ENGINEERING CHANGE NOTICE

Page 1 of 21. ECN 629802Proj.
ECN

2. ECN Category (mark one) Supplemental ☐ Direct Revision ☒ Change ECN ☐ Temporary ☐ Standby ☐ Supersedeure ☐ Cancel/Void ☐	3. Originator's Name, Organization, MSIN, and Telephone No. H. ROBERT WOODWORTH, 19330, L1-02, 373-4492	4. USQ Required? ☐ Yes ☒ No	5. Date 10-29-98
12a. Modification Work ☐ Yes (fill out Blk. 12b) ☒ No (NA Blks. 12b, 12c, 12d)	12b. Work Package No. N/A	12c. Modification Work Complete N/A Design Authority/Cog. Engineer Signature & Date	12d. Restored to Original Condition (Temp. or Standby ECN only) N/A Design Authority/Cog. Engineer Signature & Date

12a. Modification Work ☐ Yes (fill out Blk. 12b) ☒ No (NA Blks. 12b, 12c, 12d)	12b. Work Package No. N/A	12c. Modification Work Complete N/A Design Authority/Cog. Engineer Signature & Date	12d. Restored to Original Condition (Temp. or Standby ECN only) N/A Design Authority/Cog. Engineer Signature & Date
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13a. Description of Change 13b. Design Baseline Document? ☐ Yes ☒ No

DIRECT REVISION OF SUPPORTING DOCUMENT HNF-2286.

REPLACE DOCUMENT HNF-2286, REV. 6, PAGES 1 THROUGH 20, WITH ATTACHED DOCUMENT HNF-2286, REV. 7, PAGES 1 THROUGH 22.

CHANGES INCLUDE:

- 1). ADD TABLE 6a, PAGES 20-21, "TABLE 6a - SIZE REDUCE THE 1A RACK - ACCESSIBLE COMPONENTS".
- 2). CHANGE REFERENCE TO TABLE 6, ON LIST OF "TABLES TO BE ADDED BY DOCUMENT REVISION", PAGE 22.
- 3). UPDATE "SIZE REDUCE THE 1A RACK" SUMMARY AS SHOWN ON PAGE 2.

14a. Justification (mark one)			
Criteria Change ☒	Design Improvement ☐	Environmental ☐	Facility Deactivation ☐
As-Found ☐	Facilitate Const ☐	Const. Error/Omission ☐	Design Error/Omission ☐

14b. Justification Details
AS THE QUALITY PROCESS PLAN FOR THE 324 BUILDING ACTIVITIES DEVELOP, ADDITIONAL TABLES WILL BE ADDED TO HNF-2286.

15. Distribution (include name, MSIN, and no. of copies)	
RIDDELLE, JG	L1-02
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324 Facility B-Cell Quality Process Plan

J.G. Riddelle

BWHC, Richland, WA 99352

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Key Words: B-Cell, Quality Process Plan, Hot-Work

Abstract: Quality Process Plan for the Restart of Cell Hot-Work.
Addition of Table 6a.

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Janis Cardal 11-24-98
Release Approval Date

Approved for Public Release

324 Facility B-Cell Quality Process Plan

HNF-2286 (Rev. 7)

B-Cell is currently being cleaned out (i.e., removal of equipment, fixtures and residual radioactive materials) and deactivated. TPA Milestone M-89-02 dictates that all mixed waste and equipment be removed from B-Cell by 5/31/99. The following sections describe the major activities that remain for completion of the TPA milestone.

Size Reduce Tank 119 and Misc. Equipment

This activity is the restart of hotwork in B-Cell to size reduce the remainder of Tank 119 and other misc. pieces of equipment into sizes that can be loaded into a grout container. This activity also includes the process of preparing the containers for shipment from the cell. The specific activities and procedures used are detailed in Table 1.

Load and Ship Low-Level Waste

This activity covers the process of taking a grouted LLW container from B-Cell and loading it into the 3-82B cask in the REC airlock and Cask Handling Area (CHA) for shipment to the LLBG. The detailed activities and procedures for this part of cell cleanout are included in Table 2.

Remove and Size Reduce the 1B Rack

The next phase of cell cleanout is the removal of the 1B rack from the cell. This includes the remaining activities to remove the rack from the cell wall and the written plan for cutting the rack apart. Specific work instructions detail the steps used to dismantle the rack to ensure that rigging concerns have been addressed satisfactorily. The plan also details how the tanks in the rack structure will be segmented and how heels in the tanks will be handled as mixed waste. The detailed activities and procedures for the removal of the 1B rack are contained in Table 3a. Rack size reduction plans are detailed in Table 3b, with the exception of tank TK-114. The size reduction of tank TK-114 is addressed in Table 3c.

Collect Dispersible Material from Cell Floor

This part of cell cleanout is the collection of dispersible material from the cell floor. The bulk of the cesium contamination in the cell is expected to be found in the caked material on the floor under the footprints of the racks. Part of this material will be picked up after the 1B rack size reduction, part after the size reduction of the 2A rack, and a final increment after the 1A rack size reduction is completed. The process will cleanout the drainage trench along the east wall of the cell and the sump in the northeast corner of the floor. The primary methods that will be used are scraping the material into piles,

324 Facility B-Cell Quality Process Plan

HNF-2286 (Rev. 7)

picking up the piles with a clamshell or vacuum, then placement of the material in containers for later shipment to the PUREX tunnels as mixed waste. The detailed activities and procedures for dispersible material collection from the cell floor are contained in Table 4.

Remove the 2A Rack

This 2A rack removal is similar to the removal of the 1A and 1B rack with the exception of interference with the in-cell HEPA filters which will force the removal of the filter unit during 2A rack removal. The detailed activities and procedures for the removal of the 2A rack are contained in Table 5a.

Size Reduce the 2A Rack

This activity will be very similar to the 1B rack size reduction. It will cover a specific technical work plan for dismantling this rack. The tanks in the 2A rack are expected to have minimum heels as these tanks were condensate receiver vessels. Table 5b details the activities that will accomplish the size reduction task.

Size Reduce the 1A Rack

This phase of the project will size reduce the 1A rack. It will be completed in two stages, the first being removal of exposed and accessible components. Table 6a details the portion that can be completed without compromising the structure or tank assemblies. This rack has already been disconnected and pulled from the wall in to the cell. The plan for the reduction of the remainder of this rack will include the very specific way the tanks in the rack will be dismantled to ensure dispersible material suspected to be contained by tank TK-113 is correctly managed to maintain compliance with SAR requirements. This rack contains the process evaporator, tank TK-113, which is expected to contain a potential holdup of approximately 1.5M curies of heel material.

The size reduction planning will also address the dismantlement sequence to ensure all rigging concerns are addressed. The detailed activities and procedures for this part of cell cleanout will be included in a table added to this document in the future.

Load and Ship Mixed Waste to PUREX Tunnels

This part of the cleanout process involves the loading of the 22.5 Ton casks with the dispersible material and tank heels collected throughout the cell cleanout project. The casks will be loaded in the REC airlock and shipped to the PUREX plant by truck. The casks will be moved on to flatcars and the fully loaded railcars will be pushed into Tunnel #2. The detailed activities and procedures for this part of cell cleanout will be

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

included in a table added to this document in the future.

Move Spent Fuel to A-Cell

Part of the cell inventory of equipment are seven commercial fuel bundles stored along the west wall of the cell. When the remaining FRG equipment has been removed from A-Cell the bundles will be moved through the REC airlock to A-Cell. The process will place the bundles into new thimbles supported by a new storage rack. The old thimbles and storage racks in B-Cell will be size reduced and disposed of as LLW. The detailed activities and procedures for this part of cell cleanout will be included in a table added to this document in the future.

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 1- Size Reduce Tank 119 and Misc. Equipment

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Verify combustible loading within limits for cell	Inventory within limits	N/A	3I-SOP-REC-K-22 3I-SOP-REC-G-22	BWHC Shift Sup.	Procedure approval BWHC Shift Sup. monthly review Fire Protection Eng. monthly review
Obtain Hotwork Permit	Approved permit	N/A	3I-SOP-REC-K-22 HNF-PRO-356	BWHC Shift Sup.	Procedure step Fire Protection Eng. Approval Facility mgr. approval
Perform size reduction of Tank 119 and misc. cell debris	Metal for addition to GC	N/A	3I-SOP-REC-K-22 3I-SOP-REC-A-38 3I-SOP-REC-F-2	BWHC Shift Sup.	Procedure steps Procedure steps Procedure steps

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 1- Size Reduce Tank 119 and Misc. Equipment					
Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Rinse metal piece	Metal cleaned for addition to GC	N/A	3I-SOP-REC-A-49 3I-SOP-REC-A-38	BWHC Shift Sup.	Procedure approval Waste coord. approval Procedure steps
Load GC	Filled GC	N/A	3I-SOP-REC-A-49 3I-SOP-REC-A-38	BWHC Shift Sup.	Procedure steps
Weigh GC	GC within weight limits	N/A	3I-SOP-REC-A-49	BWHC Shift Sup.	Calibrated load cell
Pre-Grout dose profile	GC within dose limits	N/A	3I-SOP-REC-A-49	BWHC Shift Sup.	Calibrated R-07 RCT review
Approval to grout	GC ready to grout	N/A	3I-SOP-REC-A-49	BWHC Shift Sup.	Procedure step
Grout container	GC ready for final dose profile	N/A	3I-SOP-REC-A-49 3I-SOP-REC-A-65	BWHC Shift Sup.	Calibrated load cell Procedure steps
Post-Grout dose profile	GC ready for shipment	N/A	3I-SOP-REC-A-49	BWHC Shift Sup.	Calibrated R-07 RCT review

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 2 – Load and Ship Low 119 Misc. Equipment

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Receive cask	Facility acceptance	N/A	3I-SOP-REC-A-44	BWHC Shift Sup.	Procedure approval by QA and Packaging Procedure steps
Unload cask from trailer	Cask ready to load	N/A	3I-SOP-REC-A-44	BWHC Shift Sup.	Procedure steps
Inspect cask system	Verify no internal debris	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure approval by QA and Packaging Procedure hold point
Inspect Hittman liner	Verify no damage	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure hold point
Place Hittman liner in A/L	Liner ready for GC	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure step
Move cask into A/L	Cask ready for liner	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure step
Record GC ID number	Verify waste package	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure hold point

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 2 – Load and Ship Low 119 Misc. Equipment

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Load Hittman liner	Liner ready for lid	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure step
Load liner into cask	Cask ready for removal from A/L		3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure step
Remove cask from A/L	Cask ready for lid	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure step
Torque cask lid nuts	Cask lid secured	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure hold point Calibrated torque wrenches
Perform cask leak test	Verify cask sealed	N/A	3I-SOP-REC-A-42	BWHC Shift Sup.	Procedure hold point Calibrated test device
Load cask onto trailer	Cask ready to ship	N/A	3I-SOP-REC-A-44	BWHC Shift Sup.	Procedure steps
Review loading and shipping records	Verify shipping documents	N/A	3I-SOP-REC-A-44	QC inspector	QC Inspection Plan QC hold point
Ship cask	LLW shipment	N/A	3I-SOP-REC-A-44	BWHC Shift Sup.	Procedure step

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 3a - Remove the 1B Rack

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Prepare Equip, Cell & Attach Winch	Facilitate Removal of 1B Rack	3I-98-00150 (Step 1-16)	3I-SOP-REC-K-30**	BWHC Shift Sup.	Work Package Steps
Remove MSMs at South Window	Facilitate Removal of 1B Rack	3I-98-00150 (Step 18)	3I-SOP-REC-K-02 **	BWHC Shift Sup.	Procedure and Work Package step
Remove 1B Rack From Wall	1B Rack Ready for Reduction	3I-98-00150 (Step 25)	N/A	BWHC Shift Sup.	Work Package Steps
Install MSMs at South Window	Restore B-Cell Capability	3I-98-00150 (Step 28)	3I-SOP-REC-K-02**	BWHC Shift Sup.	Procedure and Work Package steps
Install Wall Shield Plugs	Provide Shielding for Airlock and B-Cell	3I-98-00150 (Step 32-35)	3I-SOP-REC-A-04** 3I-SOP-REC-A-12** 3I-SOP-REC-F-11** 3I-SOP-REC-F-11A**	BWHC Shift Sup.	Procedure and Work Package steps

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 3b – Size Reduce the 1B Rack

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Remove Misc. Piping and Agitator	Metal for Addition to GC	3I-98-00151 (Step 3)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations
Reduce Connector Face	Metal for Addition to GC	3I-98-00151 (Step 7)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations
Reduce Lower Rack Structure and Plugs	Metal for Addition to GC	3I-98-00151 (Step 9)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations
Remove E-112 Reflux Condenser	Metal for Addition to GC	3I-98-00151 (Step 11)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 3b - Size Reduce the 1B Rack (cont.)

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Reduce Tank TK-112	Metal for Addition to GC	3I-98-00151 (Step 12)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations
Remove Tank TK-114	Tank TK-114 set aside for later Disposal	3I-98-00151 (Step 15)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations
Reduce Upper Rack Structure	Metal for Addition to GC	3I-98-00151 (Step 16)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 3b - Size Reduce the 1B Rack (cont.)					
Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Reduce Upper Plugs	Metal for Addition to GC	3I-98-00151 (Step 18-19)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 3c - Size Reduce the 1B Rack (tank TK-114)

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Reduce Tank TK-114	Metal for Addition to GC	3I-98-00151 (Step 15.1 WCN-03)	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05*	BWHC Shift Sup.	Procedure and Work package Steps Peer review CG calculations

** Common Facility Procedures, not provided for Review

3I-SOP-REC-K-30, Installation/Removal of services Via Split Plugs and Operating Transfer Ports

3I-SOP-REC-K-02, Manipulator Removal and Installation

3I-SOP-REC-A-04, Airlock/Cell Access

3I-SOP-REC-A-12, Hot Cell Shielding Door Controls

3I-SOP-REC-F-11, Dress/Undress Procedure for Fresh Air Hood

3I-SOP-REC-F-11A, Dress/Undress Procedure for Full Face Air Purifying Respirator and Two Pair of PCs

*Procedures Previously Reviewed

Reviewed for Table 1

3I-SOP-REC-A-49, Preparing/Loading Low Level Waste (LLW) Grout Containers

3I-SOP-REC-K-22, In Cell Operation of thermal Arc Plasma Cutting System

3I-SOP-REC-A-38, Medium Pressure Spray Decontamination

3I-SOP-REC-F-02, Fire Safety Guidelines for Radiochemical Hot Cells

3I-SOP-REC-K-05, Radiochemical Engineering Cells (REC) Cranes

3I-SOP-REC-G-22, Hot Cell Combustible Materials Inventory

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 4 – Collect Dispersible Material From Cell Floor

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Assemble Engineered Containers (ECs) in Grout Container	Ready to Transfer	N/A	3I-SOP-REC-F-25	BWHC Shift Supervisor	Procedure Steps
Transfer Assembly to B-Cell	Ready to Stage	N/A	3I-SOP-REC-F-25 3I-SOP-REC-A-04** 3I-SOP-REC-A-12** 3I-SOP-REC-A-28** 3I-SOP-REC-K-05*	BWHC Shift Supervisor	Procedure Steps
Prep for Loading	Ready to Load	N/A	3I-SOP-REC-F-25	BWHC Shift Supervisor	Procedure Steps
Video Start Point	Document Initial Condition	N/A	3I-SOP-REC-F-25	BWHC Shift Supervisor	Procedure Steps
Collect Dispersible Material	Dispersible Material Addition to ECs	N/A	3I-SOP-REC-F-25	BWHC Shift Supervisor	Procedure Steps
Close ECs	Ready to Store	N/A	3I-SOP-REC-F-25	BWHC Shift Supervisor	Procedure Steps
Video End Point	Document End Condition	N/A	3I-SOP-REC-F-25	BWHC Shift Supervisor	Procedure Steps

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 4 – Collect Dispersible Material From Cell Floor (Cont.)

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Verify WIS Complete & Correct	Completed WIS	N/A	3I-SOP-REC-F-25	BWHC Shift Supervisor	Procedure Steps BWHC Shift Supervisor Review
Transfer ECs to In-cell Storage	Ready to Dose Profile	N/A	3I-SOP-REC-F-25	BWHC Shift Supervisor	Procedure Steps

** Common Facility Procedures, not provided for Review

3I-SOP-REC-K-30, Installation/Removal of services Via Split Plugs and Operating Transfer Ports

3I-SOP-REC-K-02, Manipulator Removal and Installation

3I-SOP-REC-A-04, Airlock/Cell Access

3I-SOP-REC-A-12, Hot Cell Shielding Door Controls

3I-SOP-REC-F-11, Dress/Undress Procedure for Fresh Air Hood

3I-SOP-REC-F-11A, Dress/Undress Procedure for Full Face Air Purifying Respirator and Two Pair of PCs

3I-SOP-REC-A-28, Handling the Cask Handling Area (CHA) /Radiochemical Engineering Cells (REC) Air Lock Track Assemblies and Cart.

3I-SOP-REC-A-51, 22.5-Ton Box "Inner Container Loading"

*Procedures Previously Reviewed

Reviewed for Table 1

3I-SOP-REC-A-49, Preparing/Loading Low Level Waste (LLW) Grout Containers

3I-SOP-REC-K-22, In Cell Operation of thermal Arc Plasma Cutting System

3I-SOP-REC-A-38, Medium Pressure Spray Decontamination

3I-SOP-REC-F-02, Fire Safety Guidelines for Radiochemical Hot Cells

3I-SOP-REC-K-05, Radiochemical Engineering Cells (REC) Cranes

3I-SOP-REC-G-22, Hot Cell Combustible Materials Inventory

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 5a - Remove the 2A Rack

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Prepare Equip & Cell	Facilitate Removal of 2A Rack	3I-98-00721 3I-98-00746 3I-98-00259	3I-SOP-REC-K-30** 3I-SOP-REC-A-04** 3I-SOP-REC-F-11** 3I-TWP-98-018 3I-TWP-98-019***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> Procedure and Work Package steps PIC sign-off all pre-requisites complete
Remove ESP & HEPAs At North Window	Facilitate Removal of 2A Rack	N/A	3I-SOP-REC-K-25** 3I-SOP-REC-F-14*** 3I-TWP-98-019***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> Procedure steps Cell DP and dose readings
Remove MSMs at North Window and attach winch cable to rack	Facilitate Removal of 2A Rack	3I-98-00746	3I-SOP-REC-K-02 ** 3I-TWP-98-019***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> Procedure and Work Package steps PIC sign-off all obstructions removed
Remove 2A Rack From Wall	2A Rack Ready for Removal	N/A	3I-TWP-98-019***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> Procedure Steps, Cautions and notes PIC sign-off rack ready for removal and stable

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Install MSMs at North Window	Restore B-Cell Capability	3I-98-00746	3I-SOP-REC-K-02** 3I-TWP-98-019***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure and Work Package steps
Reinstall ESP & HEPAs at North Window	Restore B-Cell Capability	3I-98-00746	3I-SOP-REC-K-25** 3I-SOP-REC-F-14*** 3I-TWP-98-019***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure and Work Package steps
Install Wall Shield Plugs and Detach Winch Cable	Provide Shielding for Airlock and B-Cell	3I-98-00746	3I-SOP-REC-A-04** 3I-SOP-REC-A-12** 3I-SOP-REC-F-11** 3I-TWP-98-019***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure and Work Package steps ▪ PIC sign-off procedure complete and B-cell in safe condition

*** Facility Procedures to be Reviewed

3I-SOP-REC-F-14

3I-TWP-98-019

** Common Facility Procedures, not provided for Review

3I-SOP-REC-K-30, Installation/Removal of services Via Split Plugs and Operating Transfer Ports

3I-SOP-REC-K-02, Manipulator Removal and Installation

3I-SOP-REC-A-04, Airlock/Cell Access

3I-SOP-REC-A-12, Hot Cell Shielding Door Controls

3I-SOP-REC-F-11, Dress/Undress Procedure for Fresh Air Hood

3I-SOP-REC-K-25, Electrostatic Filter Assembly

*Procedures Previously Reviewed

Reviewed for Table 1

3I-SOP-REC-A-49, Preparing/Loading Low Level Waste (LLW) Grout Containers

3I-SOP-REC-K-22, In Cell Operation of thermal Arc Plasma Cutting System

3I-SOP-REC-A-38, Medium Pressure Spray Decontamination

3I-SOP-REC-F-02, Fire Safety Guidelines for Radiochemical Hot Cells

3I-SOP-REC-K-05, Radiochemical Engineering Cells (REC) Cranes

3I-SOP-REC-G-22, Hot Cell Combustible Materials Inventory

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 5b - Size Reduce the 2A Rack

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Remove & Reduce Misc. Piping and Connector Face	Metal for Addition to GC	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Caution Statement
Install Lifting Device	Metal for Addition to GC	N/A	3I-SOP-REC-K-22* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps
Remove Upper Plugs	Metal for Addition to GC	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Caution Statement
Remove E-116 Off Gas Heater	Metal for Addition to GC	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 5b - Size Reduce the 2A Rack (cont.)

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Size Reduce Upper Rack Structure	Metal for Addition to GC	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Note/Caution
Remove Lower Plugs	Metal for Addition to GC	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Peer review CG calculations
Remove T-118 & Size Reduce	Metal for Addition to GC	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Peer review CG calculations ▪ Notes
Remove & Size Reduce TK-116 & TK-118	Metal for Addition to GC	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 5b – Size Reduce the 2A Rack (cont.)

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Reduce Lower Structure	Metal for Addition to GC	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-021***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps

*** Facility Procedure to be Reviewed
3I-TWP-98-021, 2A-Rack Size Reduction

** Common Facility Procedures, not provided for Review
3I-SOP-REC-K-30, Installation/Removal of services Via Split Plugs and Operating Transfer Ports
3I-SOP-REC-K-02, Manipulator Removal and Installation
3I-SOP-REC-A-04, Airlock/Cell Access
3I-SOP-REC-A-12, Hot Cell Shielding Door Controls
3I-SOP-REC-F-11, Dress/Undress Procedure for Fresh Air Hood

* Procedures Previously Reviewed

Reviewed for Table 1

3I-SOP-REC-A-49, Preparing/Loading Low Level Waste (LLW) Grout Containers
3I-SOP-REC-K-22, In Cell Operation of thermal Arc Plasma Cutting System
3I-SOP-REC-A-38, Medium Pressure Spray Decontamination
3I-SOP-REC-F-02, Fire Safety Guidelines for Radiochemical Hot Cells
3I-SOP-REC-K-05, Radiochemical Engineering Cells (REC) Cranes
3I-SOP-REC-G-22, Hot Cell Combustible Materials Inventory

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Table 6a Size Reduce the 1A Rack – Accessible components

Activity	Product	Work Control Number (JCS No.)	Applicable Procedure and Instructions	Responsible (Lead) Individual	Quality Requirements
Remove and Reduce Misc. piping	Disposal of Rack Components to GC as LLW	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-026**	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Note/Caution ▪ Sketch ▪ USQ Review
Remove and Reduce Connector Face	Disposal of Rack Components to GC as LLW	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-026***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Peer review CG calculations ▪ Sketch ▪ Note/Caution
Remove and Reduce Lower Plugs (if possible)	Disposal of Rack Components to GC as LLW	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-026***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Peer review CG calculations ▪ Note/Caution

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Remove and Reduce Side Connector Plate	Disposal of Rack Components to GC as LLW	N/A	3I-SOP-REC-A-49* 3I-SOP-REC-K-22* 3I-SOP-REC-A-38* 3I-SOP-REC-F-02* 3I-SOP-REC-K-05* 3I-TWP-98-026***	BWHC Operations Shift Sup.	<ul style="list-style-type: none"> ▪ Procedure Steps ▪ Note/Caution ▪ Sketch ▪ PIC signoff ▪ Cell in safe/Stable configuration
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*** Facility Procedure to be Reviewed
3I-TWP-98-026, 2A-Rack Size Reduction

** Common Facility Procedures, not provided for Review
3I-SOP-REC-K-30, Installation/Removal of services Via Split Plugs and Operating Transfer Ports
3I-SOP-REC-K-02, Manipulator Removal and Installation
3I-SOP-REC-A-04, Airlock/Cell Access
3I-SOP-REC-A-12, Hot Cell Shielding Door Controls
3I-SOP-REC-F-11, Dress/Undress Procedure for Fresh Air Hood

* Procedures Previously Reviewed
Reviewed for Table 1
3I-SOP-REC-A-49, Preparing/Loading Low Level Waste (LLW) Grout Containers
3I-SOP-REC-K-22, In Cell Operation of thermal Arc Plasma Cutting System
3I-SOP-REC-A-38, Medium Pressure Spray Decontamination
3I-SOP-REC-F-02, Fire Safety Guidelines for Radiochemical Hot Cells
3I-SOP-REC-K-05, Radiochemical Engineering Cells (REC) Cranes
3I-SOP-REC-G-22, Hot Cell Combustible Materials Inventory

324 Facility B-Cell Quality Process Plan
HNF-2286 (Rev. 7)

Tables to be added by Document Revision

Table 6b - Size Reduce the 1A Rack – Tanks and Structure

Table 7 - Load and Ship Mixed Waste to PUREX Tunnels

Table 8 - Move Spent Fuel to A-Cell