH&S
1e		Х	Will the work be conducted on equipment containing radiation detectors?	RP
1f	X		Will the work involve systems or vessels containing Highly Radioactive Waste?	RP
Chen	nical	Not	e: Obtain and review Material Safety Data Sheets for all chemicals involved.	
2a	1	х	Will toxic, carcinogenic, flammable, or reactive chemicals be involved (either used, e.g., lead paint, PCBs, or generated, e.g., wastes)?	IH&S, EM, EA
2b		Х	Will corrosive or oxidizing chemicals other than water be used or generated?	IH&S
2c		х	Will compressed or uncompressed gases in cylinders or bottles or cryogenics be involved, e.g., halon in cylinders?	IH&S
2d	1	х	Will the work involve piped-in chemicals, chemical sensors, or equipment or piping containing chemicals?	IH&S
2e		х	Will the work involve Trade/Brand name chemicals that do not list all the ingredients on the MSDS?	IH&S, EM, EA
2f	,	х	Will the work involve the purchase of new or increase an existing inventory level of chemicals?	IH&S, EA, EM, WMS

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			$\mathcal{C}$	
	Y	OU S	SHALL CONSIDER BOTH NORMAL OPERATIONS AND PROCESS UPSET CONDITION Sheet 3 of 4	NS.
#	Yes	No	Potentially Hazardous Situations	Cog. Functior
6f		x	Will the work disable or be performed in close proximity to any environmental monitoring equipment (i.e., air monitors, groundwater wells, etc.)?	EA
6g		x	Will the work require the disturbance of migratory bird nests or involve animal control?	EA
6հ		x	Will the work involve PCB items in use (e.g., transformers, capacitors, voltage regulators), PCB wastes, or the removal or abandonment of pipes that distribute natural gas?	EA
6i		x	Will the work potentially affect wetlands, the flow of creeks or streams, or lake discharges?	EA
6j		x	Will the work require special packaging accommodations for waste including application of fixative or foaming agent?	WMS, EA
Egu	lipmen	t Stat	<ul> <li>Facility Manager shall decide whether the Radiation and Safety Committee must review the proposition pursuant to <u>WV-906</u>.</li> </ul>	sed activity
7a		х	Will the work involve removing Process Safety Requirement (PSR) controlled equipment from service? (See <u>WVDP-218</u> .)	FM *
7b		х	Will the work be performed on equipment identified in any Process Safety Requirement? (See <u>WVDP-218.</u> )	FM •
7c		х	Will the work be performed on or disable Safety Class A, B, or C equipment? (See <u>WVDP-204</u> .)	FM *
7d		x	Will the work be performed on ventilation systems or air effluent monitoring systems?	FM •
7e		x	Will the work impair the operability of or have the potential to inadvertently actuate any alarm (e.g., fire detection, fire suppression, carbon monoxide, NOx, ammonia) system?	FM *, IH& MPOSS
7f		x	Will the work be performed on any standby or backup power supply? (See <u>SOP 00-04</u> , Appendix E.)	FM *
7g		X	Will the work impair any breathing air supply or fresh air intake?	FM *
dustr	ial Hyg	giene :	and Safety, Emergency Management and Construction Safety	
8a		x	Will the work be performed on open-sided platforms or roofs more than 4 feet above ground level or more than 6 feet up on a ladder?	IH&S
вь		x	Will the work require designing and/or building a permanent fall-protection system for other than field or construction use?	IH&S
8c	μP,	× 10	Will the work require burning, welding, or grinding or involve forms of high energy (e.g., electrical, steam, high-pressure air, or water)?	IH&S
Bd	X"	X	Will the work require entry into a confined space?	IH&S
Be		x	Will the work produce a breathing hazard (dust, fumes, solvent vapors, etc.) requiring use of respiratory protection for non-radiological purposes?	ih&s
Bf		x	Will the work require handling asbestos or insulation-containing materials?	IH&S
Bg		x	Will the work be conducted on or near live electrical components with more than 50 volts alternating current (VAC)?	IH&S
3h		x	Could the work or job location result in "heat" or "cold" injuries such as heat exhaustion, frost bite, or hypothermia?	iH&S
81		x	Will the work produce noise greater than 85 dBA at the job site or at other locations?	IH&S

	YOU SHALL CONSIDER BOTH NORMAL OPERATIONS AND PROCESS UPSET CONDITIONS. Sheet 4 of 4					
#	Yes	No	Potentially Hazardous Situations	Cog. Function		
8j		x	Will the work produce paint or chemical fumes at the job site or at other locations?	IH&S		
8k		x	Will the activity involve manual lifting of materials, power tools, vibrating equipment, or repetitive motions that could cause musculoskeletal injury?	IH&S		
81	1	х	Will the work involve hoisting and/or rigging activities?	IH&S		
8m		x	Will the work result in the temporary or permanent routing of utilities (e.g., electricity, air, gas, steam, water, gasoline, fuel oil) that may become damaged as a result of exposure to personnel or vehicular traffic?	IH&S		
8n		x	Will the work result in the temporary or permanent routing of utilities (e.g., electricity, air, gas, steam, water, gasoline, fuel oil) that may unintentionally become covered in some manner by material (e.g., snow, water, sand, dirt, gravel, mud, boxes, containers)?	IH&S		
80		х	Will the work breach a system known or suspected to contain hazardous materials (e.g., mercury) or energy sources (e.g., steam, electricity)?	IH&S		
8p		x	Will the work be performed in an area where previous spllls of hazardous materials (e.g., mercury) are known or suspected to have occurred?	IH&S		
8q		x	Will the work involve conditions where the unexpected energization or startup of machines or equipment or the release of stored energy could cause injury or death to personnel? (See <u>SOP 00-04</u> .)	FM		
Nuclea	Nuclear Criticality					
9a	X	×	Will the work involve or potentially involve greater than 1 gram of fissionable material (e.g., U-233, U-235, Pu-239, Pu-241)?	CSE		
9b		x	Will the work involve spent fuel handling outside an approved shipping container?	CSE		
9c		х	Will the work involve storage of fissile material in a container other than described in <u>PSR-6</u> or <u>PSR-18</u> ?	CSE		
9d		х	Will the work impact any fissionable material contained in the GPC, PMC, XC-1, XC-2, or PPC?	CSE		
9e		х	Will the work involve handling or placement of containers within the storage racks in the CPC?	CSE		

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4	PRE-JOB BR: (Pag	PENDIX C IEFING CHECKLIST Je 1 of 5)			
Pre-Joh	Briefing Checklist	Ра	ge_1_ of		
Work Ins	struction No.: $10^{2}00^{3}$	Date:	1/26/04		
Title:	Preparation of Vit	Vossals for Removal			
	<u>Att</u>	cendance:			
	RJMyers Responsible Work Group Supervisor (WGS) or designee				
	Mesigned Workers (Pr	rint Name/Signature/Date):			
Chad Ela	mosen the the 1-124104				
Sect SL	elle the hour 1-26.04				
J. Khow	17 ( 17 hluet + 29-04				
JBEA	12/Com-Beld 1/29/04				
iv X	HA holpy				
Wor	k Instruction Originator)	(Technical Specialist)			
CI (IH&	S Engineer)	C (IH&S Field Representative)			
C (Rad	Image: Control Radiological Engineer)     Image: Control Technician)				
D (fac	cility designee)		)		
·					
A: A	ALARA TRIGGER LEVELS				
	Check all that apply. If any checked below), perform Sectio are exceeded (all "no" below),	ALARA Trigger levels are exceeded (a on B and Section C. If no ALARA Trig perform Section B only.	ny "yes" ger levels		
YES N [] [	TO [V] Estimated individual or collec	tive dose greater than 100 person-mr	em.		
[] [	[V Predicted airborne radioactivi Concentration (DAC) to a worke protection factors.	ty concentrations in excess of one E er taking into account assigned respi	erived Air ratory		
[] [	[V] Work area removable contaminat contamination levels in table	ion levels that exceed 100 times the 2-2 of <u>WVDP-010</u> .	e releasable		
() (	[Y Entry into areas where dose ra	ates exceed 1.0 rem/hour.			
[] [	[ Y Potential releases of radioact offsite) that could produce a Derived Concentration Guide (D radionuclide or ≥ one for the radionuclides per <u>DOE Order 54</u>	tive material to the environment (ons concentration greater than or equal DCG) or other limits for an individua sum of the fractional DCG for a mixt 100.5.	ite or to (2) one ul sure of		
[] [	[Y Potential for significant radi	lological exposures.			

WV-3745, Rev. 3 (SOP 00-46)

Υ, '		APPENDIX C PRE-JOB BRIEFING CHECKLIST (Page 2 of 5)
		Page_2_ of
B:	ALARA AN	D NON-ALARA JOBS
1.	C Yes	Ensured scope of work is understood?
2.	W Yes	Ensured identified worker Health & Safety training requirements have been verified by reviewing the workers' Health & Safety Training Tracking Badges?
3.	□ Yes □ N/A	Ensured hazards and hazard controls, including LO/TO are understood?
4.	© Yes □ N/A	Discussed applicable permits (e.g., Ground Disturbance Permit, etc. )?
5.	₽ Yes □ N/A	Discussed facility/area conditions including impact of other work in the area?
б.	Ø∕Yes 1 □ N/A	Discussed coordination with support groups including individual assignments?
7.	፼ Yes □ N/A	Discussed all steps including "skill of craft", completion criteria, and cleanup?
8.	O Yes O N/A	Identified safe stopping conditions and hold points for necessary breaks in work?
9.	O Yes N/A	Reviewed Emergency Response actions?
10.	U Yes N/A	Identified and verified availability of required waste containers?

APPENDIX C PRE-JOB BRIEFING CHECKLIST

(Page 3 of 5)

Page<u>3</u> of \_\_\_\_\_ Section B (continued) 11. [] Yes Discussed "Lessons Learned" from recent events? If "Yes", list below. V/A 12. If Yes Discussed PPE and IWP requirements? O N/A \_\_\_\_\_ 13. 🗆 Yes Applicable MSDS's for chemicals and hazardous materials available and Ø N/A understood? 14. 🛛 Yes Radiation Protection discussed radiation conditions and RWP requirements? O N/A 15. Additional comments: (Use additional sheets as necessary) Pre-Job Briefing Prepared By: <u>RTMyers</u> <u>RJMyue</u> 1/26/04 Print Name Signature Date Responsible WGS: