51A-12
JAN 11 1995

ENGINEERING DATA TRANSMITTAL

Page 1 of 1
1. EDT 152967

2. To: (Receiving Organization)	3. From: (Originating Organization) B-Plant Facilities Engineering	4. Related EDT No.: NA
5. Proj./Prog./Dept./Div.: 16530	6. Cog. Engr.: DW Mertz	7. Purchase Order No.: NA
8. Originator Remarks: <i>This documentation is being completed after the tests have been performed in order to generate an OTR. All testing was performed satisfactorily.</i>		9. Equip./Component No.: NA
11. Receiver Remarks: RECEIVED JAN 24 1995 OSTI		10. System/Bldg./Facility: B26A/221B/2B
		12. Major Assm. Dwg. No.: H-2-36905
		13. Permit/Permit Application No.: NA
		14. Required Response Date: NA

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	WHC-SD-WM-OTP-172		0	B-Plant Canyon Fire Foam Sysyem	SQ	1	1	

16. KEY		
Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)										(G)	(H)
Reason	Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	Reason	Disp.
1	1	Cog. Eng.	<i>DW Mertz</i>	12/29/94	56-81						
		Cog. Mgr	<i>SAO B. Smith</i>	12/29/94	56-70						
		QA	<i>W. H. H. H.</i>	12/10/95							
		Safety	<i>SAO B. Smith</i>	9/29/95							
		Central Files	<i>(2)</i>	12-04							
		O.S.T.I.	<i>(2)</i>	12-07							

18. Signature of EDY <i>Tom Gaimy</i> Date 12/29/94	19. Authorized Representative Date for Receiving Organization	20. Cognizant Manager <i>SAO B. Smith</i> Date 12/29/94	21. DOE APPROVAL (if required) Ctrl. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments
--	---	--	---

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

RELEASE AUTHORIZATION

Document Number: WHC-SD-WM-OTP-172, REV 0

Document Title: B-PLANT CANYON FIRE FOAM SUPPLY

Release Date: 1/11/95

**This document was reviewed following the
procedures described in WHC-CM-3-4 and is:**

APPROVED FOR PUBLIC RELEASE

WHC Information Release Administration Specialist:

Kara M. Broz

January 11, 1995

TRADEMARK DISCLAIMER. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

This report has been reproduced from the best available copy. Available in paper copy and microfiche. Printed in the United States of America. Available to the U.S. Department of Energy and its contractors from:

U.S. Department of Energy
Office of Scientific and Technical Information (OSTI)
P.O. Box 62
Oak Ridge, TN 37831
Telephone: (615) 576-8401

Available to the public from: U.S. Department of Commerce
National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161
Telephone: (703) 487-4650

SUPPORTING DOCUMENT		1. Total Pages 24 186 25 11/1/95
2. Title B-PLANT CANYON FIRE FOAM SUPPLY	3. Number WHC-SD-WM-OTP-172	4. Rev No. 0
5. Key Words Fire Foam Operational Test APPROVED FOR PUBLIC RELEASE <i>RMB 1/11/95</i>	6. Author Name: T Gainey <i>Tom Gainey 12/29/94</i> Signature Organization/Charge Code 16530	

7. Abstract

A new raw water supply was installed for the B-Plant fire foam system. This document details tests to be performed which will demonstrate that the system can function as designed. The tests include: Verification of the operation of the automatic valves at the cells; Measurement of water flow and pressure downstream of the proportioner; Production of foam, and measurement of foam concentration. Included as an appendix is a copy of the work package resolution (J4 & J4a).

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

8. RELEASE STAMP
<div style="border: 1px solid black; padding: 5px; text-align: center;"> OFFICIAL RELEASE 18 BY WHC DATE JAN 11 1995 <i>STA. #2</i> </div>

B-PLANT CANYON FIRE FOAM SYSTEM

A new 4" raw water supply was installed from the 10" raw water main to the Canyon Fire Foam system. Tests are to be performed as a verification of the operability of this water supply, and the systems ability to produce foam. These tests will be performed by Fire Systems Testing and Maintenance (FSTM).

The tests will include:

1. Verification of the operation of the automatic valves at the cells. This test will be performed by simulating cell heat detector activation from the Facility Process Monitoring and Control System (FPMCS). The foam system will be valved out during this test to prevent the entry of water or foam solution into the cells.
2. Water will be flowed through the system. A fire hose will be connected just downstream of the proportioner, so water will flow through the new 4" raw water supply and the proportioner. Two tests will then be performed:
 - A. A flow meter will be installed in the hose to measure the water flow rate available through the proportioner.
 - B. A pressure gauge will be installed in the piping connection to measure the residual pressure while the water is flowing.
3. It will be demonstrated that the system can produce foam. A fire hose will be connected just downstream of the proportioner, the valves will be activated and foam solution flowed through the fire hose. Foam will be produced outside of the building. Foam samples will be collected by FSTM and sent to the manufacturer for analysis of the concentration.
4. After all of the tests have been performed the strainer on the new 4" raw water supply will be blown down. Water from this blowdown will be collected for observation. Water will be flushed through the strainer blowdown until it is visually clean.

All of the above steps are written in detail as FSTM work package number 2G-94-00459/W. See appendix A for a copy of the J4 and J4a.

APPENDIX A

Work Package 2G-94-00459/W
(J4 & J4a)

*** INFORMATION ONLY ***

=====J-4 RESOLUTION/RETEST (W140)=====

Page: 1

11:46:10 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

2. Essential Systems B
3. Resolution

OBJECTIVE: PERFORMANCE OF THIS WORK IS INTENDED TO PROVIDE INDICATION OF THE OPERABILITY OF SOME OF THE FOAM SYSTEM EQUIPMENT, THE ABILITY OF THE EQUIPMENT TO GENERATE FOAM PROPERLY, AND RESTORATION OF THE SYSTEM TO A NORMAL, OPERATIONAL STATUS. THIS WILL ALSO PROVIDE OPERATIONAL TEST DATA FOR ACCEPTANCE OF THE NEW 4" WATER SUPPLY RECENTLY INSTALLED

*****SEE J4A FOR DETAILED WORK STEPS*****

DISPOSAL OF WASTE TO BE PERFORMED BY B-PLANT PERSONNEL USING SEPERATE WORK PKG. GENERATED BY B-PLANT.

4. Approval Designators -S E
5. Tech Spec/OSR Requirements/Reference

6. Reference Documents	Type
HWS #9325	REF
H-2-36905	DRAW
H-2-821772 SHEET #1	REF
H-2-821772 SHEET #2	REF
B-101, EXP. -3-25-95	RWP
ATTACHMENT #1	REF
EI-369-94	

7. Comments

THE WORK RESULTANT FROM PERFORMANCE OF THIS PKG. DOES, IN NO WAY, PROVE THE ABSOLUTE OPERATIONAL VIABILITY OF THE B-PLANT FOAM SYSTEM. SINCE THE ACTIVATION OF THE SYSTEM IS TO BE DONE REMOTELY/MANUALLY AS OPPOSED TO THE AUTOMATIC, IN-CELL DEVICE INITIATION PROVIDED FOR NORMAL STATUS OPERATION. THIS WORK TO BE DONE IN RESPONSE TO B-PLANT REQUESTS. THIS WORK MAY HAVE SOME VALUE, WITH REGARD TO FOAM GENERATION CAPABILITY, BUT TOTAL NFPA CODE COMPLIANCE UPON COMPLETION OF THIS WORK SHOULD NOT BE PRESUMED NOR INFERRED. THIS WORK PKG. WILL ALSO PROVIDE FOR THE OPERATIONAL ACCEPTANCE OF THE NEW 4" RAW WATER SUPPLY INSTALLED BY KEH CONSTRUCTION FORCES.

8. Retest Requirement Y
9. Mode ANY TIME
10. Retest

VISUAL INSPECTION OF ALL DISTURBED PIPING CONNECTIONS. NO LEAKAGE IS PERMITTED AND ANY LEAKAGE FOUND TO BE CORRECTED PRIOR

=====J-4 RESOLUTION/RETEST (W140)=====

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4 RESOLUTION/RETEST (W140)

Page: 2

11:46:10 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

TO PKG. COMPLETION.
HFD TO ASSURE THAT ALL SYSTEM ALARM CAPABILITIES HAVE BEEN
RETURNED TO NORMAL STATUS.

11. QC Involvement in Retest NONE

12. PIC BLANKINGSHIP,E

13. PIC Org. 3C630

14. Resolution By Signature X CRADDOCK,WL Date 11/09/94

15. Plant Forces Work Review Required N Number N/A

16. Approvals Signature Date
Cognizant Engineer X CRADDOCK,WL 11/09/94
Cognizant Manager BLANKINGSHIP,E
Environmental Assurance
Health/Safety Assurance
Quality Assurance N/A
Additional Approvals

17. Resources Required

Res Code	Description	No.	Est Hrs	Act Hrs
24F	PLUMBER/STEAMFITTER-FIRE PROTE	4	32	32
41	Firefighter	3	16	16
04	OPERATOR	2	24	
54	Radiation Protection Technicia	1	16	

18. Field Work Complete Signature BLANKINGSHIP,WL Date 12/19/94
19. Retest Satisfactory
20. QC Verify Retest (If Required) N/A

J-4 RESOLUTION/RETEST (W140)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

=====J-4a RESOLUTION/RETEST (W145)=====

Page: 1

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W *GENERIC WORK ITEM*
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

3. Resolution

OBJECTIVES OF THIS WORK PKG:

TEST THE OPERABILITY OF THE FOAM SYSTEM ELECTRICALLY OPERATED VALVES THRU MANUAL INITIATION WITHOUT ACTUALLY FLOWING WATER OR FOAM IN THE PIPING.

FLOW WATER FROM FOAM SYSTEM SUPPLY THROUGH FIRE HOSE AND MEASURE FLOW (GPM) AND PRESSURE (PSIG)

FLOW PROPORTIONED FOAM/WATER MIXTURE FOR A SET PERIOD OF TIME

GENERATE FOAM FOR A SET PERIOD OF TIME (DURING THE ABOVE MENTIONED FLOWING) TO VISUALLY OBSERVE THE GENERAL PHYSICAL CHARACTERISTICS OF THE FOAM AND PROVIDE SAMPLES FOR ANALYSIS.

REPLENISH THE FOAM CONCENTRATE IN THE FOAM TANK AND RETURN THE SYSTEM TO NORMAL, OPERATIONAL STATUS.

NOTE: B-PLANT TO PROVIDE ALL SUPPORT PERSONNEL, I.E. HPT'S, OPERATORS, ETC. AS NEEDED.

NOTE: COMPLIANCE WITH ANY/ALL RADIOLOGICAL CONTROL REQUIREMENTS IS MANDATORY

NOTE: B-PLANT TO PROVIDE ALL WASTE DISPOSAL MATERIALS, CONTAINERS, PERSONNEL, AND FUNCTIONS

NOTE: FACILITY LOCK AND TAG TO BE UTILIZED AS APPLICABLE AND AS PER FACILITY REQUIREMENTS

NOTE: A PRE-JOB MEETING TO BE CONDUCTED TO COVER DIFFERENT STEPS INVOLVED WITH THIS WORK, COMMUNICATION METHODS, SAFETY ITEMS, RADIOLOGICAL ITEMS, ETC.

NOTE: HPT TO SAMPLE AND MONITOR ALL DISCHARGES

NOTE: SEE ATTACHMENT #1 (THIS WORK PKG.) FOR WASTE HANDLING PLAN

NOTE: THIS WORK TO BE PERFORMED IN TWO SEQUENTIAL PHASES, EACH OF WHICH IS GENERALLY INDEPENDENT OF EACH OTHER. EACH PHASE IS CLEARLY NOTED IN THIS WORK PKG. AND NUMBERING OF EACH PHASES WORK STEPS COMMENCES WITH NUMBER 1.

NOTE: SAMPLES TAKEN DURING PHASE 2 TO BE RADIOLOGICALLY

=====J-4a RESOLUTION/RETEST (W145)=====

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

=====J-4a RESOLUTION/RETEST (W145)=====

Page: 2

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

RELEASED PRIOR TO BEING SENT TO MANUFACTURER FOR
ANALYSIS. FSTM TO SEND SAMPLES, TAKE RECEIPT OF ANALYSIS
RESULTS, AND MAKE THOSE FINDINGS KNOWN TO FACILITY FIRE
SYSTEM COG ENGINEER.

***** PHASE #1 *****

***** MANUALLY OPERATE THE MOTOR OPERATED CELL FOAM VALVES *****

1. ASSURE THAT FACILITY AND HFD DISPATCH HAS BEEN NOTIFIED AND
HAS APPROVED PERFORMANCE OF THIS WORK PRIOR TO START OF WORK

2. HFD TO BYPASS RFAR #2470

3. CLOSE OR VERIFY THAT THE FOLLOWING VALVES ARE IN THE CLOSED
POSITION:

260-FIRE 1 VERIFIED CLOSED INIT/DATE _____

26P-FIRE 11 VERIFIED CLOSED INIT/DATE _____

26P-FIRE 10 VERIFIED CLOSED INIT/DATE _____

10P-FIRE 4 VERIFIED CLOSED INIT/DATE _____

26P-FIRE 4 VERIFIED CLOSED INIT/DATE _____

27P-FIRE 4 VERIFIED CLOSED INIT/DATE _____

28P-FIRE 4 VERIFIED CLOSED INIT/DATE _____

29P-FIRE 4 VERIFIED CLOSED INIT/DATE _____

30P-FIRE 4 VERIFIED CLOSED INIT/DATE _____

4. VERIFY VALVE 26P-FIRE 13 INDICATOR SHOWS CLOSED POSITION

VERIFIED CLOSED INIT/DATE _____

5. INSTALL PLUGS IN SOLENOID VALVE CONTROLLING AIR DISCHARGE
FROM VALVE 26P-FIRE 13.

PLUGS INSTALLED INIT/DATE _____

6. VERIFY THAT THE 221B FACP SHOWS TROUBLE AND ALARM
XA-221B-CFI IS ACTIVATED ON THE FPMCS IN DISPATCHERS OFFICE.

=====J-4a RESOLUTION/RETEST (W145)=====

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

=====J-4a RESOLUTION/RETEST (W145)=====

Page: 3

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE
=====

7. ESTABLISH 2-WAY RADIO COMMUNICATION BETWEEN OBSERVER AT CELL 10, OBSERVER AT CELL 26, OBSERVER AT CELL 30, AND DISPATCH OFFICE.
8. ASSURE THAT POWER IS ON TO ALL FIRE ALARM CIRCUITS
9. DISPATCH OFFICE NOTIFY OBSERVERS OF IMMEDIATE INTENT TO OPERATE VALVE 10P-FIRE 3. OBSERVERS BEGIN OBSERVATION OF VALVES.
10. SET SELECTOR SWITCH FOR CELL 10 CFPC (IN DISPATCHER'S OFFICE) TO SPRAY ON POSITION.
11. DISPATCH OFFICE VERIFY THAT CELL 10 SPRAY INDICATOR ON THE CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.

**NOTE: IF INDICATOR FAILS TO RESPOND PROPERLY, NOTIFY PIC FOR INSTRUCTION PRIOR TO CONTINUING.
12. CELL 10 OBSERVER VERIFY THAT VALVE 10P-FIRE 3 OPENED BY OBSERVING VALVE ACTUATION MOVEMENT.
13. CELL 10 OBSERVER VERIFY THAT CHAINS IN PLASTIC BAG DID NOT HINDER OPERATION OF VALVE.
14. CELL 26/30 OBSERVERS VERIFY THAT NO MOVEMENT WAS OBSERVED AT 26P-FIRE 3, 27P-FIRE 3, 28P-FIRE 3, 29P-FIRE 3, NOR 30P-FIRE 3. IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM DETERMINED AND CORRECTED.
15. DISPATCH OFFICE NOTIFY CELL 10 OBSERVER OF IMMEDIATE INTENT TO CLOSE VALVE 10P-FIRE 3. CELL 10 OBSERVER BEGIN OBSERVATION OF VALVE.
16. DISPATCH OFFICE SET SELECTOR SWITCH TO CELL 10 SPRAY STOP POSITION ON THE CFPC.
17. VERIFY THAT SPRAY STOPPED INDICATOR LIGHT ON THE CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.
18. CELL 10 OBSERVER VERIFY THAT VALVE 10P-FIRE 3 CLOSED AND THAT THE CHAINS DID NOT HINDER VALVE OPERATION.
19. CELL 26/30 OBSERVERS VERIFY THAT NO MOVEMENT WAS OBSERVED AT 26P-FIRE 3, 27P-FIRE 3, 28P-FIRE 3, 29P-FIRE 3, NOR 30P-FIRE 3. IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY

=====J-4a RESOLUTION/RETEST (W145)=====

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 4

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM
DETERMINED AND CORRECTED.

20. DISPATCH OFFICE INITIAL/DATE/COMMENT ON PROPER OPERATION OF
CELL 10 EQUIPMENT AS TESTED IN STEPS 7 THROUGH 19 ABOVE.

***** CELL 10 *****

ALL EQUIPMENT OPERATED AS REQUIRED. INIT/DATE _____
COMMENTS:

21. ESTABLISH 2-WAY RADIO COMMUNICATION BETWEEN OBSERVER AT CELL
26, OBSERVER AT CELL 30, OBSERVER AT CELL 10, AND DISPATCH
OFFICE.
22. DISPATCH OFFICE NOTIFY OBSERVERS OF IMMEDIATE INTENT TO
OPERATE VALVE 26P-FIRE 3. OBSERVER BEGIN OBSERVATION OF
VALVE.
23. SET SELECTOR SWITCH FOR CELL 26 CFCP (IN DISPATCHER'S
OFFICE) TO SPRAY ON POSITION.
24. DISPATCH OFFICE VERIFY THAT CELL 26 SPRAY INDICATOR ON THE
CFCP IS ON. RELAY VERIFICATION TO OBSERVERS.
- **NOTE: IF INDICATOR FAILS TO RESPOND PROPERLY, NOTIFY PIC
FOR INSTRUCTION PRIOR TO CONTINUING.
25. CELL 26 OBSERVER VERIFY THAT VALVE 26P-FIRE 3 OPENED BY
OBSERVING VALVE ACTUATION MOVEMENT.
26. CELL 26 OBSERVER VERIFY THAT CHAINS IN PLASTIC BAG DID NOT
HINDER OPERATION OF VALVE.
27. CELL 30 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT
27P-FIRE 3, 28P-FIRE 3, 29P-FIRE 3, NOR 30P-FIRE 3,
CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT
10P-FIRE 3.
IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY
DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM
DETERMINED AND CORRECTED.
28. DISPATCH OFFICE NOTIFY CELL 26 OBSERVER OF IMMEDIATE INTENT
TO CLOSE VALVE 26P-FIRE 3. CELL 26 OBSERVER BEGIN

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 5

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

OBSERVATION OF VALVE.

29. DISPATCH OFFICE SET SELECTOR SWITCH TO CELL 26 SPRAY STOP POSITION ON THE CFPC.
30. VERIFY THAT SPRAY STOPPED INDICATOR LIGHT ON THE CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.
31. CELL 26 OBSERVER VERIFY THAT VALVE 26P-FIRE 3 CLOSED AND THAT THE CHAINS DID NOT HINDER VALVE OPERATION.
32. CELL 29 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 27P-FIRE 3, 28P-FIRE 3, 29P-FIRE 3, NOR 30P-FIRE 3. CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 10P-FIRE 3. IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM DETERMINED AND CORRECTED.
33. DISPATCH OFFICE INITIAL/DATE/COMMENT ON PROPER OPERATION OF CELL 26 EQUIPMENT AS TESTED IN STEPS 21 THROUGH 32 ABOVE.

***** CELL 26 *****

ALL EQUIPMENT OPERATED AS REQUIRED. INIT/DATE _____
COMMENTS:

34. ESTABLISH 2-WAY RADIO COMMUNICATION BETWEEN OBSERVER AT CELL 27, OBSERVER AT CELL 30, OBSERVER AT CELL 10, AND DISPATCH OFFICE.
35. DISPATCH OFFICE NOTIFY OBSERVERS OF IMMEDIATE INTENT TO OPERATE VALVE 27P-FIRE 3. OBSERVER BEGIN OBSERVATION OF VALVE.
36. SET SELECTOR SWITCH FOR CELL 27 CFPC (IN DISPATCHER'S OFFICE) TO SPRAY ON POSITION.
37. DISPATCH OFFICE VERIFY THAT CELL 27 SPRAY INDICATOR ON THE CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.

**NOTE: IF INDICATOR FAILS TO RESPOND PROPERLY, NOTIFY PIC FOR INSTRUCTION PRIOR TO CONTINUING.

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 6

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

38. CELL 27 OBSERVER VERIFY THAT VALVE 27P-FIRE 3 OPENED BY OBSERVING VALVE ACTUATION MOVEMENT.
39. CELL 27 OBSERVER VERIFY THAT CHAINS IN PLASTIC BAG DID NOT HINDER OPERATION OF VALVE.
40. CELL 30 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 26P-FIRE 3, 28P-FIRE 3, 29P-FIRE 3, NOR 30P-FIRE 3.
CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 10P-FIRE 3.
IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM DETERMINED AND CORRECTED.
41. DISPATCH OFFICE NOTIFY CELL 27 OBSERVER OF IMMEDIATE INTENT TO CLOSE VALVE 27P-FIRE 3. CELL 27 OBSERVER BEGIN OBSERVATION OF VALVE.
42. DISPATCH OFFICE SET SELECTOR SWITCH TO CELL 27 SPRAY STOP POSITION ON THE CFPC.
43. VERIFY THAT SPRAY STOPPED INDICATOR LIGHT ON THE CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.
44. CELL 27 OBSERVER VERIFY THAT VALVE 27P-FIRE 3 CLOSED AND THAT THE CHAINS DID NOT HINDER VALVE OPERATION.
45. CELL 30 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 26P-FIRE 3, 28P-FIRE 3, 29P-FIRE 3, NOR 30P-FIRE 3.
CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 10P-FIRE 3.
IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM DETERMINED AND CORRECTED.
46. DISPATCH OFFICE INITIAL/DATE/COMMENT ON PROPER OPERATION OF CELL 27 EQUIPMENT AS TESTED IN STEPS 34 THROUGH 45 ABOVE.

***** CELL 27 *****

ALL EQUIPMENT OPERATED AS REQUIRED. INIT/DATE _____
COMMENTS:

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

=====J-4a RESOLUTION/RETEST (W145)=====

Page: 7

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W *GENERIC WORK ITEM*
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

-
47. ESTABLISH 2-WAY RADIO COMMUNICATION BETWEEN OBSERVER AT CELL 28, OBSERVER AT CELL 30, OBSERVER AT CELL 10, AND DISPATCH OFFICE.
 48. DISPATCH OFFICE NOTIFY OBSERVERS OF IMMEDIATE INTENT TO OPERATE VALVE 28P-FIRE 3. OBSERVER BEGIN OBSERVATION OF VALVE.
 49. SET SELECTOR SWITCH FOR CELL 28 CFPC (IN DISPATCHER'S OFFICE) TO SPRAY ON POSITION.
 50. DISPATCH OFFICE VERIFY THAT CELL 28 SPRAY INDICATOR ON THE CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.
- **NOTE: IF INDICATOR FAILS TO RESPOND PROPERLY, NOTIFY PIC FOR INSTRUCTION PRIOR TO CONTINUING.
51. CELL 28 OBSERVER VERIFY THAT VALVE 28P-FIRE 3 OPENED BY OBSERVING VALVE ACTUATION MOVEMENT.
 52. CELL 28 OBSERVER VERIFY THAT CHAINS IN PLASTIC BAG DID NOT HINDER OPERATION OF VALVE.
 53. CELL 30 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 26P-FIRE 3, 27P-FIRE 3, 29P-FIRE 3, NOR 30P-FIRE 3. CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 10P-FIRE 3. IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM DETERMINED AND CORRECTED.
 54. DISPATCH OFFICE NOTIFY CELL 28 OBSERVER OF IMMEDIATE INTENT TO CLOSE VALVE 28P-FIRE 3. CELL 28 OBSERVER BEGIN OBSERVATION OF VALVE.
 55. DISPATCH OFFICE SET SELECTOR SWITCH TO CELL 28 SPRAY STOP POSITION ON THE CFPC.
 56. VERIFY THAT SPRAY STOPPED INDICATOR LIGHT ON THE CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.
 57. CELL 28 OBSERVER VERIFY THAT VALVE 28P-FIRE 3 CLOSED AND THAT THE CHAINS DID NOT HINDER VALVE OPERATION.
 58. CELL 30 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 26P-FIRE 3, 27P-FIRE 3, 29P-FIRE 3, NOR 30P-FIRE 3. CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 10P-FIRE 3.

=====J-4a RESOLUTION/RETEST (W145)=====

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

=====J-4a RESOLUTION/RETEST (W145)=====

Page: 8

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

=====

IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY
DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM
DETERMINED AND CORRECTED.

59. DISPATCH OFFICE INITIAL/DATE/COMMENT ON PROPER OPERATION OF
CELL 28 EQUIPMENT AS TESTED IN STEPS 47 THROUGH 58 ABOVE.

***** CELL 28 *****

ALL EQUIPMENT OPERATED AS REQUIRED. INIT/DATE _____
COMMENTS: _____

60. ESTABLISH 2-WAY RADIO COMMUNICATION BETWEEN OBSERVER AT CELL
29, OBSERVER AT CELL 30, OBSERVER AT CELL 10, AND DISPATCH
OFFICE.
61. DISPATCH OFFICE NOTIFY OBSERVERS OF IMMEDIATE INTENT TO
OPERATE VALVE 29P-FIRE 3. OBSERVER BEGIN OBSERVATION OF
VALVE.
62. SET SELECTOR SWITCH FOR CELL 29 CFCP (IN DISPATCHER'S
OFFICE) TO SPRAY ON POSITION.
63. DISPATCH OFFICE VERIFY THAT CELL 29 SPRAY INDICATOR ON THE
CFCP IS ON. RELAY VERIFICATION TO OBSERVERS.
- **NOTE: IF INDICATOR FAILS TO RESPOND PROPERLY, NOTIFY PIC
FOR INSTRUCTION PRIOR TO CONTINUING.
64. CELL 29 OBSERVER VERIFY THAT VALVE 29P-FIRE 3 OPENED BY
OBSERVING VALVE ACTUATION MOVEMENT.
65. CELL 29 OBSERVER VERIFY THAT CHAINS IN PLASTIC BAG DID NOT
HINDER OPERATION OF VALVE.
66. CELL 30 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT
26P-FIRE 3, 27P-FIRE 3, 28P-FIRE 3, NOR 30P-FIRE 3,
CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT
10P-FIRE 3.
IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY
DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM
DETERMINED AND CORRECTED.
67. DISPATCH OFFICE NOTIFY CELL 29 OBSERVER OF IMMEDIATE INTENT

=====J-4a RESOLUTION/RETEST (W145)=====

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

=====J-4a RESOLUTION/RETEST (W145)=====

Page: 9

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
 Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

TO CLOSE VALVE 29P-FIRE 3. CELL 29 OBSERVER BEGIN
 OBSERVATION OF VALVE.

68. DISPATCH OFFICE SET SELECTOR SWITCH TO CELL 29 SPRAY STOP
 POSITION ON THE CFPC.
69. VERIFY THAT SPRAY STOPPED INDICATOR LIGHT ON THE CFPC IS ON.
 RELAY VERIFICATION TO OBSERVERS.
70. CELL 29 OBSERVER VERIFY THAT VALVE 29P-FIRE 3 CLOSED AND
 THAT THE CHAINS DID NOT HINDER VALVE OPERATION.
71. CELL 30 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT
 26P-FIRE 3, 27P-FIRE 3, 28P-FIRE 3, NOR 30P-FIRE 3.
 CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT
 10P-FIRE 3.
 IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY
 DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM
 DETERMINED AND CORRECTED.
72. DISPATCH OFFICE INITIAL/DATE/COMMENT ON PROPER OPERATION OF
 CELL 29 EQUIPMENT AS TESTED IN STEPS 60 THROUGH 71 ABOVE.

***** CELL 29 *****

ALL EQUIPMENT OPERATED AS REQUIRED. INIT/DATE _____
 COMMENTS: _____

73. ESTABLISH 2-WAY RADIO COMMUNICATION BETWEEN OBSERVER AT CELL
 30, OBSERVER AT CELL 26, OBSERVER AT CELL 10, AND DISPATCH
 OFFICE
74. DISPATCH OFFICE NOTIFY OBSERVERS OF IMMEDIATE INTENT TO
 OPERATE VALVE 30P-FIRE 3. OBSERVER BEGIN OBSERVATION OF
 VALVE.
75. SET SELECTOR SWITCH FOR CELL 30 CFPC (IN DISPATCHER'S
 OFFICE) TO SPRAY ON POSITION.
76. DISPATCH OFFICE VERIFY THAT CELL 30 SPRAY INDICATOR ON THE
 CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.

**NOTE: IF INDICATOR FAILS TO RESPOND PROPERLY, NOTIFY PIC
 FOR INSTRUCTION PRIOR TO CONTINUING.

=====J-4a RESOLUTION/RETEST (W145)=====

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

-----J-4a RESOLUTION/RETEST (W145)-----

Page: 10

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

77. CELL 30 OBSERVER VERIFY THAT VALVE 30P-FIRE 3 OPENED BY OBSERVING VALVE ACTUATION MOVEMENT.
78. CELL 30 OBSERVER VERIFY THAT CHAINS IN PLASTIC BAG DID NOT HINDER OPERATION OF VALVE.
79. CELL 26 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 26P-FIRE 3, 27P-FIRE 3, 28P-FIRE 3, NOR 29P-FIRE 3, CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 10P-FIRE 3.
IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM DETERMINED AND CORRECTED.
80. DISPATCH OFFICE NOTIFY CELL 30 OBSERVER OF IMMEDIATE INTENT TO CLOSE VALVE 30P-FIRE 3. CELL 30 OBSERVER BEGIN OBSERVATION OF VALVE.
81. DISPATCH OFFICE SET SELECTOR SWITCH TO CELL 30 SPRAY STOP POSITION ON THE CFPC.
82. VERIFY THAT SPRAY STOPPED INDICATOR LIGHT ON THE CFPC IS ON. RELAY VERIFICATION TO OBSERVERS.
83. CELL 30 OBSERVER VERIFY THAT VALVE 30P-FIRE 3 CLOSED AND THAT THE CHAINS DID NOT HINDER VALVE OPERATION.
84. CELL 26 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 26P-FIRE 3, 27P-FIRE 3, 28P-FIRE 3, NOR 29P-FIRE 3. CELL 10 OBSERVER VERIFY THAT NO MOVEMENT WAS OBSERVED AT 10P-FIRE 3.
IF ANY MOVEMENT OF THESE VALVES WAS OBSERVED, NOTIFY DISPATCHERS OFFICE AND PIC. STOP ALL WORK UNTIL PROBLEM DETERMINED AND CORRECTED.
85. DISPATCH OFFICE INITIAL/DATE/COMMENT ON PROPER OPERATION OF CELL 30 EQUIPMENT AS TESTED IN STEPS 73 THROUGH 84 ABOVE.

***** CELL 30 *****

ALL EQUIPMENT OPERATED AS REQUIRED. INIT/DATE _____
COMMENTS:

-----J-4a RESOLUTION/RETEST (W145)-----

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 11

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

86. DISPATCH OFFICE VERIFY THAT CELL 10,26,27,28,29,30 CFPC
INDICATORS ALL SHOW SPRAY STOP STATUS.

INIT/DATE _____

87. PIPE GALLERY OBSERVERS VERIFY POSITION INDICATORS ON VALVES
10P-FIRE 3, 26P-FIRE 3, 27P-FIRE 3, 28P-FIRE 3, 29P-FIRE 3,
AND 30P-FIRE 3 SHOW VALVES TO BE CLOSED.

INIT/DATE _____

*****NOTE: THIS COMPLETES THE FIRST PHASE OF THIS *****
***** WORK. THE NUMBERING OF INDIVIDUAL WORK *****
***** STEPS WILL START WITH NUMBER 1 FOR *****
***** EACH SEPARATE PHASE. *****

***** PHASE 2 *****

*****MEASURE WATER FLOW RATE AND PRESSURE*****

*****NOTE: PERFORMANCE OF THIS PHASE OF WORK WILL COMMENCE
WITH THE SAME VALVE LINE-UP LEFT AT THE END OF
PHASE 1. HOWEVER, A VERIFICATION OF SOME OF THE
VALVE POSITIONS IS CONSIDERED PRUDENT PRIOR TO
START OF THIS PHASE:

1. VERIFY THAT 26P-FIRE 8 (STRAINER BLOW-DOWN), 26P-FIRE 1,
26P-FIRE 10, AND 26P-FIRE 11 ARE CLOSED. ASSURE THAT PLUGS
ARE STILL IN PLACE IN DISCHARGE SOLENOID VALVE AT 26P-FIRE
13.

ABOVE CONDITION VERIFIED CORRECT INIT/DATE _____

2. STRING 2 1/2" FIRE HOSE FROM FOAM TANK LOCATION TO VERTICAL
TANK (TANKS NO LONGER THERE) ENCLOSURE NNE OF DOOR #9.

***ASSURE THAT SHIFT MGR. HAS APPROVED THE DOOR USAGE. SOME
DOORS THAT WILL HAVE TO BE LEFT PROPPED OPEN MAY BE FIRE
DOORS. APPROVAL OF SHIFT MGR. REQUIRED. FIRE WATCH AT
DOORS SHOULD BE ESTABLISHED DURING TIME THAT DOORS ARE OPEN

DOORS THAT WILL BE LEFT OPEN DURING PERFORMANCE OF
THIS WORK:

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 12

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

APPROVED: B-PLANT SHIFT MGR. SIGNATURE/DATE

3. ASSURE THAT FIRE HOSE HAS A SHUT-OFF VALVE ATTACHED TO DOWNSTREAM TERMINAL END, HOSE IS LASHED DOWN TO PREVENT POSSIBLE SPILL OR SAFETY HAZARD, SHUT-OFF VALVE IS OPEN, AND HOSE IS PROPERLY POSITIONED TO ASSURE DISCHARGE INTO ENCLOSURE.

4. ASSURE THAT ALL ENCLOSURE OPENINGS HAVE BEEN PLUGGED.

***NOTE: SEE ATTACHMENT #1 WASTE HANDLING PLAN IN THIS WORK PKG.

5. ATTACH HOSE (USING APPROPRIATE ADAPTING HARDWARE AS NEEDED) TO DOWNSTREAM OPENING OF VALVE 26P-FIRE 11.

6. USING 2-WAY RADIO COMMUNICATIONS, HAVE 26P-FIRE 11 OPENED AND DRAIN SYSTEM INTO ENCLOSURE UNTIL ALL FLOW STOPS. CLOSE 26P-FIRE 11.

NOTE: HPT CHECK DISCHARGE

READING INIT/DATE

7. DISCONNECT FIRE HOSE FROM 26P-FIRE 11 AND PLUG VALVE OUTLET. LIQUID MAY BE TRAPPED INSIDE FIRE HOSE. PLUG THE END OR SECURE HOSE IN AN ELEVATED POSITION TO PREVENT SPILLAGE.

8. DISCONNECT 4" PIPING AT THE FIRST VICTAULIC COUPLING DOWNSTREAM OF PROPORTIONER.

9. INSTALL THE 2 1/2" FIRE HOSE (USING NECESSARY ADAPTERS) TO THE PIPING DISCONNECTED IN STEP 8, ABOVE SO THAT PROPORTIONER DISCHARGE WILL BE DIRECTED THROUGH HOSE AND INTO ENCLOSURE. INSTALL PRESSURE GAUGE (0-300 PSI) INTO HOSE/ADAPTER ASSEMBLY

10. INSTALL A FLOWMETER DOWNSTREAM OF HOSE SHUT-OFF VALVE AT ENCLOSURE.

11. USING 2-WAY RADIO COMMUNICATIONS, HAVE VALVE 260-FIRE 1 OPENED FULLY.

12. ALLOW FLOW INTO ENCLOSURE TO DISCHARGE FOR APPROXIMATELY 90 SECONDS FROM BEGINNING OF FLOW. THIS SHOULD ALLOW AIR TO

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 13

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

ESCAPE. NOTE FLOW AND PRESSURE READINGS AT THE END OF THE
90 SECOND PERIOD. ENTER READINGS BELOW PLUS HPT READINGS:

HPT _____ READING INIT/DATE _____

FLOWRATE: _____ GPM INIT/DATE

PRESSURE: _____ PSIG INIT/DATE

13. HAVE VALVE 260-FIRE 1 CLOSED.
14. CLOSE HOSE END SHUT-OFF VALVE AND REMOVE FLOWMETER.
15. INSTALL NOZZLE ONTO HOSE END SHUT-OFF VALVE. ASSURE THAT
HOSE IS POSITIONED TO POINT DOWNWARD TO PREVENT SPLASHING OR
SPILLAGE GETTING OUTSIDE OF ENCLOSURE.
16. POSITION COLLECTION/SAMPLE PANS(2) IN ENCLOSURE SO THAT FOAM
CAN BE COLLECTED FOR SAMPLING PURPOSES. A LANYARD SHOULD BE
ATTACHED TO PANS SO THEY CAN BE RETRIEVED TO THE SIDE OF
ENCLOSURE WITHOUT PERSONNEL HAVING TO ENTER ENCLOSURE.
POSITIONING OF PANS SHOULD BE SUCH THAT NO FOAM WILL BE
DIRECTED INTO THEM UNTIL FOAM QUALITY HAS REACHED MAXIMUM
LEVEL. A CLEAN WEIGHT OF ANY SORT SHOULD BE PLACED IN PANS
TO PREVENT THEM FROM TIPPING OVER DURING FOAM DISCHARGE.
17. OPEN 26P-FIRE 10
18. ** SLOWLY OPEN 260-FIRE 1 **
19. ESTABLISH 2-WAY RADIO COMMUNICATIONS BETWEEN FOAM TANK SITE,
DISPATCH OFFICE, AND ENCLOSURE.
20. REMOVE PLUGS FROM SOLENOID VALVE PORTS AT 26P-FIRE 13.
21. DISPATCH OFFICE NOTIFY ENCLOSURE PERSONNEL OF IMMEDIATE
INTENT TO OPERATE FOAM SYSTEM
22. ATTACH ELECTRICAL JUMPER BETWEEN TERMINALS C AND B; WIRE
NUMBERS FSIC AND FSIB IN THE FIRE ALARM CONTROL PANEL. THIS
WILL PLACE ZONE 30 INTO ALARM AND OPERATE VALVE 26P-FIRE 13.

VERIFY 26P-FIRE 13 INDICATOR SHOWS OPEN

26P-FIRE 13 INDICATOR SHOWS OPEN _____ INIT/DATE
23. ASSURING THAT HOSE NOZZLE IS DIRECTED DOWNWARD AND NOT
TOWARD COLLECTION/SAMPLE PANS, OBSERVE FLOW INTO DISCHARGE

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 14

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

FOR APPROXIMATELY 2 MINUTES. WHEN THE APPREARANCE OF
DISCHARGE BECOMES A FOAM, DIRECT DISCHARGE OVER
COLLECTION/SAMPLE PANS UNTIL THEY ARE BOTH COVERED AND FULL
OF FOAM. HPT TAKE READING DURING THIS DISCHARGE.

HPT _____ READING INIT/DATE _____

**NOTE: HANFORD FIRE DEPT. PERSON VERY FAMILIAR WITH FOAM
DISCHARGE APPREARANCE TO PROVIDE COMMENTS ON VISUAL
APPEARANCE OF FOAM THAT WAS DISCHARGED:

COMMENTS _____

SIGN/DATE

**NOTE: HFD TO TAKE REFRACTOMETER READINGS OF DISCHARGED
FOAM FOR PRELIMINARY ANALYSIS. THESE READING ARE
NOT INTENDED TO SUPERCEDE SAMPLES WHICH WILL BE
SENT TO MANUFACTURER FOR ANALYSIS.

READING _____

SIGN/DATE

24. REMOVE ELECTRICAL JUMPER INSTALLED IN STEP 22 ABOVE AND
RESET THE FIRE ALARM CONTROL PANEL. THIS WILL CLOSE VALVE
26P-FIRE 13.

VERIFY 26P-FIRE 13 SHOWS CLOSED

26P-FIRE 13 INDICATOR SHOWS CLOSED _____ INIT/DATE

25. INSTALL PLUGS INTO SOLENOID DISCHARGE PORTS AT 26P-FIRE 13.

PLUGS INSTALLED INTO SOLENOID VALVE _____ INIT/DATE

26. AT ENCLOSURE, PERSONNEL OBSERVE DISCHARGE QUALITY UNTIL
DISCHARGE APPEARS TO BE WATER ONLY. CONTINUE FLOW FOR AT
APPROXIMATELY 2 MINUTES TO FLUSH OUT HOSES AND EQUIPMENT.

27. NOTIFY PERSONNEL AT FOAM TANK SITE TO CLOSE 260-FIRE 1 AND
26P-FIRE 10.

28. DRAIN LIQUID TRAPPED IN HIGH POINTS OF HOSE SETUP INTO

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 15

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

BARREL/BUCKET/ETC. THROUGH 26P-FIRE 11. DO THIS VERY SLOWLY TO AVOID SPILLAGE. CONTINUE DRAINING UNTIL FLOW CEASES.

29. DISCONNECT FIRE HOSE, AND CAREFULLY MAINTAINING HIGH POINT FOR GRAVITY ASSIST, DRAIN HOSE INTO ENCLOSURE.
30. RECONNECT SYSTEM PIPING TO NORMAL CONFIGURATION. THIS INCLUDES REMOVAL OF THE TEMPORARY 2 1/2" PIPING/HOSE LINE THAT WAS INSTALLED AT AN EARLIER DATE AND INSTALLATION OF HOSE FITTINGS INTO VALVES.
31. HPT SURVEY ALL MATERIALS/HARDWARE FOR RELEASE PRIOR TO REMOVAL FROM VARIOUS LOCATIONS.
32. AT ENCLOSURE, RETRIEVE COLLECTION/SAMPLE PANS TO SIDE OF ENCLOSURE AND AS SOON AS COLLECTED FOAM HAS RETURNED TO A FULLY LIQUID STATE, REMOVE A 1 QUART SAMPLE FROM EACH PAN. ASSURE THAT SAMPLES ARE LABELLED AS : PROPORTIONED/DISCHARGE SAMPLE.
33. AT FOAM TANK, VERIFY THAT 26P-FIRE 10 AND 260-FIRE 1 ARE CLOSED TIGHTLY.
34. REMOVE TWO (2) ONE QUART SAMPLES FROM WATER SIDE OF TANK, THROUGH VALVE 26P-FIRE 15. WATER SIDE FILL PLUG MAY HAVE TO BE LOOSENED FOR VENTING. LABEL AS: WATER SIDE SAMPLE
35. CONTINUE DRAINING WATER SIDE OF TANK INTO BUCKETS/BARRELS UNTIL WATER SIDE IS EMPTY.
36. USING PUMP/FUNNEL OR OTHER MEANS, FILL CONCENTRATE SIDE OF TANK WITH NEW "ANSULITE" 6% AFFF (AFC-3) THROUGH CONCENTRATE FILL OPENING ON TOP OF TANK. USE CAUTION TO NOT SPILL CONCENTRATE. FILLING SLOWLY WILL MINIMIZE FOAMING AND THUS MINIMIZE FILLING PROBLEMS. NOTE THE AMOUNT OF CONCENTRATE ADDED TO TANK.

"ANSULITE" 6% AFFF (AFC-3) ADDED: _____ GAL.

INIT/DATE _____

37. REMOVE TWO (2) ONE QUART SAMPLES FROM CONCENTRATE DRAIN VALVE 26P-FIRE 14. LABEL AS: SYSTEM CONCENTRATE
38. REPLACE THE 2 QUARTS REMOVED DURING STEP 37 ABOVE FROM FRESH CONCENTRATE SUPPLY. THIS WILL EFFECTIVELY "TOP OFF" THE TANK.

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 16

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

39. ASSURE THAT 26P-FIRE 14 AND 26P-FIRE 15 ARE CLOSED AND
PLUGGED.

26P-FIRE 14 AND 26P-FIRE 15 CLOSED AND PLUGGED

INIT/DATE _____

40. ASSURE THAT FILL PLUGS ARE SECURED IN TOP OF TANK.

FILL PLUGS INSTALLED IN TOP OF TANK

INIT/DATE _____

41. VERIFY 260-FIRE 1 CLOSED

260-FIRE 1 CLOSED

INIT/DATE _____

42. VERIFY 26P-FIRE 10 CLOSED

26P-FIRE 10 CLOSED

INIT/DATE _____

43. AT CELL 10, VISUALLY VERIFY POSITION INDICATOR ON 10P-FIRE 3
SHOWS VALVE CLOSED.

44. REMOVE CAP FROM 10P-FIRE 5 AND PLACE BUCKET UNDER DISCHARGE
OPENING OF VALVE.

45. SLOWLY OPEN 10P-FIRE 4.

46. CRACK OPEN 10P-FIRE 5 AND OBSERVE ANY FLOW OF LIQUID INTO
BUCKET. IF FLOW CONTINUES, IT CAN BE ASSUMED THAT
10P-FIRE 3 IS LEAKING THROUGH. NOTIFY PIC FOR RESOLUTION
BEFORE CONTINUING.

47. IF NO CONTINUOUS LEAKAGE IS OBSERVED FROM 10P-FIRE 5, CLOSE
THE VALVE AND RE-INSTALL CAP. VERIFY THAT 10P-FIRE 5 IS
CLOSED AND CAPPED, 10P-FIRE 4 IS OPEN, AND 10P-FIRE 3
INDICATES CLOSED.

VERIFIED AS ABOVE INIT/DATE _____

48. AT CELL 26, VISUALLY VERIFY POSITION INDICATOR ON 26P-FIRE 3
SHOWS VALVE CLOSED.

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

J-4a RESOLUTION/RETEST (W145)

Page: 17

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

49. REMOVE CAP FROM 26P-FIRE 5 AND PLACE BUCKET UNDER DISCHARGE OPENING OF VALVE.
50. SLOWLY OPEN 26P-FIRE 4.
51. CRACK OPEN 26P-FIRE 5 AND OBSERVE ANY FLOW OF LIQUID INTO BUCKET. IF FLOW CONTINUES, IT CAN BE ASSUMED THAT 26P-FIRE 3 IS LEAKING THROUGH. NOTIFY PIC FOR RESOLUTION BEFORE CONTINUING.
52. IF NO CONTINUOUS LEAKAGE IS OBSERVED FROM 26P-FIRE 5, CLOSE THE VALVE AND RE-INSTALL CAP. VERIFY THAT 26P-FIRE 5 IS CLOSED AND CAPPED, 26P-FIRE 4 IS OPEN, AND 26P-FIRE 3 INDICATES CLOSED.

VERIFIED AS ABOVE INIT/DATE _____

53. AT CELL 27, VISUALLY VERIFY POSITION INDICATOR ON 27P-FIRE 3 SHOWS VALVE CLOSED.
54. REMOVE CAP FROM 27P-FIRE 5 AND PLACE BUCKET UNDER DISCHARGE OPENING OF VALVE.
55. SLOWLY OPEN 27P-FIRE 4.
56. CRACK OPEN 27P-FIRE 5 AND OBSERVE ANY FLOW OF LIQUID INTO BUCKET. IF FLOW CONTINUES, IT CAN BE ASSUMED THAT 27P-FIRE 3 IS LEAKING THROUGH. NOTIFY PIC FOR RESOLUTION BEFORE CONTINUING.
57. IF NO CONTINUOUS LEAKAGE IS OBSERVED FROM 27P-FIRE 5, CLOSE THE VALVE AND RE-INSTALL CAP. VERIFY THAT 27P-FIRE 5 IS CLOSED AND CAPPED, 27P-FIRE 4 IS OPEN, AND 27P-FIRE 3 INDICATES CLOSED.

VERIFIED AS ABOVE INIT/DATE _____

58. AT CELL 28, VISUALLY VERIFY THAT POSITION INDICATOR FOR 28P-FIRE 3 INDICATED THAT THE VALVE IS CLOSED.
59. REMOVE CAP FROM 28P-FIRE 5 AND PLACE BUCKET UNDER DISCHARGE OPENING OF VALVE.
60. SLOWLY OPEN 28P-FIRE 4.
61. CRACK OPEN 28P-FIRE 5 AND OBSERVE ANY FLOW OF LIQUID INTO BUCKET. IF FLOW CONTINUES, IT CAN BE ASSUMED THAT 28P-FIRE 3 IS LEAKING THROUGH. NOTIFY PIC FOR RESOLUTION

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

=====J-4a RESOLUTION/RETEST (W145)=====

Page: 18

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
 Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

=====

BEFORE CONTINUING.

62. IF NO CONTINUOUS LEAKAGE IS OBSERVED FROM 28P-FIRE 5, CLOSE THE VALVE AND RE-INSTALL CAP. VERIFY THAT 28P-FIRE 5 IS CLOSED AND CAPPED, 28P-FIRE 4 IS OPEN, AND 28P-FIRE 3 INDICATES CLOSED.

VERIFIED AS ABOVE INIT/DATE _____

63. AT CELL 29, VISUALLY VERIFY POSITION INDICATOR ON 29P-FIRE 3 SHOWS VALVE CLOSED.
64. REMOVE CAP FROM 29P-FIRE 5 AND PLACE BUCKET UNDER DISCHARGE OPENING OF VALVE.
65. SLOWLY OPEN 29P-FIRE 4.
66. CRACK OPEN 29P-FIRE 5 AND OBSERVE ANY FLOW OF LIQUID INTO BUCKET. IF FLOW CONTINUES, IT CAN BE ASSUMED THAT 29P-FIRE 3 IS LEAKING THROUGH. NOTIFY PIC FOR RESOLUTION BEFORE CONTINUING.
67. IF NO CONTINUOUS LEAKAGE IS OBSERVED FROM 29P-FIRE 5, CLOSE THE VALVE AND RE-INSTALL CAP. VERIFY THAT 29P-FIRE 5 IS CLOSED AND CAPPED, 29P-FIRE 4 IS OPEN, AND 29P-FIRE 3 INDICATES CLOSED.

VERIFIED AS ABOVE INIT/DATE _____

68. AT CELL 30, VISUALLY VERIFY POSITION INDICATOR ON 30P-FIRE 3 SHOWS VALVE CLOSED.
69. REMOVE CAP FROM 30P-FIRE 5 AND PLACE BUCKET UNDER DISCHARGE OPENING OF VALVE.
70. SLOWLY OPEN 30P-FIRE 4.
71. CRACK OPEN 30P-FIRE 5 AND OBSERVE ANY FLOW OF LIQUID INTO BUCKET. IF FLOW CONTINUES, IT CAN BE ASSUMED THAT 30P-FIRE 3 IS LEAKING THROUGH. NOTIFY PIC FOR RESOLUTION BEFORE CONTINUING.
72. IF NO CONTINUOUS LEAKAGE IS OBSERVED FROM 30P-FIRE 5, CLOSE THE VALVE AND RE-INSTALL CAP. VERIFY THAT 30P-FIRE 5 IS CLOSED AND CAPPED, 30P-FIRE 4 IS OPEN, AND 30P-FIRE 3 INDICATES CLOSED.

VERIFIED AS ABOVE INIT/DATE _____

=====J-4a RESOLUTION/RETEST (W145)=====

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

Page: 19

J-4a RESOLUTION/RETEST (W145)
(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W *GENERIC WORK ITEM*
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

73. AT FOAM TANK, OPEN 260-FIRE 1.

260 FIRE 1 OPEN INIT/DATE _____

74. SLOWLY OPEN 26P-FIRE 10.

26P-FIRE 10 OPEN INIT/DATE _____

75. VERIFY THAT 26P-FIRE 13 INDICATOR SHOWS VALVE TO BE CLOSED
VERIFY THAT DISPATCH OFFICE INDICATES 26P-FIRE 13 TO BE
CLOSED.

26P-FIRE 13 CLOSED INIT/DATE _____

76. SLOWLY REMOVE PLUGS FROM SOLENOID VALVE AT 26P-FIRE 13. IF
AIR DISCHARGE IS NOTED DURING PLUG REMOVAL, IMMEDIATELY
TIGHTEN PLUGS BACK INTO SOLENOID VALVE. NOTIFY PIC BEFORE
CONTINUING.

PLUGS REMOVED FROM 26P-FIRE 13 SOLENOID VALVE

INIT/DATE _____

77. POSITION BARREL/HOSE/PIPING ASSEMBLY UNDER 4" SUPPLY
STRAINER AND ATTACH TO STRAINER CLEAN OUT VALVE.
B-PLANT TO PROVIDE BARREL.

78. OPEN STRAINER VALVE, 26P-FIRE 8 AND FLOW INTO BARREL UNTIL
BARREL IS APPROXIMATELY ONE HALF FULL.

79. CLOSE 26P-FIRE 8.

80. VISUALLY INSPECT DISCHARGED MATERIAL IN BARREL TO DETERMINE
IF FURTHER SYSTEM FLUSHING SHOULD BE DONE.

COMMENTS/FINDINGS/RECOMMENDATIONS _____

SIGN/DATE _____

81. HFD PERSONNEL RETURN ALL ALARM SYSTEMS TO NORMAL STATUS AND
VERIFY OPERABILITY AND COMPLETE SYSTEM RESTORATION.

ALL SYSTEMS RETURNED TO NORMAL STATUS

J-4a RESOLUTION/RETEST (W145)

*** INFORMATION ONLY ***

*** INFORMATION ONLY ***

=====J-4a RESOLUTION/RETEST (W145)=====

Page: 20

(Cont.)

11:46:26 29 DEC 1994

1. Document Number 2G-94-00459/W GENERIC WORK ITEM
Work Item Title FOAM SYSTEM B PLANT FLUSH/RECHARGE

=====

INIT/DATE _____

82. VISUALLY CHECK FOR EVIDENCE OF LEAKAGE AT ALL DISTURBED
PIPING CONNECTIONS. NO LEAKAGE IS PERMITTED. ANY LEAKAGE
FOUND MUST BE CORRECTED PRIOR TO WORK PKG. COMPLETION.
NOTIFY PIC IF ANY LEAKAGE IS FOUND.

SYSTEM LEFT IN A NO-LEAKAGE CONDITION

INIT/DATE _____

82. CLEAN UP WORK LOCATIONS

83. NOTIFY FACILITY REP/SHIFT MGR. THAT WORK IS COMPLETE.
- =====

=====J-4a RESOLUTION/RETEST (W145)=====

*** INFORMATION ONLY ***