M-ML-G-0005

STRUCTURAL INTEGRITY DATABASE (F/H AREAS)

Revision 45 Approval Signatures

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HLW information: No ADC/RO review required.

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The structural integrity information required by WSRC-SA-2002-00007, "CSTF Documented Safety Analysis" that was contained in this document has been relocated to the Asset Information Management (AIM) Database.

Record of Revisions

Rev.	Date	Description
45	08/21/03	Complete revision. Information relocated to AIM.
44	07/02/03	Complete revision. Deleted Tables not required by DSA.
43	05/27/03	Complete revision. Added new HDB-7 jumpers, Qualification for HDB-2 jumper
42	05/07/03	Complete revision. Added Tk-11 line, 16-H evap. Jumper, and line 3934
41	04/15/03	Complete revision. Reformatted Table 1F and 1H. Removed lines 15910, 16011, 16053 from Table 4H.
40	04/08/03	Complete revision. Corrected typos. Added switches to table 1G.
39	04/01/03	Complete revision. Added Table 1G.
38	03/14/03	Complete revision. Reformatted Tables 13F and 13H.
37	03/05/03	Complete revision. Corrected CLI Numbers.
36	12/02/02	Complete revision. Added above-ground line information. Added missing drawing numbers.
35	07/30/02	Complete revision.
34	10/01/01	F Area: • In Table 1F part A: revised comments for lines 110 and added line 547. part D: revised line 118, added line 5016 and deleted line 547. H Area: • In Table 1H part A: revised lines 1660, 1661, 1701A, 3059 (cut section) part D: added line 1661 (cut section) • In Table 4H: revised lines 651A, 656A, 1661, 1701A. • In Table 5H: revised lines 1628, 1651, 1661, 1661 (cut section) and 1701A. • In Table 6H: revised lines 1661, 1661 (cut section) and 1701A.
33	8/28/01	F Area: • In Table 1F: revised footnote #1. H Area: • In Table 1H: removed column "TSR Tracking Database No." part A: revised footnote #1 and revised lines 1660, 1628, 1651, 1100 through 1103, 1501, 1528, 3083, 1626, 3051, 2702, 2703, 2708, 3054, 3055, 1653, 1654, 2701, 1663, added line 1252A 651A, 656A, 1253A and 3056, added comments for lines 3097, 3098. part B: removed lines 651A and 656A. • In Table 3H: added PSR 3.9.2.1.31 and revised PSR 3.9.2.1.11. • In Table 4H: added GDLs 479, 552 and comments for GDLs 475, 476, 477, 479, 552, 100, 535, 3097, 3098 revised core pipe length for lines 100(IAL) and 101(IAL), revised lines 1252A, 1660, 1628, 1651, 1100 through 1003, 1501, 1528, 3083, 1626, 3051, 2702, 2703, 2708, 3054, 1653, 1654, 2701, 1663, 651A, 656A, 1253A • In Table 5H: revised lines 1628, 1651, 1100 through 1103, 1501, 1528, 3083, 1626, 3051, 2702, 2703, 2708, 3054, 3055, 1653, 1654, 2701, 1663, 1662, 651A, 656A, 1253A, and revised footnote #1. • In Table 6H: revised lines 1628, 1651, 1100 through 1103, 1501, 1528, 3083, 1626, 3051, 2702, 2703, 2708, 3054, 3055, 1653, 1654, 2701, 1663, 1662 • In Table 13H: added comments for jumpers 100-86-1, 100-91-1, 100-88, 100-121, 100-123, 100-124-3, 100-140 and engineering numbers for 242-16H evaporator jumpers. replace jumper 5(HPP-7)20 with jumper 5(HPP-7)2,20.
32	6/26/01	F Area: • In Table 1F part A: added footnotes to lines 73, 110, 213, 397, 1378, 1379, 1461, 1462, 3273, 3274, 108(DB4), and moved lines 9, 212 from part D to part A. • In Table 2F: added comments for Tanks 5F & 6F. H Area:

		• In Table 1H: revised lines 3056, 27, 29, 30, 104, 251, 504, 1051, 1052, 1502A, 1503A. • In Table 3H: added PSR 3.9.2.1.30 • In Table 4H: revised lines 3056, 1660 • In Table 5H: revised lines 3056, 1660 • In Table 6H: revised lines 1660, 1661, 3056
31	04/10/01	F Area: • In Table 2F: added the location of the leaksites in Tank 6. H Area: • In Table 13H: added the references for jumpers 10(HPP7)6, 10(HPP9)6, 11(HPP10)6, 6,7(HPP8)3, 6,7(HPP9)3, 7,8(HPP10)3, 4(HPP10)1, 22(HPP8)14, 1(HPP8)15, 1(HPP7)15, 7(HPP7)3, 22(HPP7)23X.
30	03/29/01	F Area: • In Table 1F part A: revised comments for lines 100, 1476,1478, 101(221F), 103(221F), part D: revised comments for lines 100(221F), 102(221F), 115, 1475, 1488.
29	03/28/01	F Area: • In Table 1F part A: added line 213, deleted line 1475 part D: added lines 103(221F) and 1475, added evaluation for lines 100(221F) and 1475, deleted line 213, revised lines 210, 211, 212, 101(221F). • In Table 4F: revised lines 210, 211, 212 and 213. • In Table 5F: revised lines 210 and 213. • In Table 6F: revised line 213. H Area: • In Table 4H: revised jacket diameter for lines 3096, 3102 and 100(EVAP). • In Table 13H: added comment for 4H(HDB8)21H and added Tk 43 to Tk 38 transfer jumper.
28	03/08/01	F Area: • In Table 1F part D: revised lines 520, 521, 3751and 3753 and revised footnote #6. • In Table 2F: added comments for Tank 6F. • In Table 14F: added references for FDBs, FPPs, and 242-16F. H Area: • In Table 1H part A: revised lines 3958, 3964, 104 and 111. • In Table 3H: added comments for PSR #3.9.2.1.4. • In Table 4H: deleted reference g and line 479 and revised references for all transfer lines. • In Table 13H: added jumper for HDB-3 and references for 18H(HDB8)16 & 18(HDB8)11,18H. • In Table 14H: added references for HDBs (except HDB-8), HPPs and 242-16H.
27	12/19/00	Revised format of the SID and added List of Acronyms to the Introduction. F Area: • In Table 1F part D: added comments for lines 520, 521, 3751, and 3753. • In Table 3F: revised surveillance requirements for SSCs in F Tank Farm. H Area: • In Table 3H: revised surveillance requirements for SSCs in H Tank Farm. • In Table 4H: added references for lines 3052, 3053, 16102, 16103, 16312, 16460, 1552A, and 404E. • In Table 8H: added reference for Tank 40 valve boxes.
26	12/07/00	F Area: • In Table 14F: revised references for FDBs, FPPs. • In Table 8F: added comments for valve boxes W518-17-1 through W518-17-5, W328-15-3, W328-15-4. H Area: • In Table 1H: added comments for line 2708. • In Table 6H: added comment for line 2708. • In Table 13H: added status of valve WTS-V-163. • In Table 14H: revised references for HPFP, HPPs, HDBs, added reference #60.
25	11/20/00	Revised format of document. Removed dates and revision numbers for all of the calculations, reports and memos.

		Removed "date completed" column in Tables 2F, 3F, 2H, 3H. Revised List of Effective Tables on page vii. Revised Table of Contents. Split Table 29 of Rev. 24 into two Tables 15F and 15H. Combined Tables 27 and 28 of Rev. 24 into two Tables 14F and 14H. <u>F Area:</u> • In Table 1F part A: revised line 110 • In Table 1F part D: revised lines 212, 520, 521, 17015, deleted lines 12714, 14811, 16603 • In Table 4F: added lines 7, 8, 110, 112, 114, 118, 161, 210, 211, 212, 213, 520, 521, 960, 1013, 1040, 1054, 1104, 1408, 1414, 3260, 3261, 3265, 3266, 3267, 3273, 3274, 3275, 3276, 3277, 3278, 4878, 9852, 17015, 100(221F), 101(221F), 103(DB4), 103(221F), 107(DB4), 108(DB2), 115(DB2) and 3260(DB6). • In Table 5F: revised lines 110, 520, 521, 212, 17015, deleted lines 12714, 14811, 16603. • In Table 6F: revised lines 110, 212. • In Table 13F: added comments for FDB-4. <u>H Area:</u> • In Table 1H parts A and B: revised comments for all transfer lines • In Table 2H: added comments for Tanks 24H and 30H. • In Table 4H: deleted lines 102E, 103E, added lines 9 through 15, 27, 29 through 32, 100, 103, 140, 149, 150, 451, 452, 501, 504 through 509, 665, 910, 911, 930, 1052, 1104, 1825, 2225, 2703, 3055, 3056, 3063, 3068, 3069, 3378, 3958, 3964, 5811, 12261, 13568, 101(DB3), 101(DB4), 101E, 105E, 1251A, 20E, 303E, 403E, 404E, 503E and 603E. • In Table 5H: revised lines 101(DB4), 42E, 36E, 39E, 41E, 33E, 45E, 48E, deleted lines 102E, 103E. • In Table 6H: deleted lines 102E, revised line 210003. • In Table 13H: added comments for HDB-4, HDB-6, HDB-7.
24	10/3/00	Revised table of contents to include list of effective tables. Revised format of document. <u>F Area:</u> • In Table 1 part A: revised comments for line 110. <u>H Area:</u> • In Table 14: moved line 101E from part D to part E and revised comments for line 2708 in part A. • In Table 15: added comments for Tank 22H and added references for Tank 23. • In Table 28: revised classification for Type I, II, and IV waste tanks.
23	8/31/00	<u>F Area:</u> • In Table 1 part A: deleted line 9 and added line 9001. • In Table 1 part D: added line 9. • In Table 4: revised comments for lines 9000, and 9002 to 9006. • In Table 5: deleted line 9 and added line 9001. • In Table 6: deleted line 9, added line 9001 and revised line 100.
22	8/9/00	<u>F Area:</u> • In Table 1 part A: added line 110 • In Table 1 part D: deleted line 110 • In Table 3: added surveillance requirements for the followings: • 2F evaporator tube bundle, 2F evaporator jumper piping, 2F evaporator cell, and 2F 150-psig steam pressure relief valve, • tank vapor space sample tubing for Tanks 8 & 19, ventilation ductwork at Tanks 8 & 19, valve boxes and leak detection box at Tank 8, • FDB-1 wall nozzle, FPT-1 passive ventilation device, FPT-1 isolation valves, FPT-1 overflow line. • In Table 12: revised comments and measurement frequency. • In Table 13: added HPFP, added references for pump pits 1 to 3, diversion boxes 2 to 4. <u>H Area:</u> • In Table 16: added surveillance requirement for 242-25H evaporator cell, added measurement frequency for all support systems. • In Table 25: revised comments and measurement frequency.

		• In Table 26: added references for several jumpers (see the shaded cells). • In Table 27: revised the references for items 1 to 4.
21	7/17/00	Revised page count and table number. F Area: • Generated Table 13 for pump pits, diversion boxes, jumpers and valves in F-Area. • Moved "Valve boxes for Tanks 7F, 8F and 28F" from Table 27 to Table 8. • In Table 1: revised line 9. • In Tables 5 and 6: revised line 9. H Area: • Generated Table 26 for pump pits, diversion boxes, jumpers and valves in H-Area. Added the conditions of valve WTS-V-134 at HDB-2, WTS-V-137 at HPP-5 and jumper 8A(HPP6)1A, 2A at HPP-6 into Table 26. • Moved "Valve boxes for Tanks 21H and 22H" from Table 27 to Table 21. • In Table 16: added the comments for flush water system outside of 3H evaporator. • In Table 27: revised item 26. • In Table 28: added walkdown status for Tank 8.
20	6/19/00	F Area: • In Table 3: deleted Tank 4 HV inlet filter. • In Table 25: revised item 43. • In Table 26: added known deficiencies and references for Tanks 1F to 8F. • In Table 27: added footnote for Type IV Tank Risers. H Area: • In Table 13 part A: revised comments for lines 2708, 3958 and 3964. • In Table 26: added known deficiencies and references for Tanks 9H to 15H.
19	06/06/00	Revised page count and table number. F Area: • In Table 1 part A: revised references for lines 100(IATL), 101(IATL), 102(DB2), 103(DB2), 111, 112, 161, 210. • In Table 1 part E: revised footnote 4. • In Table 2: deleted notes. • In Table 4: revised references for lines 100(IATL), 101(IATL), 102(DB2), 103(DB2), added lines 109(DB2), 111, 515, 3751, 3752, 3753, 3754, 3755. • In Table 5: revised references for lines 100(IATL), 101(IATL), 102(DB2), 103(DB2), 109(DB2), 111, 112, 161, 210. • In Table 6: revised references for lines 102(DB2), 103(DB2), 111, 112, 161, added line 100 and 101. • In Table 8: revised Tank 8 valve box number. Generated Table 12 for F-area settlement markers. H Area: • In Table 13 part B: revised line 18 • In Table 14: added the condition of Tank 24H upper and lower stuffing box. • In Table 15: revised responsible organization for 242-25H evaporator pot, condenser cell and cell covers, revised responsible organization for concrete encasement Type I lines port ERP 2, ERP 5 and ERP 6, added the condition of the 242-25H separator lift jumper. • In Table 17: revised line 18. • In Table 25: added items 51 & 52. Generated Table 24 for H-area settlement markers.
18	05/16/00	F Area: • In Table 1: revised lines 151(DB3) and 152(DB3). • In Table 3: added visual inspection of above ground transfer line shielding and supports at Tank 8F. • In Table 5: revised leak detection capability for lines 104(DB4), 201, revised lines 151(DB3) and 152(DB3), revised segment number for line 103(DB4). • In Table 6: revised lines 104(DB4), 151(DB3) and 152(DB3). • In Table 9: revised line numbers and isolation valves for transfer lines 151, 103, 1472, 104, 106, and

		105 at FDB4.
17	4/27/00	F Area: • In Table 1 part D: deleted lines 16075, 515 and revised line 103(DB4). • In Table 1 part E: revised title and notes, revised references 3 and 4, added line 16075, added alias numbers for lines 515 and 109(DB2), added jacket and core tests for lines 3751, 3752 and 3753. • In Table 23: added items 45, 46, 47, 48, 49 and 50. H Area: • In Table 12 part D: revised comments and added evaluation for line 1825. • In Table 13: added comments and NCR number for Tank 24H. • In Table 14: removed Tank 24 steam system capped line.
16	4/11/00	F Area: • In Table 1 part E: revised reference 3. H Area: • In Table 12: revised line 104. • In Table 14: added Tank 24 steam system capped line. • In Table 15: revised lines 104, 105, 111 and 112. • In Table 16: revised lines 104, 111, 3062, 3063, 3068, 3069, 3070, and 3071. • In Table 17: revised lines 3062, 3063, 3068, 3069, 3070, and 3071. • In Table 25: added 242-25H GDL and revised footnote 1.
15	3/22/00	F Area: • In Table 1 part D: revised segment number for line 103(DB4). part E: revised segment number for line 103(DB4). • In Table 23: added spray chamber at Tank 8F and FPT-1 mixer system air manifold. H Area: • In Table 12: revised lines P102, P104, P105, P106, P151 and P251. • In Table 13: added two possible leaksites in the wall of Tank 15H. • In Table 15: revised lines P102, P104, P105, P106, P151 and P251. • In Table 16: revised leak detection capability for lines 3070 and 3071, revised lines P102, P104, P105, P106, P151 and P251. • In Table 17: revised drain lines for lines 3068 and 3069, revised lines P102, P104, P105, P106, P151 and P251. • In Table 20: revised transfer lines P102, P104, P105, P106, P151 and P251 at HDB-6.
14	3/8/00	F Area: • In Table 1 part E: revised comments. • In Table 4: added notes for lines 9000, 9002, 9003, 9004 and 9006. • In Table 23: added transfer pump riser on Tank 19F. • In Table 24: added the conditions of Tanks 1F and 19F. H Area: • In Table 23: added 242-25H evaporator jumpers Y555-100-121, Y555-100-140, and Y555-100-124-3. • In Table 24: added the condition of Tank 23H.
13	3/1/00	• In Table 1 part E: added evaluation for lines 16030 and 515, added references for lines 16030, 515, 103(FDB4), added lines 213(DB2), 3751, 3752 and 3753. • In Table 1 part B: revised comments. • In Table 1 part D: added evaluation, references and notes for line 114. • In Table 4: added lines 9, 9000, 9001, 9002, 9003, 9004 and 9006, revised line type, core diameter, jacket diameter, pipe length and references for lines 16030, 16031, 16052, 16075 and 16076. • In Table 23: added valve box LDB-17.
12	2/25/00	• In Table 1 part E: added evaluation for lines 3754, 109(DB2), 3755 and 103(DB4).
11	2/16/00	• In Table 1 part D: revised comments of line 103 and deleted line 109(DB2). • In Table 1 part E: revised comments of line 3755 and corrected segment number of line 109(DB2). • In Table 4: added lines 16030, 16031, 16052, 16075 and 16076. • In Table 5: revised leak detection capabilities of lines 33E, 34E, 35E, 36E, 37E, 38E, 39E, 40E, 42E,

		43E, 44E, 45E, 46E, 47E, 48E and 49E. • In Table 14: added the condition of 242-16H evaporator jumper piping. • In Table 23: added Tank 7F and Tank 8F platforms.
10	1/24/00	• Added the condition of 242-25H separator jumper o-rings and 242-25H evaporator pot into Table 14.
9	11/17/99	• Added part E into Table 1. Deleted lines 3754, 3755 and 16030 in Table 1 part D. Added line 16075 into Table 1 part D. • Added two known leaksites in the wall of Tank 19F into Table 2. • Added Type I and Type IV Tank Risers into Table 25.
8	11/2/99	• Added Tank 24H platform and two switches used to shut down RHLWE feed pump into Table 23.
7	10/20/99	• Revised line 479 and deleted line 552 in Table 15. Added line 577 into Table 16. Revised references of lines 475 and 476 in Table 16. Added flush water isolation valves into Table 20.
6	9/28/99	• Revised Tables 1, 12, 15, 23.
5	9/07/99	• Revised Tables 1, 3, 12, 13, and 23.
4	7/20/99	• Revised Tables 5, 6, 12, 14, 15, 16, 17, and 23.
3	3/25/99	• Complete revision of contents, format and table numbers.
2	12/16/98	• Revised comments in Tables 1, 4 and 5. Increased test interval from 1 year to 2 years for selected transfer lines in Table 5. Added Table 11.
1	11/09/98	• Complete revision of contents and format.
0	7/12/98	• Initial issue for use.

List of Effective Tables

Table #	Rev. #
Cover Sheets	Rev. 45