

Installation Procedure Title:

'A' & 'B' OTSG STABILIZATION AND PLUGGING

LIST OF EFFECTIVE PAGES

<u>PAGE</u>	<u>REV.</u>	<u>EFFECTIVE DATE</u>	<u>EXHIBIT</u>	<u>PAGE</u>	<u>REV.</u>	<u>EFFECTIVE DATE</u>
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Feb 8, 1983

*Secondary system
1) OTSG shell
2) N2
3) Hydroph. foam
4) Seal vent*

	SIGNATURE	TITLE/DIVISION/DEPARTMENT	DATE
Originator		Job Planner	
Concurrence		Technical Support	
Reviewed By		Responsible Technical Reviewer	
		Plant Review Group	
		Rad Con	
	8506140178 850125 PDR FOIA DETJEN84-897 PDR		
Approved By		P&S Manager	
		O&M Director or N/A	
		Mod/Ops QC Manager or N/A	

FORM A200-ADM-1218.1-1

1.0 INTRODUCTION AND SCOPE

- 1.1 This Installation Procedure provides direction for the final tube end prep, stabilizer insertion and welding of stabilizer welding caps.

2.0 REFERENCES

- 2.1 DRF later*, B&W FCA 3922, Rev. 0
- 2.2 DRF later*, B&W FCA 3921, Rev. 0
- 2.3 AP 1020, Cleanliness Requirements
- 2.4 AP 1030, Control of Access to Primary System Opening
- 2.5 AP 1042, Control of Welding
- 2.6 Radiation Protection Plan
- 2.7 B&W Operating Specification 64-100 1546-06
- 2.8 GPUN Specification SP-1101-12-030, Rev. 8
- 2.9 Weld Procedure - New Stabilizers
- 2.10 Weld Procedure - Old Stabilizers
- 2.11 Weld Procedure - Tapered Stabilizer Cap
- 2.12 Weld Procedure - Welded Plugs
- 2.13 A25K-51512-IP1, Rev. 1

*Prior to issuing "IP"

Groups
Reqs
 B&W
 Engineering
 mtc
 Alara
 Callahan

3.0 RESPONSIBILITIES

- 3.1 M&C Department is responsible for all aspects of this work.
- 3.2 Plant Engineering will provide assistance as required.

4.0 PREREQUISITES

- 4.1 OTSG Primary side drained and manway removed.
- deleted* → 4.2 Tubes to be stabilized have been identified.
- 4.3 Specific training on stabilizer assembly and insertion must be accomplished prior to inserting stabilizers into tubes.
- 4.4 ALARA and RWP requirement have been satisfied.
- 4.5 Safety Department "Confined Space Entry Requirements" are met.
- 4.6 Cold leg plugs installed, inflated and maintained in accordance with current applicable "STP" or J-leg covers installed. Drain plug installed.
- 4.7 Tooling to be cleaned and verified to Class C cleanliness as specified in AP 1020.
- 4.8 Video/Communications equipment installed and operable.
- 4.9 The Reactor must be in cold shutdown and depressurized.

- 4.10 All tubes slated to receive stabilizers have been identified and those identifications have been verified by Quality Control.
- 4.11 All stabilizer installation tooling shall have specific serial numbers assigned to each tool prior to use. *→ crimpers and holders*
- 4.12 Installation Tooling Qualification

NOTE: These tests are to be performed prior to starting the installation of stabilizers and at the completion of: *buy whom?*

The stabilizer installation; or when the tooling is changed; or end of shift. Do not adjust tooling for post installation tests. *What you do if ooc.?*

4.12.1 Holder Qualification

- (1) Clamp a special vice grip holder onto the modified bolt of crimp tool qualification device.
- (2) Apply a torque to the bolt head using a torque wrench until the modified bolt held with the special vice grip holder slips, or until a maximum of 20 ft/lbs is reached.
- (3) If 20 ft/lbs is reached without slippage, adjust the special vice grip holders to ensure slippage occurs at less than 20 ft/lbs, but greater than 10 ft/lbs.
- (4) Upon satisfactory testing, securely tighten the adjustment screw lock nut.
- (5) Repeat Steps (1) through (4) for additional special vice grip holders, as required.

4.12.2 Crimper Qualification

- (1) Place tested vice grip holder in the middle of the stabilizer part of the crimp tool qualification device.
- (2) Insert the Modified Bolt into the other end.
- (3) Crimp the joint with a special vice grip crimping tool previously adjusted.
- (4) Using a torque wrench on the bolt specified in Step (2), measure the torque required to cause the joint to rotate. This must be greater than 8 ft/lbs.
- (5) If crimp slips at less than 8 ft/lbs, adjust the vice grip crimping tool accordingly and repeat Step (4).
- (6) Upon satisfactory crimp test, lock (weld) the crimping tool adjustment screw and lock nut.

Retest/record
discussed

5.0 SPECIAL/SAFETY PRECAUTIONS

5.1 Any time the primary pressure boundary is breached, the requirements of AP 1030, Control of Access to Primary Openings, must be observed.

5.2 Any item entering the OTSG, including clothing, must meet the cleanliness requirements of AP 1020. All materials left permanently in the OTSG must meet Class B requirements. Tools or other transient materials must meet Class C requirements as a minimum.

How do meet this with what is in the

ASME

ASME

- 5.3 Exercise extreme care to prevent dropping tools or parts inside the OTSG or piping since such an accident will result in lengthy retrieval operations. Use of nylon lanyards or equivalent means of positive capture is required.

are the pieces that small

- 5.4 Internal surfaces of the OTSG must be protected from foreign materials, debris, dropped tools, etc. Clean Herculite or B&W supplied J-leg covers will be used to protect the lower head cladding and primary outlet nozzles.

delist

- 5.5 Observe all applicable limits and precautions of the Radiation Protection Plan and RWP.

6.0 INSTALLATION REQUIREMENTS

- 6.1 ~~WAP~~ for kinetically expanded tubes to be stabilized.

NOTE: See Attachment 7.4 for list of tubes to be end prepped. Cleaning to be documented on WA-ADL

*Scotch Brite
padding
and acetone*

_____ weld end preparation record sheet, found in Job Order A25K-V1512.

- 6.1.1 Tube cleaning shall consist as a minimum 360° I.D. to a depth of 1/4" and the entire O.D. of the tube to tube sheet seal weld area.

NOTE: Clean tube I.D. and seal weld using B&W supplied Scotch-Brite Pads or approved equivalent.

- 6.1.2 Cleaning shall consist of the removal of all grease, paint, or other foreign matters present. Oil and grease shall be removed by using acetone or approved equivalent.

*Note
three crumper
used*

6.1.3 During fit-up, verify that burrs do not interfere with the two base materials (Plug/tube and plug/tubesheet) thus preventing contact with each other (360°).

NOTE: Rubber or resin bonded grinding wheels shall be aluminum oxide or silicon carbide grinding wheels which are unused.

6.1.4 Perform stabilizer assembly and installation in accordance with Attachment 7.3 in those tubes listed on Attachment 7.____.

6.1.5 Perform stabilizer assembly welding in accordance with Welding Procedure _____, Ref. 2.9.

6.2 ~~For~~ For stabilization of non-kinetically expanded tubes.

6.2.1 The tubes involved in this portion of this procedure are as follows:

B-77-4	B-77-24
B-77-5	A-1-9
B-77-6	A-11-65
B-77-7	A-114-106
B-77-8	A-140-64
B-77-9	

← was this tube kinetically expanded how was.

6.2.2 Verify that all above listed tubes have been endmilled to the requirements of ~~Installation Procedure~~ *Ref 2.8*
~~A25K-51512-IP1, Ref. 2.13.~~

6.2.3 Tube cleaning shall consist as a minimum 360° I.D. to a depth of 1/4" and the entire O.D. of the tube to tube sheet seal weld area.

NOTE: Clean tube I.D. and seal weld using B&W supplied Scotch-Brite Pads or approved equivalent.

6.2.4 Cleaning shall consist of the removal of all grease, paint, or other foreign matters present. Oil and grease shall be removed by using acetone or approved equivalent.

6.2.5 During Fit-up, verify that burrs do not interfere with the two base materials (Plug /tube and plug/tubesheet) thus preventing contact with each other (360°).

NOTE: Rubber or resin bonded grinding wheels shall be aluminum oxide or silicon carbide grinding wheels which are unused.

NOTE: Prior to performing stabilizer insertion, weld caps shall have been modified in accordance with Ref. 2.2 (B&W FCA 3921, Rev. 0).

6.2.6 Perform stabilizer assembly and installation in accordance with Attachment 7.3 in those tubes listed in Step 6.2.1.

6.2.7 Perform stabilizer assembly welding in accordance with Welding Procedure _____, Ref. 2.10.

6.3 For stabilization of Row/Tube No. A-23-93

6.3.1 Locate and identify (with hairpin marker) tube A-23-93. Quality Control verify.

here not in 6.1
these tubes will be machined must go through QC
why

definition of unused

QA/QC change

6.3.2 Remove hairpin marker and insert tapered stabilizer cap. Scribe a mark $1/4"$ up from the tubesheet on the cap. Remove cap and replace with hairpin marker. Cut off excess above the $1/4"$ scribe mark.

6.3.3 Once excess has been removed from the cap, reclean cap with acetone or approved equivalent. (PT?)

6.3.4 Tube hole cleaning shall consist as a minimum 360° I.D. to a depth of $1/4"$. *verify*

NOTE: Clean tube hold I.D. using B&W supplied Scotch-Brite Pads or equivalent.

6.3.5 Cleaning shall consist of the removal of all grease, paint, or other foreign matters present. Oil and grease shall be removed by using acetone or approved equivalent.

6.3.6 Perform stabilizer assembly and installation in accordance with Attachment 7.3 in tube A-23-93.

6.3.7 Drive tapered stabilizer cap with one blow from a machinist's hammer (approximately 1 lb.) to insure a good mechanical seal.

6.3.8 Perform stabilizer assembly welding in accordance with Welding Procedure _____, Ref. 2.11.

6.4 ~~For~~ For plugging tubes previously explosively plugged in upper tubesheet.

6.4.1 The tubes involved in this portion of this procedure are as follows:

A-1-16	A-75-48	A-22-93
A-75-126	A-70-80	A-128-79
A-73-33	B-81-22	A-74-125

- 6.4.2 Verify that all above listed tubes have been endmilled to the requirements of Installation Procedure

~~A25K-51512-IP 1, Ref. 2.13.~~ *Ref 2.8*

- 6.4.3 Tube cleaning shall consist as a minimum 360° I.D. to a depth of 1/4" and the entire O.D. of the tube to tube sheet seal weld area.

NOTE: Clean tube I.D. and seal weld using B&W supplied Scotch-Brite Pads or approved equivalent.

- 6.4.4 Cleaning shall consist of the removal of all grease, paint, or other foreign matters present. Oil and grease shall be removed by using acetone or approved equivalent.

- 6.4.5 During fit-up, verify that burrs do not interfere with the two base materials (Plug/tube and plug/tubesheet) thus preventing contact with each other (360°).

NOTE: Rubber or resin bonded grinding wheels shall be aluminum oxide or silicon carbide grinding wheels which are unused.

NOTE: Prior to performing plug insertion, weld plugs will have been modified in accordance with Ref. 2.2, (B&W FCA 3921, Rev. 0).

- 6.4.6 Perform plug welding in accordance with Welding Procedure _____, Ref. 2.12.

7.0 ATTACHMENTS

- 7.1 List of Tubes to be Stabilized
- 7.2 Installation Tool Verification Data Sheet - SAMPLE
- 7.3 Stabilizer Assembly/Insertion Procedure and Checklist - SAMPLE
- 7.4 List of Tubes to be ~~End-Prepped~~ *Scotch button bright*

*Revision 8 will change
the yump package*

ATT.

7.1

1 OF 10

ATTACHMENT 1

SP-1101-12-030-R7

PART I. OTSG A

51/24/83
~~12/8/82~~ Verified ~~21/21/83~~
 Page 1 of 7 (A1)
 Rev. 2

LIST OF TUBES TO BE STABILIZED AND PLUGGEDEC INDICATIONS FROM US + 04* THRU 15TH TSP

Row	Tube	Row	Tube	Row	Tube
1. 1	9	25. 11	68	49. 24	95
2. 1	10	26. 13	3	50. 25	4
3. 2	10	27. 13	7	51. 25	95
4. 2	12	28. 13	60	52. 25	96
5. 2	23	29. 13	72	53. 25	97
6. 3	30	30. 13	73	54. 26	97
7. 4	2	31. 13	74	55. 27	98
8. 4	3	32. 14	2	56. 28	100
9. 4	5	33. 14	72	57. 28	101
10. 4	36	34. 14	74	58. 29	93
11. 4	40	35. 18	82	59. 29	98
12. 5	4	36. 18	85	60. 29	102
13. 6	49	37. 19	86	61. 29	103
14. 6	50	38. 20	79	62. 29	104
15. 7	43	39. 20	80	63. 30	19
16. 7	54	40. 21	1	64. 30	96
17. 8	3	41. 21	89	65. 30	103
18. 8	57	42. 22	86	66. 30	104
19. 9	60	43. 23	1	67. 31	68
20. 9	61	44. 23	88	68. 31	89
21. 10	23	45. 23	89	69. 31	104
22. 10	27	46. 24	14	70. 32	105
23. 10	64	47. 24	91	71. 32	106
24. 10	65	48. 24	93	72. 33	106

030

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* 8x1 EC data at US + 05 less than 270°.

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WA-ADL # 14-1
 Page / Sheet 18 OF 29
 WA # A25K-51512

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OTSG A

LIST OF TUBES TO BE STABILIZED AND PLUGGED

EC INDICATIONS FROM US + 04* THRU 15TH TSP

SP-1101-12-030-R7 ATT. I

12/0/02 Verified ^{01/24/83} ~~12/0/02~~
Page 2 of 7 (A-2)
Rev. 2

Row	Tube	Row	Tube	Row	Tube
73.	33	107	98.	41	113
74.	34	100	99.	41	114
75.	34	104	100.	42	113
76.	34	105	101.	42	115
77.	34	106	102.	42	116
78.	35	87	103.	43	114
79.	36	104	104.	43	115
80.	36	108	105.	43	117
81.	36	112	106.	44	116
82.	37	111	107.	45	115
83.	37	112	108.	45	116
84.	37	114	109.	45	120
85.	38	110	110.	46	115
86.	38	111	111.	46	116
87.	38	113	112.	46	118
88.	38	115	113.	47	106
89.	39	111	114.	47	119
90.	39	112	115.	47	120
91.	39	116	116.	47	122
92.	40	13	117.	48	2
93.	40	112	118.	48	77
94.	40	114	119.	49	121
95.	40	115	120.	49	122
96.	40	116	121.	49	123
97.	41	1	122.	49	124
			123.	50	121
			124.	50	122
			125.	51	113
			126.	51	119
			127.	51	120
			128.	51	123
			129.	52	2
			130.	53	125
			131.	53	126
			132.	54	123
			133.	54	124
			134.	54	125
			135.	54	127
			136.	55	32
			137.	55	121
			138.	55	126
			139.	56	126
			140.	56	127
			141.	57	127
			142.	58	126
			143.	58	128
			144.	59	32
			145.	59	123
			146.	60	17
			147.	60	127

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OTSG A

LIST OF TUBES TO BE STABILIZED AND PLUGGED

EC INDICATIONS FROM US + 04* THRU 15TH TSP

Sp-1101-12-030-R7 AH.1

~~12/8/82~~ verified ~~01/24/83~~

Page 3 of 7 (A-3) 01/24/83
Rev. 2

Row	Tube	Row	Tube	Row	Tube
148.	62	126	173.	71	127
149.	62	127	174.	73	124
150.	62	128	175.	73	125
151.	64	125	176.	73	127
152.	65	128	177.	74	118
153.	65	129	178.	74	122
154.	66	10	179.	75	120
155.	66	124	180.	76	117
156.	66	128	181.	76	120
157.	66	130	182.	78	21
158.	67	124	183.	78	120
159.	67	125	184.	79	3
160.	67	127	185.	79	125
161.	67	128	186.	79	127
162.	68	126	187.	79	128
163.	68	130	188.	79	129
164.	68	131	189.	80	125
165.	69	125	190.	80	129
166.	69	126	191.	81	125
167.	69	127	192.	81	126
168.	69	128	193.	81	128
169.	69	129	194.	82	114
170.	70	125	195.	82	123
171.	70	127	196.	82	129
172.	70	130	197.	82	130
198.	83	129			
199.	84	125			
200.	84	128			
201.	84	129			
202.	85	126			
203.	85	128			
204.	85	130			
205.	86	124			
206.	86	129			
207.	87	125			
208.	87	126			
209.	87	130			
210.	88	126			
211.	89	126			
212.	90	124			
213.	90	125			
214.	91	70			
215.	91	121			
216.	91	123			
217.	91	124			
218.	91	125			
219.	92	93			
220.	92	94			
221.	92	126			
222.	92	127			

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* 8x1 EC data at US + 05 less than 270°.

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LIST OF TUBES TO BE STABILIZED AND PLUGGED

EC INDICATIONS FROM US + 04* THRU 15TH TSP

~~12/8/82~~ Verified ~~01/01/83~~
Page 4 of 7 (A-4) 01/24/83
Rev. 2

	<u>Row</u>	<u>Tube</u>		<u>Row</u>	<u>Tube</u>		<u>Row</u>	<u>Tube</u>
223.	92	128	249.	109	110	275.	124	95
224.	92	129	250.	109	116	276.	125	91
225.	95	18	251.	110	1	277.	125	94
226.	95	125	252.	112	99	278.	126	81
227.	96	80	253.	112	107	279.	126	88
228.	96	124	254.	113	3	280.	127	86
229.	96	126	255.	113	106	281.	128	69
230.	97	78	256.	113	110	282.	128	89
231.	97	123	257.	114	106	283.	128	85
232.	97	125	258.	114	109	284.	128	89
233.	98	60	259.	116	24	285.	128	91
234.	98	123	260.	116	49	286.	129	2
235.	98	127	261.	116	107	287.	129	84
236.	99	123	262.	116	110	288.	129	85
237.	100	123	263.	117	99	289.	130	85
238.	100	124	264.	119	100	290.	130	86
239.	100	125	265.	119	105	291.	130	90
240.	101	121	266.	120	99	292.	131	83
241.	101	123	267.	121	95	293.	131	87
242.	101	124	268.	121	97	294.	131	88
243.	102	91	269.	122	98	295.	132	78
244.	102	122	270.	122	99	296.	132	80
245.	103	122	271.	123	94	297.	132	83
246.	105	122	272.	123	98	298.	132	84
247.	106	117	273.	124	90	299.	133	82
248.	108	113	274.	124	92	300.	133	86

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OTSG A

LIST OF TUBES TO BE STABILIZED AND PLUGGED

EC INDICATIONS FROM US + 04* THRU 15TH TSP

SP-1101-12-030-R7 Att. 1
~~12/8/02 Verified~~
Page 5 of 7 (A-1) 01/24/83
Rev. 2

Row	Tube	Row	Tube	Row	Tube
301.	134 69	326.	138 71	351.	144 55
302.	134 79	327.	138 72	352.	144 57
303.	134 80	328.	138 73	353.	145 44
304.	134 84	329.	139 3	354.	145 45
305.	135 73	330.	139 72	355.	146 5
306.	135 75	331.	139 74	356.	146 24
307.	135 76	332.	140 2	357.	146 46
308.	135 77	333.	140 63	358.	147 21
309.	135 79	334.	141 52	359.	147 22
310.	135 80	335.	141 61	360.	148 5
311.	135 82	336.	141 63	361.	148 28
312.	136 68	337.	141 67	362.	148 38
313.	136 70	338.	141 68	363.	148 40
314.	136 72	339.	142 3	364.	149 4
315.	136 74	340.	142 56	365.	150 7
316.	136 75	341.	142 59	366.	150 12
317.	136 78	342.	142 60	367.	150 14
318.	136 79	343.	142 62	368.	150 26
319.	137 74	344.	142 64	369.	150 27
320.	137 75	345.	142 65	370.	151 6
321.	137 77	346.	143 45	371.	151 7
322.	138 5	347.	143 60	372.	151 13
323.	138 57	348.	143 62	373.	37 113
324.	138 67	349.	144 9	374.	49 2
325.	138 69	350.	144 46	375.	143 59

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* Exl EC data at US + 05 less than 270°.

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OTSG A

LIST OF TUBES TO BE STABILIZED AND PLUGGED

EC INDICATIONS FROM US + 04* THRU 15TH TSP

SP-1101-12-030-R7 Att. 1

12/0/02 Verified ~~12/0/02~~

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Rev. 2

	<u>Row</u>	<u>Tube</u>
	376.	42 (See Note 1)
	377.	73 (See Note 1)
	378.	99 (See Note 2)
	379.	143 (See Note 2)
	380.	35 (See Note 2)
	381.	26 (See Note 3)
	382.	90 (See Note 4)
not	383	116 (See Note 5)
	384.	79 (See Note 6)
not	385	23 (See Note 7)

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* 8x1 EC data at US + 05 less than 270°.

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ATT.
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OTSG A

12/8/82
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Rev. 7 (A-7)

LIST OF TUBES TO BE STABILIZED AND PLUGGED

EC INDICATIONS FROM US + 04* THRU 15TH TSP

NOTES

- Note 1: 0.540 and 8x1 EC data is not in agreement for stabilization criteria.
- Note 2: 8x1 EC data has an additional indication that requires these tubes to be stabilized.
- Note 3: Defect on 0.540 unable to be confirmed on 8x1.
- Note 4: Multiple defects in 16th span of < 40% T.W., 1 coil & multiple 1 vert.
- Note 5: 35% T.W. ID indication in 16th span but no 8x1 data, considered as > 3 coils.
- Note 6: < 20% T.W. ID indication in 16th span, 1 coil & < 1 vert on 8x1 data.
- Note 7: 95% T.W. indication at 15 TSP+13", remove tapered plug, REPLUG & STABILIZE

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Deletions = 2

Grand Total = 385 - 2 = 383

like 1/3/83

* 8x1 EC data at US + 05 is less than 270°.

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WA #

A25K-51512

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SP1101-030-R-7
Verified ~~02/06/83~~
~~02/17/83~~
01/24/83

P.A-8

ATTACHMENT I

PART II - OTSG B

LIST OF TUBES TO BE STABILIZED AND PLUGGED

EC INDICATIONS FROM US + 04* THRU 15TH TSP

030

Row	Tube	Row	Tube	Row	Tube	Row	Tube
1. 1	6	23. 46	73	45. 91	4	67. 122	56
2. 2	12	24. 46	114	46. 92	3	68. 125	54
3. 2	13	25. 49	12	47. 95	4	69. 126	2
4. 2.	14	26. 50	8	48. 96	2	70. 133	27
5. 7	20	27. 51	8	49. 99	2	71. 134	51
6. 9	46	28. 52	9	50. 99	3	72. 139	40
7. 10	48	29. 54	16	51. 100	4	73. 140	4
8. 23	7	30. 57	121	52. 100	8	74. 140	22
9. 25	4	31. 58	80	53. 101	1	75. 141	18
10. 25	11	32. 60	69	54. 101	2	76. 147	36
11. 26	5	33. 61	101	55. 101	46	77. 149	27
12. 28	68	34. 70	80	56. 103	8	78. 150	13
13. 29	42	35. 71	34	57. 105	5	79. 150	26
14. 29	83	36. 77	38	58. 105	74	80. 14	47
15. 31	22	37. 78	1	59. 107	42	81. 84	68.1
16. 33	3	38. 83	65	60. 108	6	82. 80	5
17. 35	63	39. 4	35	61. 108	12	83. 5	4
18. 37	66	40. 85	5	62. 109	6		
19. 39	19	41. 86	6	63. 110	7		
20. 40	73	42. 87	9	64. 111	5		
21. 43	12	43. 89	4	65. 118	30		
22. 43	115	44. 89	62	66. 120	1		

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G. KULL

* There are no EC indications at US+05 greater than 270°.

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Page / Sheet 25 OF 29
WA # A25K-51512

ATT.
7.1
9 OF 10

SP-1101-12-030-R7
~~01/24/83~~ A-11
01/24/83

ATTACHMENT 1

PART VI

LIST OF TUBES TO BE STABILIZED AND PLUGGED

(Category d)

TUBES LOCATED IN LANE OR LANE WEDGE AREA

<u>OTSG</u>	<u>ROW-TUBE</u>	<u>DEFECT LOCATION</u>
A	75 - 1	Non-Crossflow Area
A	75 - 2	" " "
A	77 - 36	" " "
A	77 - 46	" " "
A	77 - 52	" " "
A	71 - 3	" " "
A	81 - 3	" " "
A	82 - 1 <i>col.</i>	" " "
A	85 - 1	" " "
A	86 - 1	" " "

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ATT.
7.1

10 OF 10

SP-1101-12-030-R7

~~01/07/83~~ A-12
Verified 01/24/83

ATTACHMENT 1

PART VII

LIST OF TUBES TO BE STABILIZED AND PLUGGED

(Category e)

	<u>Row</u>	<u>Tube</u>	<u>Defect Location</u>
1.	A3	32	14 thru 15-06
2.	A27	100	14-01 thru 15-12
3.	A136	3	14 TSP thru 15 TSP -07
4.	A31	106	10 TSP -0 (Stabilize to the 9th TSP)
5.	A145	17	14 TSP -0
6.	B119	106	15-17 thru 15-24
7.	B54	121	9 TSP +10 thru 10 TSP -20 (Stabilize to the 9th TSP)
8.	A63	1	4 TSP THRU 11 TSP Multi Indications (Stabilize to the 9th TSP) c.c.k.

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WA-ADL # 14-1
Page / Sheet 29 OF 29
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ATTACHMENT
7.2

Page _____ of _____

NOTE: Qualification of tooling shall be performed as specified in Step 4.12 of Installation Procedure A25K-51512-IP6

[illegible]

OTSG _____ TUBE _____ DATE _____

DATE _____

Paper work

1. Verify that tube end weld preparation has been completed.
2. Jumper to obtain correct stabilizer packet from tentman. Proceed to tube to be stabilized.
3. Partially withdraw tube marker from tube end until tube I.D. marker is visible. Verify marker I.D. number is the same as the I.D. number on the stabilizer packet.
NOTE: Do not remove tube marker completely from hole.
4. Remove stabilizer nose section from packet and attach vise grips to nose.
5. Partially insert nose with vise grips attached into tube and withdraw tube I.D. marker.
6. Insert nose into tube.
NOTE: If identity of tube is lost, inform Task Supervisor for directions.
7. Assemble stabilizer sections as follows:
 - 7.1 Thread next segment into installed segment until hand tight.
 - 7.2 Attach vise grip pliers to the upper segment and tighten firmly as shown in Training.
 - 7.3 Using special crimping tool, lock threaded joint by crimping.
 - 7.4 Repeat above steps until all segments are assembled including weld cap.
NOTE: Special vise grip holder is required for installation of larger diameter stabilizer caps.
8. Verify weld cap I.D. number is the same as tube I.D. number. Report any discrepancy to the Task Supervisor.
9. Stabilizer assembled and installed per this procedure.

ATTACHMENT
7.3

OTSG COORDINATOR

QA signature?
QA verifier

GENERAL PUBLIC UTILITIES
OTSG REPAIRS

DATE 2/8/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
1.	Cut and cap thio line . Revised Installation Spec - Mech & Elec . Resolve MNCR - Nuts & Bolts	S. Levin J. Mann G. Kull	Week of 2/14 TBD
2.	Round Robin Samples-NWT Lab . Spent Fuel . BWSI . Decay Heat - Monthly Samples . Ship Next Monthly Samples	J. Colitz	End of Month 2/28
3.	Restoration Secondary Side A. Dehumidification System - Out-Waiting Decon B. Temp. Chem. System - Chemical Pumps, etc. C. Temp. & Humidity Probes Calibration Check		
4.	Ops OTSG Status 450 A OTSG Level 194" 350 B OTSG Level Recirc. both OTSG in wet layup today . Full Wet Layup . Receive Backing Plate for "A" Upper Manway		2/7 4/1
5.	Kinetic Expansion B&W Post Expansion Clean-up Draft - Eng Spec and Equipment Final Spec Received Mtg-Chem & Sampling Draft Procedure On Site Mt. Vernon Test Draft Procedure . Spare Regulators for Cold Leg Plugs . Felt Plug Blowing Device . Final Freepath - Blow Plugs from Top	B&W FINAL	1/26 2/15 TBD 2/1 2/10 2/1 2/7
6.	Immunol . OTSG Flush System for Immunol Application Revision to Spec Issued Part . STP for Spraying Dome-Waiting Approval	TF	1/28

-2-
OTSG REPAIRS

DATE 2/8/83

ITEM	DESCRIPTION	RESPONSIBILITY	DATE REQUIRED
7.	Tube Plug Stabilization		
	. Stabilizer Material Deliver		
	B OTSG		
	A OTSG		
	Spec for Prelim. Plugging-Final		
	Rev 6 Issued	C. K. Lee	
	Rev 7 Issued		
	Equipment and Procedures to Pull Stabilizers		2/2
	DRF Stabilization		Week of 2/4
	. Installation Procedure		TBD
	. Tooling to Remove Stab.	B&W	2/4
	. Administrative Procedure Review - IP		TBD
	. Final Issue FCA-Reg and old Stabilizers		

15 tube support plate

8. Miscellaneous Items to Resolve
 . Pull Tapered Plug 23-93 for Stabilization

- Tooling
 End Mill
 New Plug

9. Waiting Documentation
MNCR

Responsibility

215-82 Plug Exploded at Wrong Area of Tube
 345-82 2 Tubes Plugged Incorrectly
 354-82 Documentation for Immunol-1st Batch
 420-82 Damaged Tube Ends
 426-82 Wire Brush B6-1
 009-83 Immunol at Cold Legs

B&W
 Eng

10. Tube Endmilling
 B&W Proposal
 Review Process and Establish Procedure
 Tooling
 Model for Trn.
 Photographics Surveillance

working the A
244 tubes 50%
6 to 8 tubes / minute
start B this morning
 Issued
 TBD
 2/3
 2/3

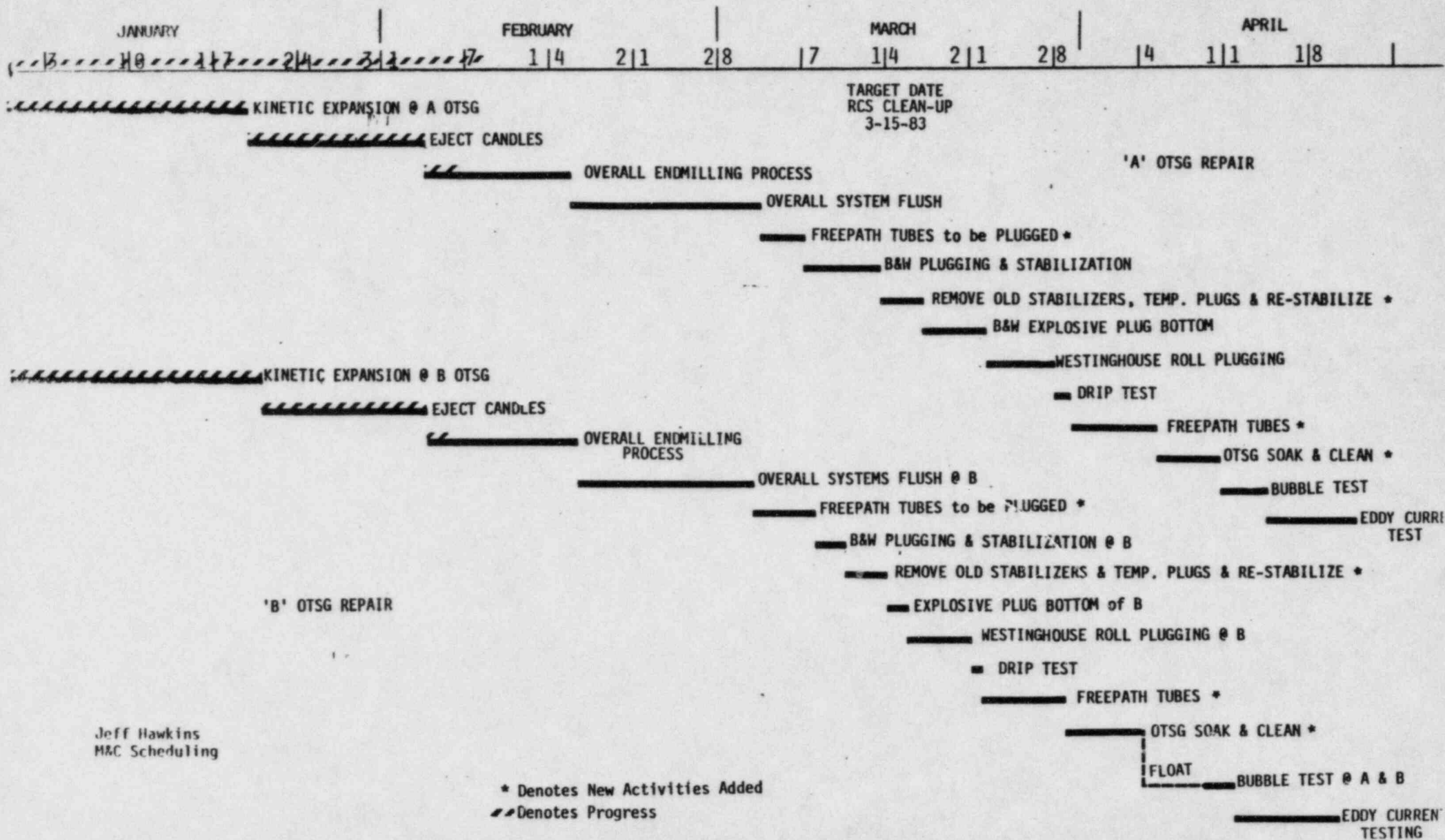
11. Anticipated Jumps
Date Description

Responsibility

2/8 A - Upper -
 A - Lower -

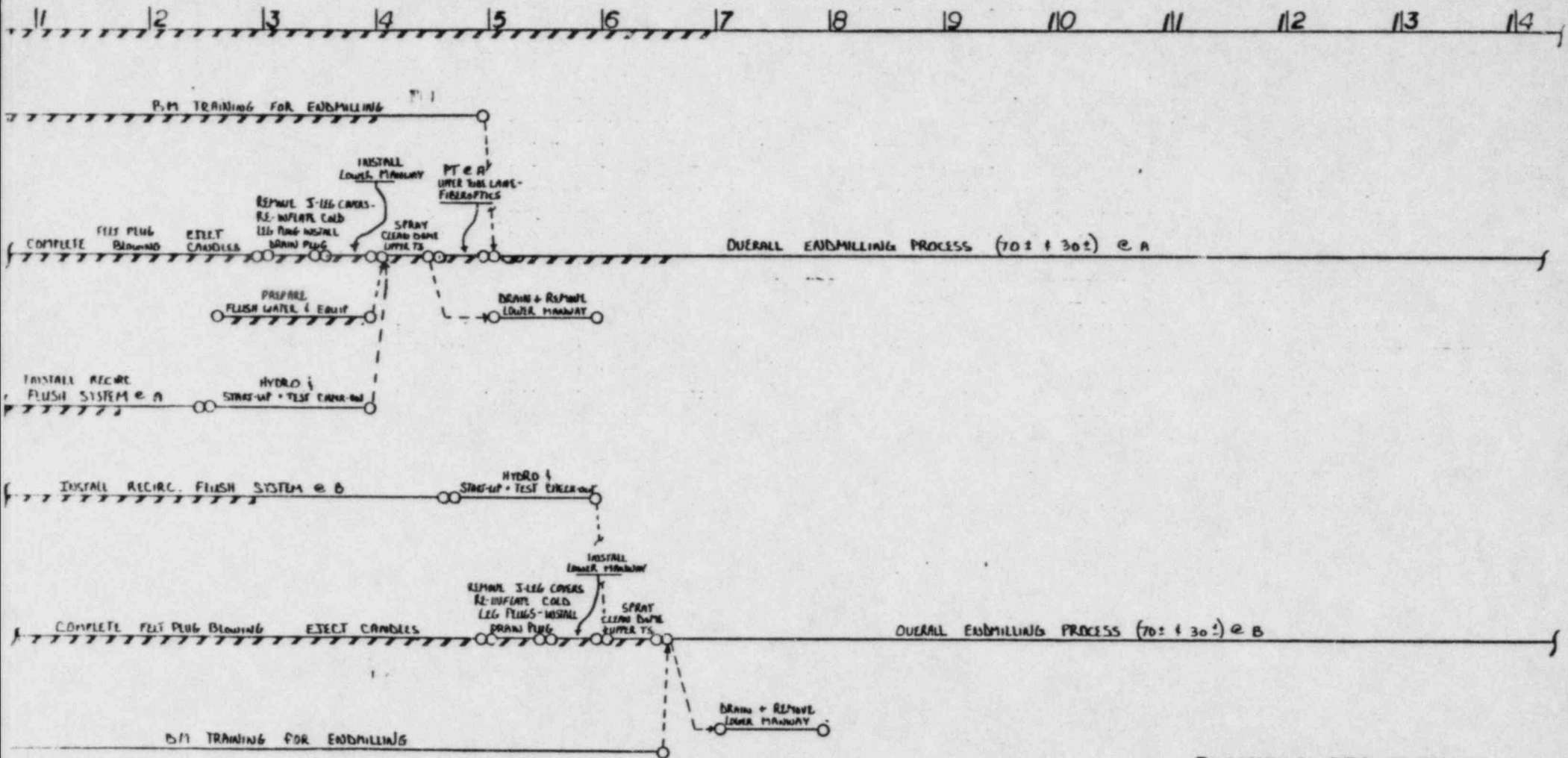
 2/8 B - Upper -
 B - Lower -

Levin/Catalytic



Jeff Hawkins
M&C Scheduling

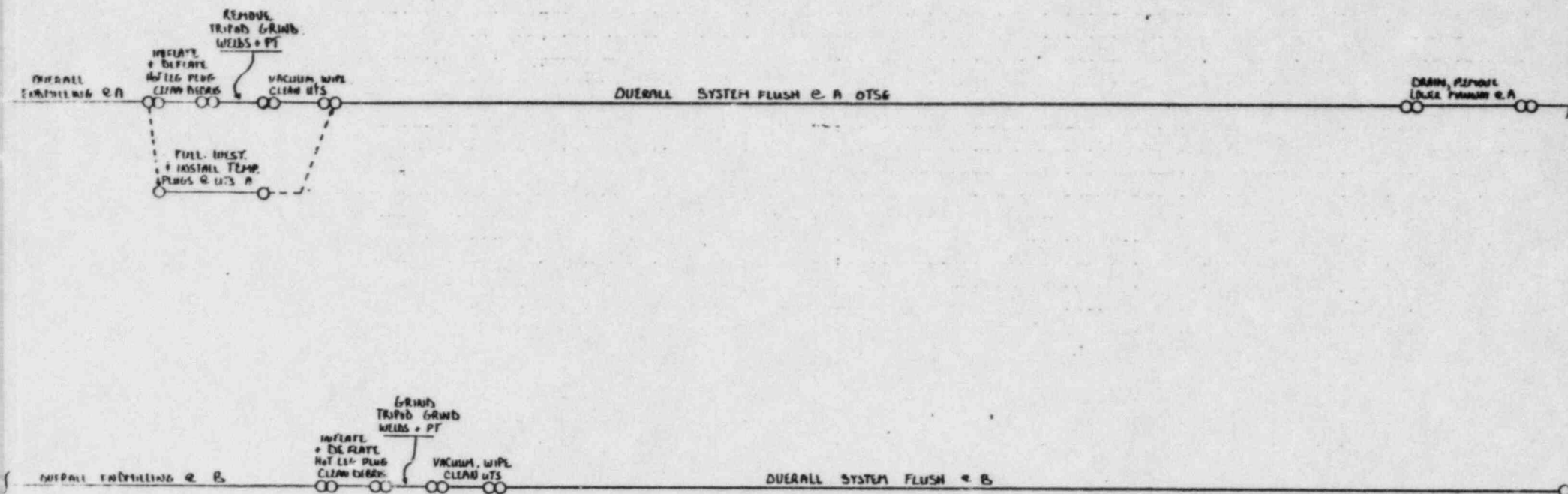
FEBRUARY



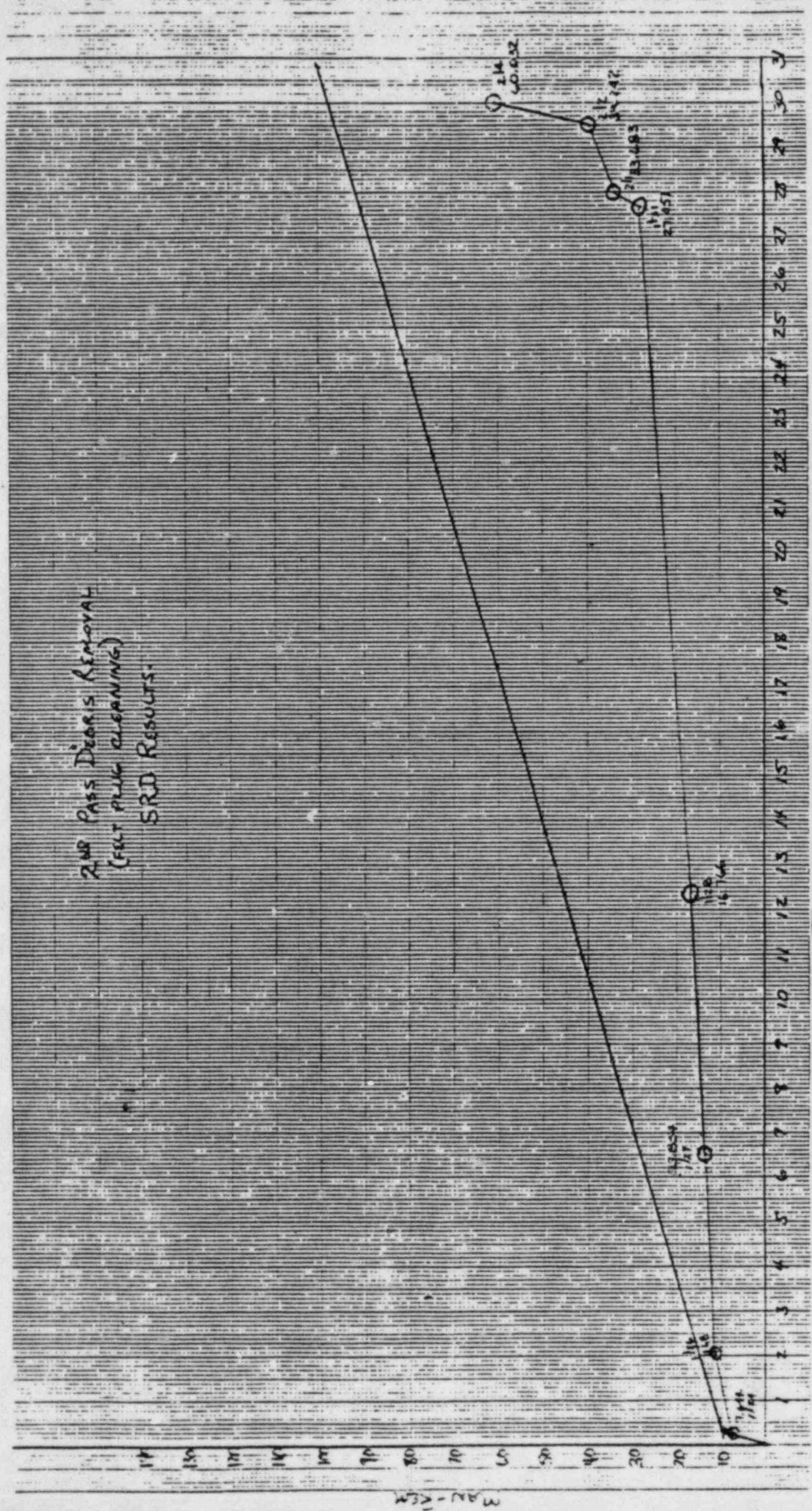
PLANNING SEQUENCE
JEFF HAWKINS
M.C SCHEDULING
2-8-83

FEBRUARY

11.7	115	116	117	118	119	210	211	212	213	214	215	216	217
------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



TOTAL NUMBER OF TUBES CLEARED
(THOUSANDS)



2ND PASS DEBRIS REMOVAL
(FILT PLUG CLEANING)
SRD RESULTS.

GENERAL PUBLIC UTILITIES
OTSG REPAIRS

DATE 2/9/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
1.	Cut and cap thio line . Revised Installation Spec - Mech & Elec . Resolve MNCR - Nuts & Bolts	S. Levin J. Mann G. Kull	Week of 2/14 TBD
2.	Round Robin Samples-NWT Lab . Spent Fuel . BWST . Decay Heat - Monthly Samples . Ship Next Monthly Samples <i>Sample samples on the PORU/ Codes safeties</i>	J. Colitz	End of Month 2/28
3.	Restoration Secondary Side A. Dehumidification System - Out-Waiting Decon B. Temp. Chem. System - Chemical Pumps, etc. C. Temp. & Humidity Probes Calibration Check		
4.	Ops OTSG Status A OTSG Level 194" <i>Both in full wet layup</i> B OTSG Level Recirc. . Full Wet Layup . Receive Backing Plate for "A" Upper Manway <i>A waiting phy leaks</i>		2/7 4/1
5.	Kinetic Expansion . Post Expansion Clean-up-Eng Spec & Equipment B&W Final Spec Received Mtg-Chem & Sampling Draft Procedure On Site Mt. Vernon Test Draft Procedure . Spare Regulators for Cold Leg Plugs . Felt Plug Blowing Device-Stores @ Reactor Bldg . Final Freepath - Blow Plugs from Top . Verify Bot A Template		2/16 2/1 2/10 2/1 2/7
6.	Immunol . OTSG Flush System for Immunol Application X STP for Spraying Dome-Waiting Approval . Rev 1 - Chem Add Flow Meter and Gauge <i>Both A & B installed up to</i>		1/28

*150°F pressure
10 A) apparent indication
2 B) of the amount of*

9100 Buffing - Chemistry Lab
 -2-
 OTSG REPAIRS

DATE 2/9/83

ITEM	DESCRIPTION	RESPONSIBILITY	DATE REQUIRED
7.	Tube Plug Stabilization		
	• Stabilizer Material Deliver		
	B OTSG		
	A OTSG		
	Spec for Prelim. Plugging-Final		
	Rev 6 Issued	C. K. Lee	
	Rev 7 Issued		2/2
	Equipment and Procedures to Pull Stabilizers		
	DRF Stabilization		TBD
	• Installation Procedure		
	• Tooling to Remove Stab.	B&W	2/15
	• Final Issue FCA-Reg and old Stabilizers		
	• Decision on 15th Suppt Plate Stabilization	B&W/TF	

Stabilizer length - jump packs
 will be down to the longer
 length (13 support plates) TBD

8. Miscellaneous Items to Resolve
- Pull Tapered Plug 23-93 for Stabilization - Tooling
 End Mill
 New Plug

9. Waiting Documentation
MNCR

Responsibility

- | | | |
|--------|-------------------------------------|-----|
| 215-82 | Plug Exploded at Wrong Area of Tube | B&W |
| 345-82 | 2 Tubes Plugged Incorrectly | |
| 354-82 | Documentation for Immunol-1st Batch | Eng |
| 420-82 | Damaged Tube Ends | |
| 426-82 | Wire Brush B6-1 | |
| 009-83 | Immunol at Cold Legs | |
| | Missed Kinetic Expansion Tube at B | |

Parralok

25mil vari.

A OTSG is almost complete

10. Tube Endmilling
- | | | |
|--|-----------------------|--------|
| B&W Proposal | 1200-1500 tubes/shift | Issued |
| Review Process and Establish Procedure | | TBD |
| Tooling | | 2/3 |
| Model for Trn. | | 2/3 |
| Photographics Surveillance | | |

11. Anticipated Jumps

Date	Description	Responsibility
2/9	A - Upper - Endmilling	Levin/Catalytic
	A - Lower -	
2/9	B - Upper - Endmilling	
	B - Lower -	

2ND PASS DEBRIS REMOVAL
(FILT PILE CLEANING)
SRD RESULTS

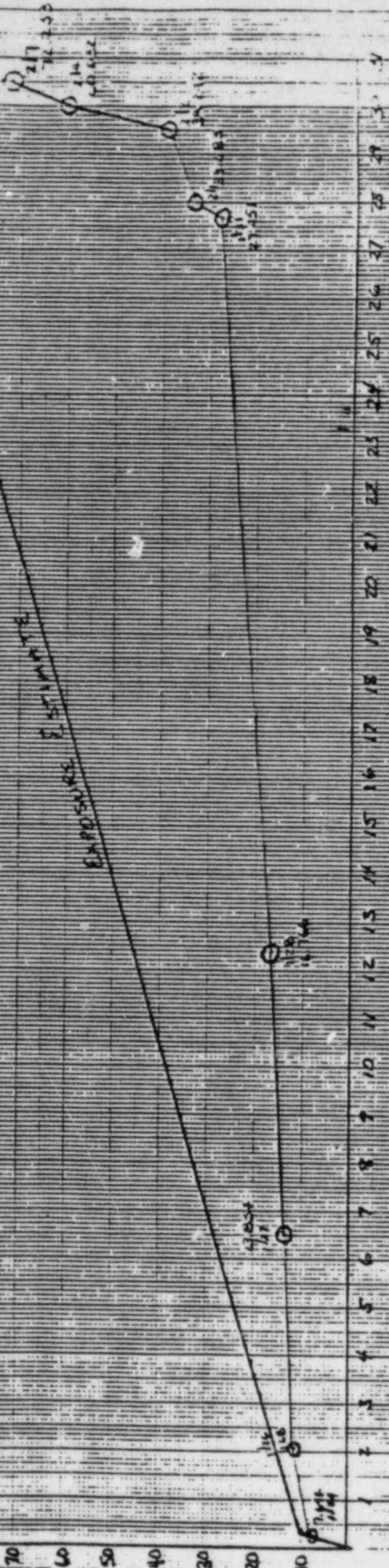
Man-Kem

TOTAL NUMBER OF TUBES CLEARED
(THOUSANDS)

H-E 10 X 10 TO THE CENT.
NEUTRAL A POWER CO

H-E 10 X 10 TO THE CENTIMETER
NEUTRAL A POWER CO

46 1512



GENERAL PUBLIC UTILITIES
OTSG REPAIRS

DATE 2/14/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
1.	Cut and Cap Thio Line	S. Levin	Week of 2/14
	. Revised Installation Spec - Mech & Elec	J. Mann	TBD
	. Resolve MNCR 015 - Nuts and Bolts	G. Kull	
	. Cut Pipe	M&C	2/16
	. Swipes	Ops	2/17
2.	Round Robin Samples-NWT Lab	J. Colitz	
	. Spent Fuel		
	. BWST		
	. Decay Heat - Monthly Samples		End of Month
	. Ship Next Monthly Samples		2/28
3.	Restoration Secondary Side		
	A. Dehumidification System - Out - Waiting Decon		
	B. Temp. Chem. System - Chemical Pumps, etc.		
	C. Temp. & Humidity Probes Calibration Check		
4.	Ops OTSG Status		
	. A and B OTSG Full Wet Layup		2/7
	. Receive Backing Plates for "A" Upper Manway		4/1
5.	Kinetic Expansion		
	. Post Expansion Clean-up--Eng Spec & Equipment B&W		2/16
	. Final Spec Received Mtg Chem & Sampling	<i>Friday Equipment Delivery</i>	2/1
	. Draft Procedure - On-site		
	. Mt. Vernon Test		2/10
	. Draft Procedure		2/1
	. Spare Regulators for Cold Leg Plugs		2/7
	. Felt Plug Blowing Device-Store at Reactor Bldg		
	. Final Freepath - Blow Plugs from Top		
6.	Immunol		
	. OTSG Flush System for Immunol Application		1/28
	. Rev 1 - Chem Add Flow Meter and Gauge		
	. Extra Drains - Duplex Strainers-FCR 3375		

Problem with rig to remove filing

-2-
OTSG REPAIRS

DATE 2/14/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
7.	Tube Plug Stabilization		2/25
	. Stabilizer Material Deliver		
	Spec for Prelim Plugging Final		
	Rev 6 Issued	C. K. Lee	
	Rev 7 Issued		2/2
	Equipment and Procedures to Pull		
	Stabilizers--Procedure on Site		
	DRF Stabilization		TBD
	. Installation Procedure		
	. Tooling to Remove Stabilizers		2/15
	. Final Issue FCA-Reg and Old Stabilizers		2/15
	. Jig to Bend Stabilizer Rods	B&W	
	. J.O. Lowering Head Templates	T. Sessoms	Week of 2/14
	. J.O. Spot Facing	T. Sessoms	2/14

8. Miscellaneous Items to Resolve

- . Pull Tapered Plug 23-93 for Stabilization - Tooling
- End Mill
- New Plug

9. Waiting Documentation

MNCR

Responsibility

215-82	Plug Exploded at Wrong Area of Tube	B&W
345-82	2 Tubes Plugged Incorrectly	
354-82	Documentation for Immunol-1st Batch	Eng
420-82	Damaged Tube Ends	
426-82	Wire Brush B6-1	
009-83	Immunol at Cold Legs	
031-83	Missed Kinetic Expansion Tube at B	

10. Tube Endmilling

A - 11,199 | Wednesday complete
B - 10,389

. Tooling	2/3
. Model for Trn.	2/3
. Photographic Surveillance	
. Hairpin Markers - Out of Decon	

11. Anticipated Jumps

<u>Date</u>	<u>Description</u>	<u>Responsibility</u>
2/14	A - Upper - Endmilling	Levin/Catalytic
	A - Lower -	
2/14	B - Upper -Endmilling	
	B - Lower -	

GENERAL PUBLIC UTILITIES
OTSG REPAIRS

DATE 2/15/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
1.	Cut and Cap Thio Line	S. Levin	Week of 2/14
	. Revised Installation Spec - Mech & Elec	J. Mann	TBD
	. Cut Pipe	M&C	2/16
	. Swipes	Ops	2/17
2.	Round Robin Samples-NWT Lab	J. Colitz	
	. Spent Fuel		
	. BWST		
	. Decay Heat - Monthly Samples		End of Month
	. Ship Next Monthly Samples		2/28
3.	Restoration Secondary Side		
	A. Dehumidification System - Out - At Decon		
	B. Temp. Chem. System - Chemical Pumps, etc.		
	C. Temp. & Humidity Probes Calibration Check		
4.	Ops OTSG Status		
	. A and B OTSG Full Wet Layup		2/7
	. Receive Backing Plates for "A" Upper Manway		4/1
5.	Post Expansion		
	. Post Expansion Clean-up--Eng Spec & Equipment B&W		2/16
	. Draft Procedure - On-site		
	. Spare Regulators for Cold Leg Plugs		2/7
	. Felt Plug Blowing Device-Store at Reactor Bldg		
	. Final Freepath - Blow Plugs from Top		TBD
6.	Immunol		
	. OTSG Flush System for Immunol Application		1/28
	. Rev 1 - Chem Add Flow Meter and Gauge		
	. Extra Drains - Duplex Strainers-FCR 3375		
	. Procedure Review		2/16

-2-
OTSG REPAIRS

DATE 2/15/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
7.	Tube Plug Stabilization		2/25
	. Stabilizer Material Deliver		
	Spec for Prelim Plugging Final		
	Rev 6 Issued	C. K. Lee	
	Rev 7 Issued		2/2
	Equipment and Procedures to Pull		
	Stabilizers--Procedure on Site		
	DRF Stabilization		TBD
	. Installation Procedure		
	. Tooling to Remove Stabilizers		2/15
	. Final Issue FCA-Reg and Old Stabilizers		2/15
	. Jig to Bend Stabilizer Rods	B&W	2/15
	. J.O. Lower Head Templates	T. Sessoms	Week of 2/14
	. J.O. Spot Facing	T. Sessoms	2/14

8. Miscellaneous Items to Resolve

- . Pull Tapered Plug 23-93 for Stabilization - Tooling
End Mill
New Plug

9. Waiting Documentation

MNCR

Responsibility

215-82	Plug Exploded at Wrong Area of Tube	B&W
345-82	2 Tubes Plugged Incorrectly	
354-82	Documentation for Immunol-1st Batch	Eng
420-82	Damaged Tube Ends	
426-82	Wire Brush B6-1	
009-83	Immunol at Cold Legs	
031-83	Missed Kinetic Expansion Tube at B	

10. Tube Endmilling

. Tooling	A 12,	2/3
. Model for Trn.	B 13,	2/3
. Photographic Surveillance		
. Hairpin Markers - Out of Decon		

11. Anticipated Jumps

<u>Date</u>	<u>Description</u>	<u>Responsibility</u>
-------------	--------------------	-----------------------

2/15	A - Upper - Endmilling	Levin/Catalytic
	A - Lower -	

2/15	B - Upper -Endmilling	
	B - Lower -	

TUBE END MILLING EXPOSURE SAD RESULTS

120
110
100
90
80
70
60
50
40
30
20
10

EXPOSURE ESTIMATE

NOTE: FINAL EXPOSURE
FOR CAP PASS DEPOSITS
REMOVED 4-2-75 2 MIN. RUN
100 MAX. REM. WAS ESTIMATED.

214
57.49

210
57.49

210
57.49

210
57.49

TOTAL NUMBER OF TUBES MILLED
(THOUSANDS)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

GENERAL PUBLIC UTILITIES
OTSG REPAIRS

DATE 2/17/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
1.	Cut and Cap Thio Line	S. Levin	Week of 2/14
	. Revised Installation Spec - Elec	J. Mann	TBD
	. Cut Pipe	M&C	2/17
	. Swipes	Ops	2/17
2.	Round Robin Samples-NWT Lab	J. Colitz	
	. Spent Fuel		
	. BWST		
	. Decay Heat - Monthly Samples		End of Month
	. Ship Next Monthly Samples		2/28
3.	Restoration Secondary Side		
	A. Dehumidification System - Out - At Decon		
	B. Temp. Chem. System		
	C. Temp. & Humidity Probes Calibration Check		
4.	Ops OTSG Status		
	. A and B OTSG Full Wet Layup		2/7
	. Receive Backing Plates for "A" Upper Manway		4/1
5.	Post Expansion		
	. Post Expansion Clean-up--Eng Spec & Equipment B&W		2/16
	. Draft Procedure - On-site		
	. Spare Regulators for Cold Leg Plugs-Locate		
	. Felt Plug Blowing Device-Store at Reactor Bldg		
	. Final Freepath - Blow Plugs from Top		TBD
6.	Immunol		
	. OTSG Flush System for Immunol Application		1/28
	. Rev 1 - Chem Add Flow Meter and Gauge		
	. FCR 6866 R. 1 Issued		
	. Extra Drains - Duplex Strainers-FCR 6866 R. 2		
	. Procedure Review		2/17
	. Revise Draft Flush Procedure		

-2-
OTSG REPAIRS

DATE 2/17/83

ITEM	DESCRIPTION	RESPONSIBILITY	DATE REQUIRED
7.	Tube Plug Stabilization		2/25
	. Stabilizer Material Deliver		
	Spec for Prelim Plugging Final		
	Rev 8 Issue	C. K. Lee	TBD
	Equipment to Pull Stabilizers		
	Procedure Received--for Review		TBD
	DRF -Safety Eval. on Stabilization		TBD
	. Installation Procedure-Insertion & Welding		
	. Final Issue FCA-Reg Stabilizers	B&W	2/17
	Old/Special Stabilizers		2/18
	. J.O. Lower Head Templates	G. Kull	2/16
	. Spot Facing Installation Procedure	G. Kull	2/16
	. Tooling to Remove Explosive Plugs	B&W	TBD
	. Installation Procedure		
	W Plug Removal		TBD

8. Miscellaneous Items to Resolve
- . Pull Tapered Plug 23-93 for Stabilization - Tooling
End Mill
New Plug

9. Waiting Documentation

MNCR		Responsibility
215-82	Plug Exploded at Wrong Area of Tube	B&W
345-82	2 Tubes Plugged Incorrectly	
354-82	Documentation for Immunol-1st Batch	Eng
420-82	Damaged Tube Ends	
426-82	Wire Brush B6-1	
009-83	Immunol at Cold Legs	
031-83	Missed Kinetic Expansion Tube at B	

10. Tube Endmilling

- . Tooling *A second pass (3 HRS left) 2 days - 20 hrs*
- . Model for Trn. *B finish first pass (4-5 HRS left) 3 days - 40 hrs*
- . Photographic Surveillance
- . Hairpin Markers - Out of Decon

Flush on Tuesday (one good clamp before clamp)

11. Anticipated Jumps

Date	Description	Responsibility
2/17	A - Upper - A - Lower -	Levin/Catalytic
2/17	B - Upper - B - Lower -	

TUBE ENDMILLING EXPOSURE SRD RESULTS

Max-Rcm

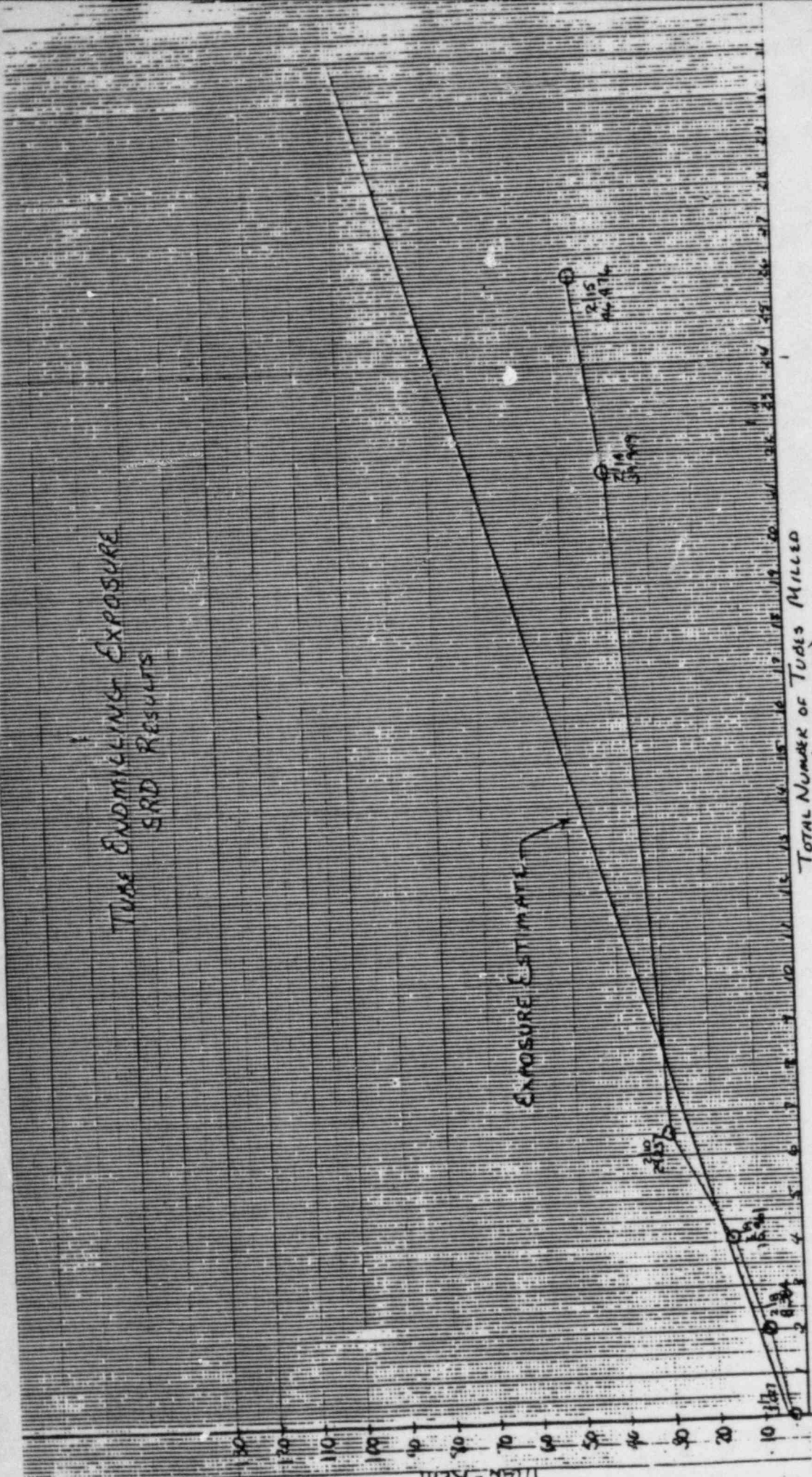
EXPOSURE ESTIMATE

TOTAL NUMBER OF TUBES MILLED
(THOUSANDS)

ICE 10 X 10 TO THE CENTIMETER
NUMBER 100000000

ICE 10 X 10 TO THE CENTIMETER
NUMBER 100000000

461512



GENERAL PUBLIC UTILITIES
OTSG REPAIRS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE</u> <u>2/22/83</u> <u>DATE</u> <u>REQUIRED</u>
1.	Cut and Cap Thio Line . Revised Installation Spec - Elec . Swipes @ Lynchburg	S. Levin J. Mann	Week of 2/14 TBD
2.	Round Robin Samples-NWT Lab . Spent Fuel . BWST . Decay Heat - Monthly Samples . Ship Next Monthly Samples	J. Colitz	 2/28
3.	Restoration Secondary Side A. Dehumidification System - Out - At Decon B. Temp. Chem. System C. Temp. & Humidity Probes Calibration Check		
4.	Ops OTSG Status . A and B OTSG Full Wet Layup . Receive Backing Plates for "A" Upper Manway		2/7 4/1
5.	Post Expansion . Post Expansion Clean-up--Eng Spec & Equipment Draft Procedure - On-site . Spare Regulators for Cold Leg Plugs-Locate . Felt Plug Blowing Device-Store at Reactor Bldg . Final Freepath - Blow Plugs from Top	B&W B&W	2/16 TBD
6.	Immunol Flush System . OTSG Flush System for Immunol Application . Rev 1 - Chem Add Flow Meter and Gauge FCR 6866 R. 1 Issued . Extra Drains - Duplex Strainers-FCR 6866 R. 2 . Procedure Review - STP Installation Procedure . Revise Draft Flush Procedure		1/28 2/17

OTSG REPAIRS

DATE 2/22/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
7.	Tube Plug Stabilization		2/25
	. Stabilizer Material Deliver		
	. Spec for Prelim Plugging Final		
	Rev 8 Issue	C. K. Lee	TBD
69 pages	Equipment to Pull Stabilizers		
	Procedure Received--for Review		2/22
	Explosive Plug Removal Procedure		2/22
	Tapered Plug Removal		2/22
	DRF -Safety Eval. on Stabilization		TBD
	. Installation Procedure-Insertion & Welding		
8.	Miscellaneous Items to Resolve		
	. Pull Tapered Plug 23-93 for Stabilization - Tooling		
	Details in FCA	End Mill	
		New Plug	
9.	Waiting Documentation		
	<u>MNCR</u>	<u>Responsibility</u>	
215-82	Plug Exploded at Wrong Area of Tube	B&W	
345-82	2 Tubes Plugged Incorrectly		
354-82	Documentation for Immunol-1st Batch	Eng	
420-82	Damaged Tube Ends		
426-82	Wire Brush B6-1		
009-83	Immunol at Cold Legs		
031-83	Missed Kinetic Expansion Tube at B		
10.	Tube Endmilling		
	. Tooling	A will be done tomorrow	
	. Photographic Surveillance	B will be done tomorrow night	
	. Hairpin Markers - Out of Decon		
11.	Anticipated Jumps		
	<u>Date</u> <u>Description</u>	<u>Responsibility</u>	
2/21	A - Upper -	Levin/Catalytic	
	A - Lower -		
2/21	B - Upper -		
	B - Lower -		

Equipment will go into tomorrow
 1) first flush of tubes and then flush the head the second pass

GENERAL PUBLIC UTILITIES
OTSG REPAIRS

DATE 2/24/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
1.	Cut and Cap Thio Line <ul style="list-style-type: none"> Revised Installation Spec - Elec Swipes at Lynchburg <i>Welding next week</i> 	S. Levin M&C Planning	Week of 2/14 TBD
2.	Round Robin Samples-NWT Lab <ul style="list-style-type: none"> Spent Fuel BWST Decay Heat - Monthly Samples Ship Next Monthly Samples 	J. Colitz	End of Month 2/28
3.	Restoration Secondary Side <ul style="list-style-type: none"> A. Temp. Chem. System B. Temp. & Humidity Probes Calibration Check 		
4.	Ops OTSG Status <ul style="list-style-type: none"> A and B OTSG Full Wet Layup Receive Backing Plates for "A" Upper Manway 		2/7 4/1
5.	Post Expansion <ul style="list-style-type: none"> Post Expansion Clean-up--Eng Spec & Equipment B&W Draft Procedure - On-site-Second Set of Equipment B&W Felt Plug Blowing Device-Store at Reactor Bldg Final Freepath - Blow Plugs from Top 		2/16 2/24 TBD
6.	Immunol Flush System <ul style="list-style-type: none"> Extra - Duplex Strainers Pump Seal on A 		
7.	Tube Plug Stabilization <ul style="list-style-type: none"> Stabilizer Material Deliver Spec for Plugging Final Rev 8 Issue-Out for Comment Equipment to Pull Stabilizers Procedure Received--for Review Explosive Plug Removal Procedure Tapered Plug Removal HOLD W Removal /QC/QA DRF - Safety Eval. on Stabilization-Out for Comment Installation Procedure-Insertion & Welding 	C. K. Lee	2/25 TBD 2/22 2/22 2/22 TBD 3/2

69 are present

MARCH 15

Not yet

8. Miscellaneous Items to Resolve

- Pull Tapered Plug 23-93 for Stabilization - Tooling
(Details in FCA) End Mill
New Plug
- Hydrogen Peroxide Tube Soak

Responsibility

215-82	Plug Exploded at Wrong Area of Tube	B&W
345-82	2 Tubes Plugged Incorrectly	
354-82	Documentation for Immunol-1st Batch	Eng
420-82	Damaged Tube Ends	
426-82	Wire Brush B6-1	
009-83	Immunol at Cold Legs	
031-83	Missed Kinetic Expansion Tube at B	

- . Tooling
- . Photographic Surveillance
- . Hairpin Markers - Out of Decon

Endmilling Exposure as of 2/23 =	103.607 MR
Endmilling Exposure Estimate	100.000 MR
Total TSG Exposure since 1st Blast	639.920 MR
Total TSG Exposure since Nov 1981	816.109 MR

Responsibility

Levin/Catalytic

2/24 B - Upper -
 B - Lower -

4. Crop Spraying

GENERAL PUBLIC UTILITIES
OTSG REPAIRS

DATE 2/25/83

DATE
REQUIRED

ITEM

DESCRIPTION

RESPONSIBILITY

- | | | | |
|----|--|-----------|--|
| 1. | Cut and Cap Thio Line
. Revised Installation Spec - Elec
. Swipes at Lynchburg
. Weld Pipe | S. Levin | Week of 2/14
TBD

3/2 |
| 2. | Round Robin Samples-NWT Lab
. Spent Fuel
. BWST
. Decay Heat - Monthly Samples
. Ship Next Monthly Samples | J. Colitz |

End of Month
2/28 |
| 3. | Restoration Secondary Side
A. Temp. Chem. System
B. Temp. & Humidity Probes Calibration Check | | |
| 4. | Ops OTSG Status
. A and B OTSG Full Wet Layup
. Receive Backing Plates for "A" Upper Manway | |
2/7
4/1 |
| 5. | Post Expansion
<i>Ship tooling</i> . Post Expansion Clean-up-Eng Spec & Equipment B&W
Draft Procedure-On-site-Second Set of Equipment B&W
. Felt Plug Blowing Device-Store at Reactor Bldg
. Final Freepath - Blow Plugs from Top | |
2/16
2/24

TBD |
| 6. | Immunol Flush System
. Extra - Duplex Strainers
. Pump Seal on A
<i>Full on the 'B' side</i> | |

2/24 |
| 7. | Tube Plug Stabilization
. Stabilizer Material Deliver-Rcd 69
Remaining Stab. Material
Spec for Plugging Final
Rev 8 Issue-Out for Comment
Equipment to Pull Stabilizers
Procedure Received--for Review
Explosive Plug Removal Procedure
Tapered Plug Removal
W Plug Removal-Needs Reviewed
DRF - Safety Eval. on Stabilization-Out for Comment
. Installation Procedure-Insertion & Welding | C. K. Lee |
2/25

2/2

TBD

2/22
2/22
2/22

TBD
3/2 |

*back flush
of strainers
changing the filter*

-2-
OTSG REPAIRS

DATE 2/25/83
DATE
REQUIRED

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE</u> <u>REQUIRED</u>
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8. Miscellaneous Items to Resolve
- . Pull Tapered Plug 23-93 for Stabilization - Tooling
(Details in FCA) End Mill
New Plug
 - . Hydrogen Peroxide Tube Soak

9. Waiting Documentation
MNCR

Responsibility

- | | | |
|----------|-------------------------------------|-----|
| → 215-82 | Plug Exploded at Wrong Area of Tube | B&W |
| → 345-82 | 2 Tubes Plugged Incorrectly | |
| 354-82 | Documentation for Immunol-1st Batch | Eng |
| 426-82 | Wire Brush B6-1 | |
| 009-83 | Immunol at Cold Legs | |
| 004-83 | <i>Tube ends didn't meet th</i> | |

10. Tube Endmilling

- . Tooling
- . Photographic Surveillance
- . Hairpin Markers - Out of Decon
- A complete (plug gauging) platform out face path 12*
- B*

11. Rad Con Exposure Data

- . Endmilling Exposure as of 2/28 = 110.466 Man Rem
- . Endmilling Exposure Estimate 100.000 Man Rem
- . Total OTSG Exposure since 1st Blast 646.779 Man Rem
- . Total OTSG Exposure since Nov 1981 822.968 Man Rem

12. Anticipated Jumps

<u>Date</u>	<u>Description</u>	<u>Responsibility</u>
2/25	A - Upper -) <i>chanup</i> A - Lower -)	Levin/Catalytic
2/25	B - Upper -) B - Lower -) <i>HANX CAMERA</i>	<i>spray the dome</i>

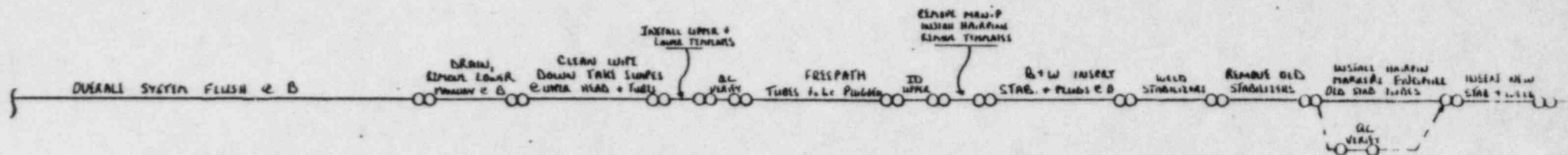
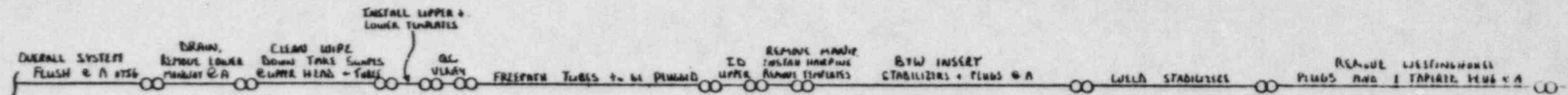
24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9



MARCH

MARCH

18 19 20 21 22 23 24



FEBRUARY
 MON 210 21 212 213 214 215 216 217 218
 MON MARCH 1 12 13 14 15 16 17 18

PL- ENDMILL
 REMOVES TRIPPS
 (ROUND LIPS) + PT
 ENDMILL FOR BOW
 PLUGGING + STAB
 INSTALL
 LOWER
 MAINWAY
 STOPS

OVERALL SYSTEM FLUSH @ A DTSG

REC.
 BOW LOAD

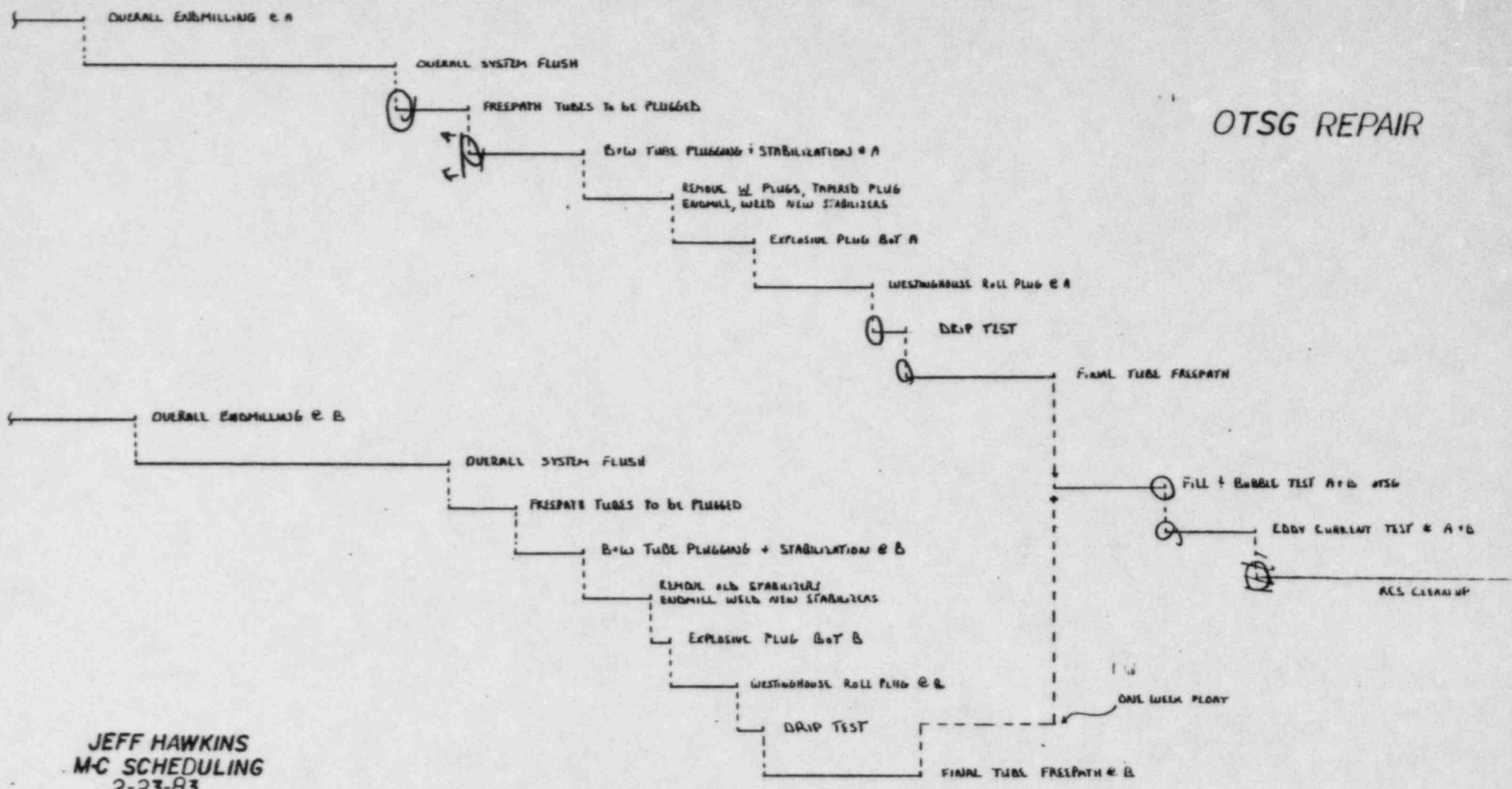
INSTALL
 LOWER
 MAINWAY
 STOPS

OVERALL ENDMILLING @ A
 ENDMILL FOR BOW
 PLUG + STAB

OVERALL SYSTEM FLUSH @ B DTSG

FEB | MARCH | APRIL | MAY
 21 28 17 14 21 28 14 11 18 25 12

OTSG REPAIR



JEFF HAWKINS
 M-C SCHEDULING
 2-23-83

GENERAL PUBLIC UTILITIES
OTSG REPAIRS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	DATE
			<u>DATE REQUIRED</u>
1.	Cut and Cap Thio Line . Revised Installation Spec - Elec . Swipes at Lynchburg <i>Results</i> . Weld Pipe	S. Levin	Week of 2/14 TBD 3/2
2.	Round Robin Samples-NWT Lab . Spent Fuel . BWST . Decay Heat - Monthly Samples . Ship Next Monthly Samples	J. Colitz	End of Month 2/28
3.	Restoration Secondary Side A. Temp. Chem. System B. Temp. & Humidity Probes Calibration Check		
4.	Ops OTSG Status . A and B OTSG Full Wet Layup . Receive Backing Plates for "A" Upper Manway		2/7 4/1
5.	Post Expansion X Post Expansion Clean-up-Eng Spec & Equipment B&W Draft Procedure-On-site-Second Set of Equipment B&W . Felt Plug Blowing Device-Store at Reactor Bldg . Final Freepath - Blow Plugs from Top		2/16 2/24 TBD
6.	Immunol Flush System . Extra - Duplex Strainers . Pump Seal on A <i>leakage is minor</i> <i>Status</i> 'B' 30-50% done cool by plug leak <i>refill recirc / spraying</i> 'A' first passes <i>complete</i> <i>draining</i>		3/1 2/24
7.	Tube Plug Stabilization . Stabilizer Material Deliver-Rcd 69 Remaining Stab. Material Spec for Plugging Final Rev 8 Issue-Out for Comment Equipment to Pull Stabilizers Procedure Received--for Review Explosive Plug Removal Procedure Tapered Plug Removal W Plug Removal-Needs Reviewed DRF -Safety Eval. on Stabilization-Out for Comment . Installation Procedure-Insertion & Welding	C. K. Lee	2/25 2/2 TBD 2/22 2/22 2/22 TBD 3/2

Well thought out

8. Miscellaneous Items to Resolve

- Pull Tapered Plug 23-93 for Stabilization - Tooling
(Details in FCA) End Mill
New Plug
- Hydrogen Peroxide Tube Soak

Responsibility

215-82	Plug Exploded at Wrong Area of Tube	B&W
345-82	2 Tubes Plugged Incorrectly	
354-82	Documentation for Immunol-1st Batch	Eng
426-82	Wire Brush B6-1	
009-83	Immunol at Cold Legs	
041-83	Tube Ends	Eng.

350 photos

- . Tooling
- . Photographic Surveillance
- . Hairpin Markers - Out of Decon

Endmilling Exposure	as of 2/24 =	110.466	Man Rem
Endmilling Exposure	Estimate	100.000	Man Rem
Total OTSG Exposure	since 1st Blast	646.779	Man Rem
Total OTSG Exposure	since Nov 1981	822.968	Man Rem

12 Free path Next Monday
STP

18. Anticipated Jumps

<u>Date</u>	<u>Description</u>	<u>Responsibility</u>
2/28	A - Upper - A - Lower -	Levin/Catalytic
2/28	B - Upper - B - Lower -	<i>Camera will not catalytic</i>

Tom GRAM

GENERAL PUBLIC UTILITIES
OTSG REPAIRS

DATE 3/4/83

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE REQUIRED</u>
1.	Cut and Cap Thio Line . Revised Installation Spec - Elec		TBD
2.	Round Robin Samples-NWT Lab . Spent Fuel . BWST . Decay Heat - Monthly Samples . Ship Next Monthly Samples	J. Colitz	End of Month 3/31
3.	Restoration Secondary Side A. Temp. Chem. System	A Fill intermediate pass	
4.	Ops OTSG Status . A and B OTSG Full Wet Layup . Receive Backing Plates for "A" Upper Manway		2/7 4/1
5.	Post Expansion . Felt Plug Blowing Device-Store at Reactor Bldg . Final Freepath - Blow Plugs from Top		TBD
6.	Immuno1 Flush System . Extra - Duplex Strainers and O Rings . Receive Spare Cold Leg Plugs . Receive Vyton Tubing		3/1 3/4
	• 5ppm for Immuno1 • 1ppm TDS		
7.	Tube Plug Stabilization . Stabilizer Material Deliver-Rcd 69 Remaining Stab. Material . Spec for Plugging Final Rev 8 Issue- . Procedure Received--for Review Remove Stabilizers and Restabilize Explosive Plug Removal Procedure Tapered Plug Removal W Plug Removal-Needs Reviewed . DRF - Safety Eval. on Stabilization . Installation Procedure-Insertion & Welding . Receive Eddy Current Templates	C. K. Lee	2/25 3/7 TBD TBD TBD TBD TBD 3/7 3/14

Dome Flush

-2-
OTSG REPAIRS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>	<u>DATE</u> 3/4/83 <u>DATE REQUIRED</u>
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8. Miscellaneous Items to Resolve
 . Hydrogen Peroxide Tube Soak

9. Waiting Documentation
 MNCR

Responsibility

215-82	Plug Exploded at Wrong Area of Tube	B&W
345-82	2 Tubes Plugged Incorrectly	
354-82	Documentation for Immunol-1st Batch	Eng
426-82	Wire Brush B6-1	
009-83	Immunol at Cold Legs	
→ 041-83	Tube Ends	Eng.

10. Tube Endmilling

11. Rad Con Exposure Data (Based on SRDs)
 . Immunol Flush Exposure as of 3/3 - 7.6 Man Rem
 . Immunol Flush Estimate - 30 Man Rem
 . Total OTSG Exposure since 1st Blast - 668 Man Rem
 . Total OTSG Exposure since Nov 1981 - 845 Man Rem

12. Freepath Work
 . Training

3/3 - 3/4

13. Bubble/Drip Test

(Hard Roll with water in there)

3/18

14. Anticipated Jumps

<u>Date</u>	<u>Description</u>	<u>Responsibility</u>
3/4	A - Upper - A - Lower -	Levin/Catalytic
3/4	B - Upper - B - Lower -	

Schedule

Nut Work → Stablage
 Wdd → Quads

14 March - 18 March (W)

B Stable → 18 85
 A
 18 MARCH 40005 SCW
 30005 Westinghouse