



Docket No. 50-346

License No. NPF-3

Serial No. 918

March 10, 1983

RICHARD P. CROUSE  
Vice President  
Nuclear  
(419) 259-5221

Director of Nuclear Reactor Regulation  
Attention: Mr. John F. Stolz  
Operating Reactor Branch No. 4  
Division of Operating Reactors  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Stolz:

This letter is in response to the letter dated February 8, 1983 (Log No. 1211) concerning Safety-Related Electrical Equipment for the Davis-Besse Nuclear Power Station Unit No. 1.

This letter and attachments provide the requested justification for continued operation for those items in NRC categories I.E, II.A, and II.B. There are no items in category II.B. Attachment 1 (Table I - TER CATEGORY I.B) provides a listing of all items in category I.B as well as the plans for ensuring qualification for each component. Attachment 2 (Table II - TER CATEGORY II.A) provides a listing of all items in category II.A as well as the plans for ensuring qualification for each component. Attachment 3 consists of the applicable System Component Evaluation Worksheet (SCEW) containing the analytical discussions providing justification for continued operation for items whose justification was not previously submitted. Only revised pages are included.

A review of all of those items in categories I.B. and II.A has confirmed that the justification for continued operation previously submitted is still valid. The previous justifications are reaffirmed.

Items in Tables I and II are placed in the appropriate category i.e., Replacement (Yes/No), Analysis/Test (A/T--), Modification (M/--). The justification column includes the SCEW number containing the justification for continued operation discussion. The column headed Discussion Requested (Yes/--) indicates that we desire a future meeting with the NRC staff to resolve the qualification of the component. Items of a generic nature have a G followed by the generic item number. This indicates that one generic discussion should resolve these items.

Several generic justifications for continued operation statements will be discussed here along with their TER item number. One issue which arose

A048

many times concerns the use of several references for the performance of thermal aging and radiation qualification by materials analysis. This is Generic Discussion Item No. 1. Items which fall under this category contain (G-1) under their Discussion Requested Column. It is felt that the radiation/aging analysis performed is satisfactory and no additional justification is required for these items. No action will be taken for these components until resolution of this issue in future discussions with the NRC. The DOR Guidelines permit qualification by materials analysis and clarification/resolution is requested for these items before further effort is expanded on their qualification.

Generic Discussion item (G-2) TER item numbers 91 and 92 were qualified completely by materials analysis and are felt to require no additional justification. Further clarification/resolution is requested for these items: 10, 17, 18, 19, 25, 26, 27, 115 (2214-152 only).

Many cases exist in the TER review where agreement exists that a component is exempt from qualification from the harsh steam environment. The TER specifies that these items, while exempt from the harsh steam environment, are not exempt from the additional increased radiation which might exist due to POST LOCA recirculating fluids. For all cases where components have been exempted from the harsh steam environment, the 40- year background plus POST LOCA recirculated fluid accident dose radiation value has been used at the radiation specification. In the next complete Equipment Qualification Manual Revision, additional statements will be added to clearly explain that the HELB harsh steam environment, and the increased radiation, are separate effects and both are considered TER items in this category: 2, 4, 5, 7, 8, 9, 10, 14, 17, 20, 24, 25, 26, 27, 30, 32, 33, 34, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 89, 90

Another issue is motor lead splices and motor lubrication. All Class 1E motor lead splices were changed to qualified heat shrink tubing or tape. Refer to generic SCEW sheets in Chapter 21. Motor lubrication is also generic in nature and is discussed in Chapter 21. TER items in this category: 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72

Previously, all cabling was being qualified for inside containment conditions and for submergence. Although it is felt that adequate evidence of the cables qualification has been presented, further research is underway to document the cables ability to withstand submergence.

TER items under this category: 37, 38, 39, 40

Several components which were designated deficient, as we provide the qualification report summaries and not the test report. For the case of the States terminal blocks TER items 101 through 105, the test report has been obtained. For the Stanwick terminal blocks (TER items 106 through 114 and 116 through 119), attempts are ongoing to obtain the required documentation as stated in the TER.



Docket No. 50-346  
License No. NPF-3  
Serial No. 918  
March 10, 1983  
Page 3

Several specific calculations (arrhenius aging) were cited as not available. We were not asked to submit these for review, but they are available if needed.

For the Amphenol containment electrical penetrations, (TER item 210), the equipment is felt to be qualified and no justification is required. Additional research into Amphenol's testing is being performed to further demonstrate qualification for chemical spray and functional operability. The test report states that the test was performed to IEEE standard 317. This information will be incorporated into the appropriate SCEW sheets in the upcoming general manual revision.

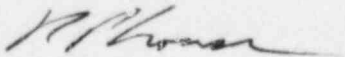
For those items in which the TER stated that there was inadequate similarity to the test report, further references have been added which demonstrate test report applicability for the installed equipment. Items in this category are: 38, 39, 40, 41, 43, 44, 45, 65, 66, 67, 68, 71, 72

Another generic comment was on the exemption of solenoid valves from qualification based on their failures causing them to move to their fail safe positions. Review of the TER will show that the MSIVs and mainstream warm-up isolation valves are scheduled for replacement with qualified equipment.

For items which are not safety-related or have already been replaced by qualified components, no justification is presented. SCEW sheets for qualified replacement components will be submitted in the upcoming manual revision.

As to the deficiencies in Appendix D, FRC's review states that there are no exceptions requiring resolution.

Very truly yours,



RPC:LCS:lah

cc: DB-1 NRC Resident Inspector

attachments (5 copies each)

Table 1

Table 2

Revised SCEW Sheets

TABLE 1 - TER CATEGORY I.B

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
1	221H-259	N	A (C)	--	221H-259A*	Yes (exempt)
6	221H-246	N	A (C)	--	221H-246A*	Yes (exempt)
21	221H-258	N	A (C)	--	221H-258A*	Yes (exempt)
35	302H-012	Y (C)	--	--	--	--
	302H-013	Y (C)	--	--	--	--
	302H-014	Y (C)	--	--	--	--
	302H-015	Y (C)	--	--	--	--
	302H-016	Y (C)	--	--	--	--
	302H-017	Y (C)	--	--	--	--
36	302H-006	Y (C)	--	--	--	--
	302H-007	Y (C)	--	--	--	--
	302H-008	Y (C)	--	--	--	--
	302H-009	Y (C)	--	--	--	--
	302H-010	Y (C)	--	--	--	--
	302H-011	Y (C)	--	--	--	--
48	218H-008	Y	--	--	218H-008A	Yes
	218H-009	Y	--	--	218H-009A	Yes
	218H-010	Y	--	--	218H-010A	Yes
	218H-011	Y	--	--	218H-011A	Yes
	218H-004	Y	--	--	218H-004A	Yes
	218H-005	Y	--	--	218H-005A	Yes
	218H-006	Y	--	--	218H-006A	Yes
	218H-007	Y	--	--	218H-007A	Yes
49	204H-005	Y	--	--	204H-005A	--
	204H-006	Y	--	--	204H-006A	--
	204H-007	Y	--	--	204H-007A	--
	204H-008	Y	--	--	204H-008A	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 1 - TER CATEGORY I.B

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
50	224H-004	Y	--	--	224H-004A	--
51	220H-007 220H-011	N N	A A	-- --	220H-007A* 220H-011A*	Yes Yes
54	223H-017 223H-018	Y Y	-- --	-- --	223H-017A* 223H-018A*	-- --
55	223H-021 223H-022	Y (C) Y (C)	-- --	-- --	-- --	-- --
56	223H-019 223H-020	Y (C) Y (C)	-- --	-- --	-- --	-- --
73	211H-007	Y	--	--	211H-007A*	--
74	211H-006	Y	--	--	211H-006A*	--
75	211H-013	Y	--	--	211H-013A*	--
76	211H-012	Y	--	--	211H-012A*	--
77	222H-017	N	A (O)	M (O)	222H-017A*	--
82	211H-014	Y	--	--	211H-014A*	--
83	211H-015	Y	--	--	211H-015A*	--
87	210H-020	Y	--	--	210H-020A*	--
96	221H-317	Y	--	--	221H-317A*	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 1 - TER CATEGORY I,B

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
97	221H-315	Y	--	--	221H-315A*	--
98	221H-316	Y	--	--	221H-316A*	--
	221H-319	Y	--	--	221H-319A*	--
168	224H-013	Deleted - Not nuclear safety-related				
169	225H-005	Y	--	--	225H-005A*	--
177	210H-021	Y	--	--	210H-021A*	--
	210H-022	Y	--	--	210H-022A*	--
183	210H-023	Y	--	--	210H-023A*	--
	210H-024	Y	--	--	210H-024A*	--
	210H-025	Y	--	--	210H-025A*	--
	210H-026	Y	--	--	210H-026A*	--
187	216H-054	Y	--	--	216H-054A*	--
189	216H-039	Y (C)	--	--	--	--
	216H-045	Y (C)	--	--	--	--
191	208H-029	Y	--	--	208H-029A*	--
	208H-030	Y	--	--	208H-030A*	--
193	208H-031	Y	--	--	208H-031A*	--
	208H-032	Y	--	--	208H-032A*	--
198	205H-022	Y	--	--	205H-022A*	--
	205H-023	Y	--	--	205H-023A*	--
199	205H-021	Y	--	--	205H-021A*	--

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

TABLE 1 - TER CATEGORY I.B

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
200	205H-019	Y	--	--	205H-019A*	--
	205H-020	Y	--	--	205H-020A*	--
202	222H-022	N	--	Y (O)	222H-022A*	Yes
203	223H-024	N	A (O)	--	223H-024A*	--
204	223H-023	Y (C)	--	--	--	--
205	221H-027	N	T (O)	--	221H-027A*	--
206	221H-022	N	T (O)	--	221H-022A*	--
	221H-025	N	T (O)	--	221H-025A*	--
	221H-028	N	T (C)	--	221H-028A*	--
207	221H-023	N	T (O)	--	221H-023A*	--
	221H-024	N	T (O)	--	221H-024A*	--
	221H-035	N	T (O)	--	221H-035A*	--
208	221H-026	N	T (O)	--	221H-026A*	--
	221H-036	N	T (O)	--	221H-036A*	--

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing



TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
2	221H-179	N	--	--	221H-179A	Yes (G-1)
4	221H-180	N	--	--	221H-180A	Yes (G-1)
	221H-181	N	--	--	221H-181A	Yes (G-1)
5	221H-241	N	--	--	221H-241A	Yes (G-1)
	221H-242	N	--	--	221H-242A	Yes (G-1)
7	221H-244	N	--	--	221H-244A	Yes (G-1)
	221H-245	N	--	--	221H-245A	Yes (G-1)
	221H-256	N	--	--	221H-256A	Yes (G-1)
8	221H-177	N	--	--	221H-177A	Yes (G-1)
	221H-178	N	--	--	221H-178A	Yes (G-1)
	221H-191	N	--	--	221H-191A	Yes (G-1)
9	221H-216	N	--	--	221H-216A	Yes (G-1)
	221H-222	N	--	--	221H-222A	Yes (G-1)
	221H-224	N	--	--	221H-224A	Yes (G-1)
10	221H-250	N	--	--	221H-250A	Yes
	221H-261	N	--	--	221H-261A	Yes
	221H-237	N	--	--	221H-237A	Yes
	221H-236	N	--	--	221H-236A	Yes
	221H-208	N	--	--	221H-208A	Yes
	221H-211	N	--	--	221H-211A	Yes
	221H-212	N	--	--	221H-212A	Yes
14	221H-214	N	--	--	221H-214A	Yes (G-1)
15	221H-188	Deleted - Replaced by other Monitoring System Kaman Sciences.				--
16	221H-235	Deleted - Replaced by other Monitoring System Kaman Sciences.				--

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
17	221H-200	N	--	--	221H-200A	Yes
	221H-227	N	--	--	221H-227A	Yes
18	221H-194	N	--	--	221H-194A	Yes
	221H-195	N	--	--	221H-195A	Yes
19	221H-192	N	--	--	221H-192A	Yes
	221H-193	N	--	--	221H-193A	Yes
20	221H-199	N	--	--	221H-199A	Yes
	221H-226	N	--	--	221H-226A	Yes
23	221H-189	Deleted - Replaced by other Monitoring System Kaman Sciences.				--
24	221H-201	N	--	--	221H-201A	Yes (G-1)
	221H-202	N	--	--	221H-202A	Yes (G-1)
	221H-203	N	--	--	221H-203A	Yes (G-1)
25	221H-183	N	--	--	221H-183A	Yes
26	221H-234	Deleted - Replaced by other Monitoring System Kaman Sciences.				--
	221H-182	N	--	--	221H-182A	Yes
27	221H-238	N	--	--	221H-238A	Yes
	221H-251	N	--	--	221H-251A	Yes
30	221H-217	N	--	--	221H-217A	Yes (G-1)
	221H-232	N	--	--	221H-232A	Yes (G-1)
32	221H-219	N	--	--	221H-219A	Yes (G-1)

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
33	221H-217	N	--	--	221H-217A	Yes (G-1)
34	221H-219	N	--	--	221H-219A	Yes (G-1)
	221H-240	N	--	--	221H-240A	Yes (G-1)
	221H-239	N	--	--	221H-239A	Yes (G-1)
	221H-204	N	--	--	221H-204A	Yes (G-1)
	221H-205	N	--	--	221H-205A	Yes (G-1)
	221H-206	N	--	--	221H-206A	Yes (G-1)
	221H-207	N	--	--	221H-207A	Yes (G-1)
	221H-233	N	--	--	221H-233A	Yes (G-1)
	221H-231	N	--	--	221H-231A	Yes (G-1)
	221H-230	N	--	--	221H-230A	Yes (G-1)
	221H-229	N	--	--	221H-229A	Yes (G-1)
	221H-225	N	--	--	221H-225A	Yes (G-1)
37	221H-171	N	A (O)	--	221H-171A	Yes
	221H-172	N	A (O)	--	221H-172A	Yes
	221H-173	N	A (O)	--	221H-173A	Yes
	221H-174	N	A (O)	--	221H-174A	Yes
	221H-175	N	A (O)	--	221H-175A	Yes
38	221H-012	N	A (O)	--	221H-012A	--
	221H-013	N	A (O)	--	221H-013A	--
	221H-020	N	A (O)	--	221H-020A	--
39	221H-037	N	A (O)	--	221H-037A	--
	221H-038	N	A (O)	--	221H-038A	--
	221H-039	N	A (O)	--	221H-039A	--
	221H-040	N	A (O)	--	221H-040A	--
	221H-041	N	A (O)	--	221H-041A	--
	221H-042	N	A (O)	--	221H-042A	--
	221H-043	N	A (O)	--	221H-043A	--
	221H-044	N	A (O)	--	221H-044A	--
	221H-045	N	A (O)	--	221H-045A	--
	221H-046	N	A (O)	--	221H-046A	--
	221H-047	N	A (O)	--	221H-047A	--
	221H-048	N	A (O)	--	221H-048A	--
	221H-049	N	A (O)	--	221H-049A	--
	221H-050	N	A (O)	--	221H-050A	--
	221H-065	N	A (O)	--	221H-065A	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
39 (cont.)	221H-066	N	A (O)	--	221H-066A	--
	221H-067	N	A (O)	--	221H-067A	--
	221H-068	N	A (O)	--	221H-068A	--
	221H-069	N	A (O)	--	221H-069A	--
40	221H-014	N	A (O)	--	221H-014A	Yes
	221H-015	N	A (O)	--	221H-015A	Yes
	221H-016	N	A (O)	--	221H-016A	Yes
	221H-017	N	A (O)	--	221H-017A	Yes
	221H-018	N	A (O)	--	221H-018A	Yes
	221H-021	N	A (O)	--	221H-021A	Yes
	221H-029	N	A (O)	--	221H-029A	Yes
	221H-030	N	A (O)	--	221H-030A	Yes
	221H-031	N	A (O)	--	221H-031A	Yes
	221H-032	N	A (O)	--	221H-032A	Yes
	221H-033	N	A (O)	--	221H-033A	Yes
	221H-034	N	A (O)	--	221H-034A	Yes
41	219H-007	N	A (O)	--	219H-007A	Yes (G-1)
	219H-008	N	A (O)	--	219H-008A	Yes (G-1)
	219H-009	N	A (O)	--	219H-009A	Yes (G-1)
	219H-010	N	A (O)	--	219H-010A	Yes (G-1)
43	219H-006	N	A (O)	--	219H-006A	Yes (G-1)
44	219H-005	N	A (O)	--	219H-005A	Yes (G-1)
45	219H-004	N	--	--	219H-004A	Yes (G-1)
59	205H-005	N	A (O)	--	205H-005A	Yes (G-1)
60	205H-006	N	A (O)	--	205H-006A	Yes (G-1)
	205H-007	N	A (O)	--	205H-007A	Yes (G-1)
61	205H-008	N	A (O)	--	205H-008A	Yes (G-1)
	205H-009	N	A (O)	--	205H-009A	Yes (G-1)

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
62	206H-004	N	A (O)	--	206H-004A	Yes (G-1)
63	214H-005	N	--	--	214H-005A	Yes (G-1)
64	214H-004	N	--	--	214H-004A	Yes (G-1)
65	210H-007	N	A (O)	--	210H-007A	Yes (G-1)
66	210H-006	N	A (O)	--	210H-006A	Yes (G-1)
67	211H-005	N	A (O)	--	211H-005A*	Yes (G-1)
68	211H-004	N	A (O)	--	211H-004A*	Yes (G-1)
69	215H-008	N	--	--	215H-008A	Yes (G-1)
70	215H-007	N	--	--	215H-007A	Yes (G-1)
71	217H-004	N	--	--	217H-004A	Yes (G-1)
	217H-005	N	--	--	217H-005A	Yes (G-1)
	217H-006	N	--	--	217H-006A	Yes (G-1)
72	215H-005	N	--	--	215H-005A	Yes (G-1)
	215H-006	N	--	--	215H-006A	Yes (G-1)
85	218H-013	N	--	--	218H-013A	Yes (G-1)
88	220H-023	N	--	--	220H-023A	Yes (G-1)
	220H-030	N	--	--	220H-030A	Yes (G-1)
89	223H-016	N	--	--	223H-016A	Yes (G-2)

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing



TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
90	223H-015	N	--	--	223H-015A	Yes (G-2)
91	220H-033	N	--	--	220H-033A	Yes (G-2)
	220H-034	N	--	--	220H-034A	Yes (G-2)
	220H-037	N	--	--	220H-037A	Yes (G-2)
	220H-038	N	--	--	220H-038A	Yes (G-2)
	220H-039	N	--	--	220H-039A	Yes (G-2)
	220H-040	N	--	--	220H-040A	Yes (G-2)
	220H-019	N	--	--	220H-019A	Yes (G-2)
	220H-020	N	--	--	220H-020A	Yes (G-2)
	220H-024	N	--	--	220H-024A	Yes (G-2)
	220H-029	N	--	--	220H-029A	Yes (G-2)
92	220H-031	N	--	--	220H-031A	Yes (G-2)
	220H-032	N	--	--	220H-032A	Yes (G-2)
	220H-035	N	--	--	220H-035A	Yes (G-2)
	220H-036	N	--	--	220H-036A	Yes (G-2)
	220H-017	N	--	--	220H-017A	Yes (G-2)
	220H-018	N	--	--	220H-018A	Yes (G-2)
	220H-021	N	--	--	220H-021A	Yes (G-2)
	220H-022	N	--	--	220H-022A	Yes (G-2)
	220H-025	N	--	--	220H-025A	Yes (G-2)
	220H-026	N	--	--	220H-026A	Yes (G-2)
	220H-027	N	--	--	220H-027A	Yes (G-2)
	220H-028	N	--	--	220H-028A	Yes (G-2)
101	221H-061	N	--	--	220H-061A	--
102	221H-321	N	--	--	220H-321A	--
103	221H-329	N	--	--	220H-329A	--
104	221H-328	N	--	--	221H-328A	--
	221H-054	N	--	--	221H-054A	--
	221H-053	N	--	--	221H-053A	--
	221H-052	N	--	--	221H-052A	--
	221H-055	N	--	--	221H-055A	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
104 (cont.)	221H-056	N	--	--	221H-056A	--
	221H-057	N	--	--	221H-057A	--
	221H-063	N	--	--	221H-063A	--
105	221H-323	N	--	--	221H-323A	--
	221H-324	N	--	--	221H-324A	--
	221H-325	N	--	--	221H-325A	--
	221H-326	N	--	--	221H-326A	--
	221H-327	N	--	--	221H-327A	--
106	221H-086	N	--	--	221H-086A	--
	221H-087	N	--	--	221H-087A	--
	221H-164	N	--	--	221H-164A	--
	221H-165	N	--	--	221H-165A	--
	221H-166	N	--	--	221H-166A	--
107	221H-158	N	--	--	221H-158A	--
	221H-159	N	--	--	221H-159A	--
108	221H-115	N	--	--	221H-115A	--
	221H-088	N	--	--	221H-088A	--
	221H-089	N	--	--	221H-089A	--
	221H-167	N	--	--	221H-167A	--
	221H-168	N	--	--	221H-168A	--
	221H-169	N	--	--	221H-169A	--
109	221H-081	N	--	--	221H-081A	--
	221H-082	N	--	--	221H-082A	--
	221H-101	N	--	--	221H-101A	--
	221H-103	N	--	--	221H-103A	--
	221H-107	N	--	--	221H-107A	--
	221H-156	N	--	--	221H-156A	--
110	221H-070	N	--	--	221H-070A	--
	221H-071	N	--	--	221H-071A	--
	221H-072	N	--	--	221H-072A	--
	221H-173	N	--	--	221H-073A	--
	221H-119	N	--	--	221H-119A	--

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
110 (cont.)	221H-120	N	--	--	221H-120A	--
	221H-154	N	--	--	221H-154A	--
	221H-157	N	--	--	221H-157A	--
111	221H-123	N	--	--	221H-123A	--
	221H-140	N	--	--	221H-140A	--
	221H-145	N	--	--	221H-145A	--
	221H-146	N	--	--	221H-146A	--
	221H-147	N	--	--	221H-147A	--
	221H-149	N	--	--	221H-149A	--
	221H-150	N	--	--	221H-150A	--
112	221H-094	N	--	--	221H-094A	--
	221H-099	N	--	--	221H-099A	--
	221H-100	N	--	--	221H-100A	--
	221H-106	N	--	--	221H-106A	--
	221H-111	N	--	--	221H-111A	--
	221H-121	N	--	--	221H-121A	--
	221H-122	N	--	--	221H-122A	--
	221H-139	N	--	--	221H-139A	--
	221H-143	N	--	--	221H-143A	--
	221H-144	N	--	--	221H-144A	--
	221H-148	N	--	--	221H-148A	--
113	221H-125	N	--	--	221H-125A	--
	221H-126	N	--	--	221H-126A	--
	221H-162	N	--	--	221H-162A	--
	221H-163	N	--	--	221H-163A	--
114	221H-078	N	--	--	221H-078A	--
	221H-079	N	--	--	221H-079A	--
	221H-080	N	--	--	221H-080A	--
	221H-090	N	--	--	221H-090A	--
	221H-091	N	--	--	221H-091A	--
	221H-092	N	--	--	221H-092A	--
	221H-093	N	--	--	221H-093A	--
	221H-095	N	--	--	221H-095A	--
	221H-096	N	--	--	221H-096A	--
	221H-102	N	--	--	221H-102A	--
	221H-104	N	--	--	221H-104A	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
114 (cont.)	221H-105	N	--	--	221H-105A	--
	221H-109	N	--	--	221H-109A	--
	221H-110	N	--	--	221H-110A	--
	221H-114	N	--	--	221H-114A	--
	221H-117	N	--	--	221H-117A	--
	221H-118	N	--	--	221H-118A	--
	221H-124	N	--	--	221H-124A	--
	221H-129	N	--	--	221H-129A	--
	221H-138	N	--	--	221H-138A	--
	221H-153	N	--	--	221H-153A	--
	221H-155	N	--	--	221H-155A	--
116	221H-133	N	--	--	221H-133A	--
	221H-134	N	--	--	221H-134A	--
	221H-137	N	--	--	221H-137A	--
	221H-141	N	--	--	221H-141A	--
	221H-151	N	--	--	221H-151A	--
117	221H-084	N	--	--	221H-084A	--
	221H-085	N	--	--	221H-085A	--
	221H-097	N	--	--	221H-097A	--
	221H-098	N	--	--	221H-098A	--
	221H-113	N	--	--	221H-113A	--
	221H-132	N	--	--	221H-132A	--
118	221H-112	N	--	--	221H-112A	--
	221H-130	N	--	--	221H-130A	--
	221H-131	N	--	--	221H-131A	--
	221H-135	N	--	--	221H-135A	--
	221H-136	N	--	--	221H-136A	--
	221H-142	N	--	--	221H-142A	--
119	221H-074	N	--	--	221H-074A	--
	221H-075	N	--	--	221H-075A	--
	221H-076	N	--	--	221H-076A	--
	221H-160	N	--	--	221H-160A	--
	221H-161	N	--	--	221H-161A	--
124	204H-010	N	--	M (O)	204H-010A*	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
128	204H-012	N	--	M (0)	204H-012A*	--
134	210H-015	N	--	M (0)	210H-015A*	--
136	210H-014	N	--	M (0)	210H-014A*	--
138	210H-011	N	--	M (0)	210H-011A*	--
	210H-010	N	--	M (0)	210H-010A*	--
151	204H-011	N	--	M (0)	204H-011A*	--
165	204H-009	N	--	M (0)	204H-009A*	--
181	208H-026	Y	--	--	208H-026A	--
182	208H-025	Y	--	--	208H-025A	--
184	208H-020	Y	--	--	208H-020A	--
	208H-021	Y	--	--	208H-021A	--
	208H-022	Y	--	--	208H-022A	--
	208H-023	Y	--	--	208H-023A	--
	208H-024	Y	--	--	208H-024A	--
185	208H-014	Y	--	--	208H-014A	--
	208H-015	Y	--	--	208H-015A	--
	208H-016	Y	--	--	208H-016A	--
	208H-017	Y	--	--	208H-017A	--
	208H-018	Y	--	--	208H-018A	--
210	221H-267	N	--	--	221H-267A	Yes
	221H-268	N	--	--	221H-268A	Yes
	221H-269	N	--	--	221H-269A	Yes
	221H-270	N	--	--	221H-270A	Yes
	221H-271	N	--	--	221H-271A	Yes

\* Justification acceptable in TER

(C) Completed

(O) Ongoing



TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
210 (cont.)	221H-272	N	--	--	221H-272A	Yes (G-1)
	221H-273	N	--	--	221H-273A	Yes (G-1)
	221H-274	N	--	--	221H-274A	Yes (G-1)
	221H-275	N	--	--	221H-275A	Yes (G-1)
	221H-276	N	--	--	221H-276A	Yes (G-1)
	221H-277	N	--	--	221H-277A	Yes (G-1)
	221H-278	N	--	--	221H-278A	Yes (G-1)
	221H-279	N	--	--	221H-279A	Yes (G-1)
	221H-280	N	--	--	221H-280A	Yes (G-1)
	221H-281	N	--	--	221H-281A	Yes (G-1)
	221H-282	N	--	--	221H-282A	Yes (G-1)
	221H-283	N	--	--	221H-283A	Yes (G-1)
	221H-284	N	--	--	221H-284A	Yes (G-1)
212	221H-243	N	--	--	221H-243A	Yes (G-1)
213	221H-190	N	--	--	221H-190A	Yes (G-1)
214	221H-257	N	--	--	221H-257A	Yes (G-1)

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 1 - TER CATEGORY I.B

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
1	221H-259	N	A (C)	--	221H-259A*	Yes (exempt)
6	221H-246	N	A (C)	--	221H-246A*	Yes (exempt)
21	221H-258	N	A (C)	--	221H-258A*	Yes (exempt)
35	302H-012	Y (C)	--	--	--	--
	302H-013	Y (C)	--	--	--	--
	302H-014	Y (C)	--	--	--	--
	302H-015	Y (C)	--	--	--	--
	302H-016	Y (C)	--	--	--	--
	302H-017	Y (C)	--	--	--	--
36	302H-006	Y (C)	--	--	--	--
	302H-007	Y (C)	--	--	--	--
	302H-008	Y (C)	--	--	--	--
	302H-009	Y (C)	--	--	--	--
	302H-010	Y (C)	--	--	--	--
	302H-011	Y (C)	--	--	--	--
48	218H-008	Y	--	--	218H-008A	Yes
	218H-009	Y	--	--	218H-009A	Yes
	218H-010	Y	--	--	218H-010A	Yes
	218H-011	Y	--	--	218H-011A	Yes
	218H-004	Y	--	--	218H-004A	Yes
	218H-005	Y	--	--	218H-005A	Yes
	218H-006	Y	--	--	218H-006A	Yes
	218H-007	Y	--	--	218H-007A	Yes
49	204H-005	Y	--	--	204H-005A	--
	204H-006	Y	--	--	204H-006A	--
	204H-007	Y	--	--	204H-007A	--
	204H-008	Y	--	--	204H-008A	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 1 - TER CATEGORY I.B

TER Number	SCEw Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
50	224H-004	Y	--	--	224H-004A	--
51	220H-007 220H-011	N N	A A	-- --	220H-007A* 220H-011A*	Yes Yes
54	223H-017 223H-018	Y Y	-- --	-- --	223H-017A* 223H-018A*	-- --
55	223H-021 223H-022	Y (C) Y (C)	-- --	-- --	-- --	-- --
56	223H-019 223H-020	Y (C) Y (C)	-- --	-- --	-- --	-- --
73	211H-007	Y	--	--	211H-007A*	--
74	211H-006	Y	--	--	211H-006A*	--
75	211H-013	Y	--	--	211H-013A*	--
76	211H-012	Y	--	--	211H-012A*	--
77	222H-017	N	A (O)	M (O)	222H-017A*	--
82	211H-014	Y	--	--	211H-014A*	--
83	211H-015	Y	--	--	211H-015A*	--
87	210H-020	Y	--	--	210H-020A*	--
96	221H-317	Y	--	--	221H-317A*	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 1 - TER CATEGORY I.B

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
97	221H-315	Y	--	--	221H-315A*	--
98	221H-316 221H-319	Y Y	-- --	-- --	221H-316A* 221H-319A*	-- --
168	224H-013	Deleted - Not nuclear safety-related				
169	225H-005	Y	--	--	225H-005A*	--
177	210H-021 210H-022	Y Y	-- --	-- --	210H-021A* 210H-022A*	-- --
183	210H-023 210H-024 210H-025 210H-026	Y Y Y Y	-- -- -- --	-- -- -- --	210H-023A* 210H-024A* 210H-025A* 210H-026A*	-- -- -- --
187	216H-054	Y	--	--	216H-054A*	--
189	216H-039 216H-045	Y (C) Y (C)	-- --	-- --	-- --	-- --
191	208H-029 208H-030	Y Y	-- --	-- --	208H-029A* 208H-030A*	-- --
193	208H-031 208H-032	Y Y	-- --	-- --	208H-031A* 208H-032A*	-- --
198	205H-022 205H-023	Y Y	-- --	-- --	205H-022A* 205H-023A*	-- --
199	205H-021	Y	--	--	205H-021A*	--

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

TABLE 1 - TER CATEGORY I.B

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
200	205H-019	Y	--	--	205H-019A*	--
	205H-020	Y	--		205H-020A*	--
202	222H-022	N	--	Y (O)	222H-022A*	Yes
203	223H-024	N	A (O)	--	223H-024A*	--
204	223H-023	Y (C)	--	--	--	--
205	221H-027	N	T (O)	--	221H-027A*	--
206	221H-022	N	T (O)	--	221H-022A*	--
	221H-025	N	T (O)	--	221H-025A*	--
	221H-028	N	T (O)	--	221H-028A*	--
207	221H-023	N	T (O)	--	221H-023A*	--
	221H-024	N	T (O)	--	221H-024A*	--
	221H-035	N	T (O)	--	221H-035A*	--
208	221H-026	N	T (O)	--	221H-026A*	--
	221H-036	N	T (O)	--	221H-036A*	--

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing



TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
2	221H-179	N	--	--	221H-179A	Yes (G-1)
4	221H-180	N	--	--	221H-180A	Yes (G-1)
	221H-181	N	--	--	221H-181A	Yes (G-1)
5	221H-241	N	--	--	221H-241A	Yes (G-1)
	221H-242	N	--	--	221H-242A	Yes (G-1)
7	221H-244	N	--	--	221H-244A	Yes (G-1)
	221H-245	N	--	--	221H-245A	Yes (G-1)
	221H-256	N	--	--	221H-256A	Yes (G-1)
8	221H-177	N	--	--	221H-177A	Yes (G-1)
	221H-178	N	--	--	221H-178A	Yes (G-1)
	221H-191	N	--	--	221H-191A	Yes (G-1)
9	221H-216	N	--	--	221H-216A	Yes (G-1)
	221H-222	N	--	--	221H-222A	Yes (G-1)
	221H-224	N	--	--	221H-224A	Yes (G-1)
10	221H-250	N	--	--	221H-250A	Yes
	221H-261	N	--	--	221H-261A	Yes
	221H-237	N	--	--	221H-237A	Yes
	221H-236	N	--	--	221H-236A	Yes
	221H-208	N	--	--	221H-208A	Yes
	221H-211	N	--	--	221H-211A	Yes
	221H-212	N	--	--	221H-212A	Yes
14	221H-214	N	--	--	221H-214A	Yes (G-1)
15	221H-188	Deleted - Replaced by other Monitoring System Kaman Sciences.				--
16	221H-235	Deleted - Replaced by other Monitoring System Kaman Sciences.				--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
17	221H-200	N	--	--	221H-200A	Yes
	221H-227	N	--	--	221H-227A	Yes
18	221H-194	N	--	--	221H-194A	Yes
	221H-195	N	--	--	221H-195A	Yes
19	221H-192	N	--	--	221H-192A	Yes
	221H-193	N	--	--	221H-193A	Yes
20	221H-199	N	--	--	221H-199A	Yes
	221H-226	N	--	--	221H-226A	Yes
23	221H-189	Deleted - Replaced by other Monitoring System Kaman Sciences.				--
24	221H-201	N	--	--	221H-201A	Yes (G-1)
	221H-202	N	--	--	221H-202A	Yes (G-1)
	221H-203	N	--	--	221H-203A	Yes (G-1)
25	221H-183	N	--	--	221H-183A	Yes
26	221H-234	Deleted - Replaced by other Monitoring System Kaman Sciences.				--
	221H-182	N	--	--	221H-182A	Yes
27	221H-238	N	--	--	221H-238A	Yes
	221H-251	N	--	--	221H-251A	Yes
30	221H-217	N	--	--	221H-217A	Yes (G-1)
	221H-232	N	--	--	221H-232A	Yes (G-1)
32	221H-219	N	--	--	221H-219A	Yes (G-1)

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
33	221H-217	N	--	--	221H-217A	Yes (G-1)
34	221H-219	N	--	--	221H-219A	Yes (G-1)
	221H-240	N	--	--	221H-240A	Yes (G-1)
	221H-239	N	--	--	221H-239A	Yes (G-1)
	221H-204	N	--	--	221H-204A	Yes (G-1)
	221H-205	N	--	--	221H-205A	Yes (G-1)
	221H-206	N	--	--	221H-206A	Yes (G-1)
	221H-207	N	--	--	221H-207A	Yes (G-1)
	221H-233	N	--	--	221H-233A	Yes (G-1)
	221H-231	N	--	--	221H-231A	Yes (G-1)
	221H-230	N	--	--	221H-230A	Yes (G-1)
	221H-229	N	--	--	221H-229A	Yes (G-1)
	221H-225	N	--	--	221H-225A	Yes (G-1)
37	221H-171	N	A (O)	--	221H-171A	Yes
	221H-172	N	A (O)	--	221H-172A	Yes
	221H-173	N	A (O)	--	221H-173A	Yes
	221H-174	N	A (O)	--	221H-174A	Yes
	221H-175	N	A (O)	--	221H-175A	Yes
38	221H-012	N	A (O)	--	221H-012A	--
	221H-013	N	A (O)	--	221H-013A	--
	221H-020	N	A (O)	--	221H-020A	--
39	221H-037	N	A (O)	--	221H-037A	--
	221H-038	N	A (O)	--	221H-038A	--
	221H-039	N	A (O)	--	221H-039A	--
	221H-040	N	A (O)	--	221H-040A	--
	221H-041	N	A (O)	--	221H-041A	--
	221H-042	N	A (O)	--	221H-042A	--
	221H-043	N	A (O)	--	221H-043A	--
	221H-044	N	A (O)	--	221H-044A	--
	221H-045	N	A (O)	--	221H-045A	--
	221H-046	N	A (O)	--	221H-046A	--
	221H-047	N	A (O)	--	221H-047A	--
	221H-048	N	A (O)	--	221H-048A	--
	221H-049	N	A (O)	--	221H-049A	--
	221H-050	N	A (O)	--	221H-050A	--
	221H-065	N	A (O)	--	221H-065A	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
39 (cont.)	221H-066	N	A (O)	--	221H-066A	--
	221H-067	N	A (O)	--	221H-067A	--
	221H-068	N	A (O)	--	221H-068A	--
	221H-069	N	A (O)	--	221H-069A	--
40	221H-014	N	A (O)	--	221H-014A	Yes
	221H-015	N	A (O)	--	221H-015A	Yes
	221H-016	N	A (O)	--	221H-016A	Yes
	221H-017	N	A (O)	--	221H-017A	Yes
	221H-018	N	A (O)	--	221H-018A	Yes
	221H-021	N	A (O)	--	221H-021A	Yes
	221H-029	N	A (O)	--	221H-029A	Yes
	221H-030	N	A (O)	--	221H-030A	Yes
	221H-031	N	A (O)	--	221H-031A	Yes
	221H-032	N	A (O)	--	221H-032A	Yes
	221H-033	N	A (O)	--	221H-033A	Yes
	221H-034	N	A (O)	--	221H-034A	Yes
41	219H-007	N	A (O)	--	219H-007A	Yes (G-1)
	219H-008	N	A (O)	--	219H-008A	Yes (G-1)
	219H-009	N	A (O)	--	219H-009A	Yes (G-1)
	219H-010	N	A (O)	--	219H-010A	Yes (G-1)
43	219H-006	N	A (O)	--	219H-006A	Yes (G-1)
44	219H-005	N	A (O)	--	219H-005A	Yes (G-1)
45	219H-004	N	--	--	219H-004A	Yes (G-1)
59	205H-005	N	A (O)	--	205H-005A	Yes (G-1)
60	205H-006	N	A (O)	--	205H-006A	Yes (G-1)
	205H-007	N	A (O)	--	205H-007A	Yes (G-1)
61	205H-008	N	A (O)	--	205H-008A	Yes (G-1)
	205H-009	N	A (O)	--	205H-009A	Yes (G-1)

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

TABLE 2 - TER CATEGORY 11.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
62	206H-004	N	A (O)	--	206H-004A	Yes (G-1)
63	214H-005	N	--	--	214H-005A	Yes (G-1)
64	214H-004	N	--	--	214H-004A	Yes (G-1)
65	210H-007	N	A (O)	--	210H-007A	Yes (G-1)
66	210H-006	N	A (O)	--	210H-006A	Yes (G-1)
67	211H-005	N	A (O)	--	211H-005A*	Yes (G-1)
68	211H-004	N	A (O)	--	211H-004A*	Yes (G-1)
69	215H-008	N	--	--	215H-008A	Yes (G-1)
70	215H-007	N	--	--	215H-007A	Yes (G-1)
71	217H-004	N	--	--	217H-004A	Yes (G-1)
	217H-005	N	--	--	217H-005A	Yes (G-1)
	217H-006	N	--	--	217H-006A	Yes (G-1)
72	215H-005	N	--	--	215H-005A	Yes (G-1)
	215H-006	N	--	--	215H-006A	Yes (G-1)
85	218H-013	N	--	--	218H-013A	Yes (G-1)
88	220H-023	N	--	--	220H-023A	Yes (G-2)
	220H-030	N	--	--	220H-030A	Yes (G-2)
89	223H-016	N	--	--	223H-016A	Yes (G-1)

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing



TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
90	223H-015	N	--	--	223H-015A	Yes (G-1)
91	220H-033	N	--	--	220H-033A	Yes (G-2)
	220H-034	N	--	--	220H-034A	Yes (G-2)
	220H-037	N	--	--	220H-037A	Yes (G-2)
	220H-038	N	--	--	220H-038A	Yes (G-2)
	220H-039	N	--	--	220H-039A	Yes (G-2)
	220H-040	N	--	--	220H-040A	Yes (G-2)
	220H-019	N	--	--	220H-019A	Yes (G-2)
	220H-020	N	--	--	220H-020A	Yes (G-2)
	220H-024	N	--	--	220H-024A	Yes (G-2)
92	220H-029	N	--	--	220H-029A	Yes (G-2)
	220H-031	N	--	--	220H-031A	Yes (G-2)
	220H-032	N	--	--	220H-032A	Yes (G-2)
	220H-035	N	--	--	220H-035A	Yes (G-2)
	220H-036	N	--	--	220H-036A	Yes (G-2)
	220H-017	N	--	--	220H-017A	Yes (G-2)
	220H-018	N	--	--	220H-018A	Yes (G-2)
	220H-021	N	--	--	220H-021A	Yes (G-2)
	220H-022	N	--	--	220H-022A	Yes (G-2)
	220H-025	N	--	--	220H-025A	Yes (G-2)
	220H-026	N	--	--	220H-026A	Yes (G-2)
	220H-027	N	--	--	220H-027A	Yes (G-2)
	220H-028	N	--	--	220H-028A	Yes (G-2)
101	221H-061	N	--	--	220H-061A	--
102	221H-321	N	--	--	220H-321A	--
103	221H-329	N	--	--	220H-329A	--
104	221H-328	N	--	--	221H-328A	--
	221H-054	N	--	--	221H-054A	--
	221H-053	N	--	--	221H-053A	--
	221H-052	N	--	--	221H-052A	--
	221H-055	N	--	--	221H-055A	--

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
104 (cont.)	221H-056	N	--	--	221H-056A	--
	221H-057	N	--	--	221H-057A	--
	221H-063	N	--	--	221H-063A	--
105	221H-323	N	--	--	221H-323A	--
	221H-324	N	--	--	221H-324A	--
	221H-325	N	--	--	221H-325A	--
	221H-326	N	--	--	221H-326A	--
	221H-327	N	--	--	221H-327A	--
106	221H-086	N	--	--	221H-086A	--
	221H-087	N	--	--	221H-087A	--
	221H-164	N	--	--	221H-164A	--
	221H-165	N	--	--	221H-165A	--
	221H-166	N	--	--	221H-166A	--
107	221H-153	N	--	--	221H-158A	--
	221H-159	N	--	--	221H-159A	--
108	221H-115	N	--	--	221H-115A	--
	221H-088	N	--	--	221H-088A	--
	221H-089	N	--	--	221H-089A	--
	221H-167	N	--	--	221H-167A	--
	221H-168	N	--	--	221H-168A	--
	221H-169	N	--	--	221H-169A	--
109	221H-081	N	--	--	221H-081A	--
	221H-082	N	--	--	221H-082A	--
	221H-101	N	--	--	221H-101A	--
	221H-103	N	--	--	221H-103A	--
	221H-107	N	--	--	221H-107A	--
	221H-156	N	--	--	221H-156A	--
110	221H-070	N	--	--	221H-070A	--
	221H-071	N	--	--	221H-071A	--
	221H-072	N	--	--	221H-072A	--
	221H-173	N	--	--	221H-073A	--
	221H-119	N	--	--	221H-119A	--

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
110 (cont.)	221H-120	N	--	--	221H-120A	--
	221H-154	N	--	--	221H-154A	--
	221H-157	N	--	--	221H-157A	--
111	221H-123	N	--	--	221H-123A	--
	221H-140	N	--	--	221H-140A	--
	221H-145	N	--	--	221H-145A	--
	221H-146	N	--	--	221H-146A	--
	221H-147	N	--	--	221H-147A	--
	221H-149	N	--	--	221H-149A	--
	221H-150	N	--	--	221H-150A	--
112	221H-094	N	--	--	221H-094A	--
	221H-099	N	--	--	221H-099A	--
	221H-100	N	--	--	221H-100A	--
	221H-106	N	--	--	221H-106A	--
	221H-111	N	--	--	221H-111A	--
	221H-121	N	--	--	221H-121A	--
	221H-122	N	--	--	221H-122A	--
	221H-139	N	--	--	221H-139A	--
	221H-143	N	--	--	221H-143A	--
	221H-144	N	--	--	221H-144A	--
	221H-148	N	--	--	221H-148A	--
113	221H-125	N	--	--	221H-125A	--
	221H-126	N	--	--	221H-126A	--
	221H-162	N	--	--	221H-162A	--
	221H-163	N	--	--	221H-163A	--
114	221H-078	N	--	--	221H-078A	--
	221H-079	N	--	--	221H-079A	--
	221H-080	N	--	--	221H-080A	--
	221H-090	N	--	--	221H-090A	--
	221H-091	N	--	--	221H-091A	--
	221H-092	N	--	--	221H-092A	--
	221H-093	N	--	--	221H-093A	--
	221H-095	N	--	--	221H-095A	--
	221H-096	N	--	--	221H-096A	--
	221H-102	N	--	--	221H-102A	--
	221H-104	N	--	--	221H-104A	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
114 (cont.)	221H-105	N	--	--	221H-105A	--
	221H-109	N	--	--	221H-109A	--
	221H-110	N	--	--	221H-110A	--
	221H-114	N	--	--	221H-114A	--
	221H-117	N	--	--	221H-117A	--
	221H-118	N	--	--	221H-118A	--
	221H-124	N	--	--	221H-124A	--
	221H-129	N	--	--	221H-129A	--
	221H-138	N	--	--	221H-138A	--
	221H-153	N	--	--	221H-153A	--
	221H-155	N	--	--	221H-155A	--
116	221H-133	N	--	--	221H-133A	--
	221H-134	N	--	--	221H-134A	--
	221H-137	N	--	--	221H-137A	--
	221H-141	N	--	--	221H-141A	--
	221H-151	N	--	--	221H-151A	--
117	221H-084	N	--	--	221H-084A	--
	221H-085	N	--	--	221H-085A	--
	221H-097	N	--	--	221H-097A	--
	221H-098	N	--	--	221H-098A	--
	221H-113	N	--	--	221H-113A	--
	221H-132	N	--	--	221H-132A	--
118	221H-112	N	--	--	221H-112A	--
	221H-130	N	--	--	221H-130A	--
	221H-131	N	--	--	221H-131A	--
	221H-135	N	--	--	221H-135A	--
	221H-136	N	--	--	221H-136A	--
	221H-142	N	--	--	221H-142A	--
119	221H-074	N	--	--	221H-074A	--
	221H-075	N	--	--	221H-075A	--
	221H-076	N	--	--	221H-076A	--
	221H-160	N	--	--	221H-160A	--
	221H-161	N	--	--	221H-161A	--
124	204H-010	N	--	M (O)	204H-010A*	--

\* Justification acceptable in TER

(C) Completed

(O) Ongoing

TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
128	204H-012	N	--	M (C)	204H-012A*	--
134	210H-015	N	--	M (O)	210H-015A*	--
136	210H-014	N	--	M (O)	210H-014A*	--
138	210H-011	N	--	M (O)	210H-011A*	--
	210H-010	N	--	M (O)	210H-010A*	--
151	204H-011	N	--	M (O)	204H-011A*	--
165	204H-009	N	--	M (O)	204H-009A*	--
181	208H-026	Y	--	--	208H-026A	--
182	208H-025	Y	--	--	208H-025A	--
184	208H-020	Y	--	--	208H-020A	--
	208H-021	Y	--	--	208H-021A	--
	208H-022	Y	--	--	208H-022A	--
	208H-023	Y	--	--	208H-023A	--
	208H-024	Y	--	--	208H-024A	--
185	208H-014	Y	--	--	208H-014A	--
	208H-015	Y	--	--	208H-015A	--
	208H-016	Y	--	--	208H-016A	--
	208H-017	Y	--	--	208H-017A	--
	208H-018	Y	--	--	208H-018A	--
210	221H-267	N	--	--	221H-267A	Yes
	221H-268	N	--	--	221H-268A	Yes
	221H-269	N	--	--	221H-269A	Yes
	221H-270	N	--	--	221H-270A	Yes
	221H-271	N	--	--	221H-271A	Yes

\* Justification acceptable in TER  
(C) Completed  
(O) Ongoing



TABLE 2 - TER CATEGORY II.A

TER Number	SCEW Number	Replacement	Analysis/ Test	Modification	Justification	Discussion Requested
210 (cont.)	221H-272	N	--	--	221H-272A	Yes (G-1)
	221H-273	N	--	--	221H-273A	Yes (G-1)
	221H-274	N	--	--	221H-274A	Yes (G-1)
	221H-275	N	--	--	221H-275A	Yes (G-1)
	221H-276	N	--	--	221H-276A	Yes (G-1)
	221H-277	N	--	--	221H-277A	Yes (G-1)
	221H-278	N	--	--	221H-278A	Yes (G-1)
	221H-279	N	--	--	221H-279A	Yes (G-1)
	221H-280	N	--	--	221H-280A	Yes (G-1)
	221H-281	N	--	--	221H-281A	Yes (G-1)
	221H-282	N	--	--	221H-282A	Yes (G-1)
	221H-283	N	--	--	221H-283A	Yes (G-1)
	221H-284	N	--	--	221H-284A	Yes (G-1)
212	221H-243	N	--	--	221H-243A	Yes (G-1)
213	221H-190	N	--	--	221H-190A	Yes (G-1)
214	221H-257	N	--	--	221H-257A	Yes (G-1)

\* Justification acceptable in TER  
 (C) Completed  
 (O) Ongoing

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-259  
Rev.: 2

Prepared by: Sonia Yoris Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic 1E Electrical Components	Operating Time	1 Year	6 Years	Note 1	N/A	N/A	None
Plant ID No. NVICS11B	Temperature (°F)	282.0	Exempt	C-601	Note 2	N/A	None
Component: Push Button Switch							
Manufacturer: REES, Inc.	Pressure (PSIA)	17.0	Exempt	C-601	Note 2	N/A	None
Model Number:	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Cat. No. 01461-202							
Function: Test Jog	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A							
Service: Steam Generator 1 Atmospheric Steam Vent Valve	Radiation	1.86 x 10 <sup>4</sup> RADS	1.0 x 10 <sup>7</sup> RADS	T	Note 3	Analysis	None
Location: Auxiliary Bldg. Rm. 601							
Flood Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	6 Years	I	Note 3	Analysis	None
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-259A  
Rev.: 2

NOTES

Prepared by: Sonia Macis Date: 3/7/83  
Checked by: LMR Date: 3/7/83

1. One year operating time is used as a conservative maximum specification.
2. This component is a test switch connected in series with the solenoid valves that control a steam generator atmospheric vent valve. The switch is not needed to control the solenoid valves, but is merely a means of interrupting their energizing circuits in order to test the valves. The switch is a completely passive device. The switch is exempt from qualification because there is no potential failure of the switch which could degrade any safety-related functions. Switch contacts shorting closed would have no affect on the circuit as the switch contacts are normally closed. Switch contacts opening would deenergize its respective solenoid valve performing the same function as the safety features activation system contacts in this circuit. Indication will be unaffected as it is provided by a separate 120VAC circuit. There is no identifiable failure mechanism which would cause the switch contacts to open; however, if failure of the switch (to an open position) was to occur due to a main steam line break, the solenoid valves de-energize, causing the atmospheric vent valve to move to its desired fail-safe closed position. During plant cooldown, the switch may be jumpered, repaired, or replaced; or the atmospheric vent valve may be operated manually.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-246  
Rev.: 2

Prepared by: Sonia Yost Date: 3/7/83  
Checked by: 27M. [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic 1E Electrical Components	Operating Time	75 Seconds	6 Years	K	Note 2	Analysis	None
Plant ID No.: NV5715	Temperature (°F)	130.0	Exempt	C-105	Note 1	N/A	None
Component: Push Button Switch	Pressure (PSIA)	16.06	Exempt	C-105	Note 1	N/A	None
Manufacturer: Rees, Inc.	Relative Humidity (%)	100.0	Exempt	A	Note 1	N/A	None
Model Number: Cat. No. 01461-202	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Test Jog	Radiation	$1.9 \times 10^6$ RADS	$1.0 \times 10^7$ RADS	T	Note 2	Analysis	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	6 Years	I	Note 2	Analysis	None
Service: Emergency Core Cooling System Room 105 Isolation Damper	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 105							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>							

ITEM#6

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-246A  
Rev.: 2

NOTES

Prepared by: Sonia Ybarra Date 3/7/83  
Checked by: William D. Smith Date 3/7/83

1. This component is a pushbutton test switch connected in series with a solenoid valve. This switch is not needed to control the valve, but is merely a means of interrupting the valve's energizing circuit in order to test the valve (test jog). The switch's contacts are in a normally closed fail-safe position. The harsh steam environment is due to a feedline break. This component, the pushbutton test switch and the controlled solenoid valve, is not required to function during this accident and can therefore be exempted from qualification for the harsh steam environment. This solenoid valve controls the air supply. The ECCS room isolation damper maintains a negative pressure in certain areas to minimize the spread of radioactivity in case of fuel failure problems. If it becomes necessary to restore ventilation to the ECCS rooms following inadvertent component failure, the switch can be jumpered, repaired, or replaced. Its subsequent failure will not mislead an operator because valve repositioning would not take place. If damper closes, this ECCS Room is provided with two safety-related room unit coolers which automatically come on upon temperature rise to 104°F.
2. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-208  
Rev.: 2

Prepared by: Sonia N. Brown Date: 3/7/83  
Checked by: William D. Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	6 Years	F	Note 2	Analysis	None
Plant ID No. NV13830	Temperature (°F)	198.0	Exempt	C-236	Note 1	N/A	None
Component: Push Button Switch							
Manufacturer: Rees, Inc.	Pressure (PSIA)	15.51	Exempt	C-236	Note 1	N/A	None
Model Number:	Relative Humidity (%)	100.0	Exempt	A	Note 1	N/A	None
Cat. No. 01461-202							
Function: Local Stop Control	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A							
Service: Auxiliary Feed Pump 2 Suction Valve	Radiation	1.97 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>7</sup> RADS	T	Note 2	Analysis	None
Location: Auxiliary Bldg. Rm. 236							
Flood Level Elev: N/A	Aging	40 Years	6 Years	X	Note 2	Analysis	None
Above Flood Level: N/A							
Needed for:	Submergence	N/A	N/A	N/A	N/A	N/A	None
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM#10

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-208A  
Rev.: 2

NOTES

Prepared by: Sonia Morris Date 3/7/83  
Checked by: L. MacDonald Date 3/7/83

1. This component is a stop switch connected in series with both the open and close circuits for SW13830 (the motor-operated auxiliary feed pump suction valve). The switch is not needed to control the valve, but is merely a local means of stopping valve movement. Operation of the valve may be necessary to allow the auxiliary feed pump to draw suction from the service water system once the condensate storage tank supply has been depleted. The switch is a completely passive device. The switch is exempt from qualification because no failure of the switch in this accident will degrade any safety-related functions or mislead the operator. Switch contacts shorting closed would have no affect on the circuit as the switch is normally closed. Switch contacts failing open would prevent valve operation in either direction; however, this valve does not require immediate operation. There is no identifiable failure mechanism which would cause the switch contacts to open; however, if failure of the switch (to an open position) was to occur due to the harsh steam environment caused by a main feedwater line rupture, operation of SW13830 would still be possible. In the highly unlikely event that the switch fails open and the service water suction is needed, the switch may be jumpered in order to operate the valve. Room cooldown to ambient conditions will have occurred within 6.7 minutes following the accident. Operation of SW13830 will not be necessary before the room cooldown is complete.
2. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

ITEM#10

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-261  
Rev.: 2

Prepared by: Sonia Yoris Date: 3/7/83  
Checked by: L.M. O'Driscoll Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	6 Years	Note 2	Note 3	Analysis	None
Plant ID No.: NVMU33	Temperature (°F)	198.0	Exempt	C-236	Note 1	N/A	None
Component: Push Button Switch							
Manufacturer: Rees, Inc.	Pressure (PSIA)	15.51	Exempt	C-236	Note 1	N/A	None
Model Number:	Relative Humidity (%)	100.0	Exempt	A	Note 1	N/A	None
Cat. No. 01461-202							
Function: Test Jog	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A							
Service: Reactor Coolant Normal Make-Up Isolation Valve	Radiation	1.97 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>7</sup> RADS	T	Note 3	Analysis	None
Location: Auxiliary Bldg. Rm. 236							
Flood Level Elev: N/A	Aging	40 Years	6 Years	I	Note 3	Analysis	None
Above Flood Level: N/A							
Needed for:	Submergence	N/A	N/A	N/A	N/A	N/A	None
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM#10

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-261A  
Rev.: 2

NOTES

Prepared by: Smia Yoois Date 3/7/83  
Checked by: SMADonell Date 3/7/83

1. This component is a test switch connected in series with a solenoid valve. This switch is not needed to control the valve, but is merely a means of interrupting the valve's energizing circuit in order to test the valve. In the event of a high energy line break, the switch will be exposed to a harsh steam environment. The switch is a completely passive device. The switch is exempt from qualification because there is no potential failure of the switch which could degrade any safety-related functions. Switch contacts shorting closed would have no affect on the circuit as the switch contacts are normally closed. Switch contacts opening would deenergize its respective solenoid valve performing the same function as the safety features activation system contacts in this circuit. Indication will be unaffected as it is provided by a separate 120VAC circuit. There is no identifiable failure mechanism which would cause the switch contacts to open; however, in the highly unlikely event that the switch does fail open, it may be jumpered in order to operate the solenoid valve. The solenoid valve can also be operated manually. There is adequate time to allow for room cooldown before valve operation would be necessary.
2. One-year operating time is used as a conservative maximum specification.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

ITEM#10

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-258  
Rev.: 2

Prepared by: Sonia Apais Date: 3/7/83  
Checked by: L. M. Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	6 Years	Note 2	Note 1	N/A	None
Plant ID No. NVICS11A	Temperature (°F)	344.0	Exempt	C-602	Note 2	N/A	None
Component: Push Button Switch							
Manufacturer: Rees, Inc.	Pressure (PSIA)	20.0	Exempt	C-602	Note 2	N/A	None
Model Number:	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Cat. No. 01461-202							
Function: Test Jog	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A							
Service: Steam Generator 2 Atmospheric Steam Vent Valve	Radiation	1.86 x 10 <sup>4</sup> RADS	1.0 x 10 <sup>7</sup> RADS	T	Note 3	Analysis	None
Location: Auxiliary Bldg. Rm. 602							
Flood Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	6 Years	I	Note 3	Analysis	None
Needed for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM#21



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-258A  
Rev.: 2

NOTES

Prepared by: Sonia Lopez Date: 3/7/83  
Checked by: AMC Date: 3/7/83

1. One-year operating time is used as a conservative maximum specification.
2. This component is a test switch connected in series with the solenoid valves that control a steam generator atmospheric vent valve. The switch is not needed to control the solenoid valves, but is merely a means of interrupting their energizing circuits in order to test the valves. The switch is a completely passive device. The switch is exempt from qualification because there is no potential failure of the switch which could degrade any safety-related functions. Switch contacts shorting closed would have no affect on the circuit as the switch contacts are normally closed. Switch contacts opening would deenergize its respective solenoid valve performing the same function as the safety features activation system contacts in this circuit. Indication will be unaffected as it is provided by a separate 120VAC circuit. There is no identifiable failure mechanism which would cause the switch contacts to open; however, if failure of the switch (to an open position) was to occur due to a main steam line break, the solenoid valves de-energize causing the atmospheric vent valve to move to its desired fail-safe closed position. During plant cooldown, the switch may be jumpered, repaired, or replaced; or the atmospheric vent valve may be operated manually.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

ITEM #21

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-201A  
Rev.: 2

NOTES

Prepared by: Sonia Noas Date 3/7/83  
Checked by: SMC/Donnell Date 3/7/83

1. This pushbutton switch is part of the 125 v.d.c. control circuit for the two solenoid valves that operate a containment air cooler service water outlet valve. The switch is only used for local control of the valve. Normal valve operation is accomplished automatically with auxiliary contacts that are actuated by the valves' associated containment air cooler fan motor. The valves' control circuit is isolated from the 125 v.d.c. supply bus with two 3 ampere fuses.

This switch is exempt from qualification in the saturated steam environment caused by a high energy line break outside containment. Failure of the switch in this environment, whether it opens, closes, or leaves the valve inoperable, will not degrade other safety-related functions because the containment air cooling system is not needed for this high energy line break accident. Loss of power in the control circuit (due to fuses blowing) will not affect the supply bus because the fault will thus be isolated. An HELB outside containment (accident which creates the harsh environment) will not require the use of the containment air coolers. An HELB inside containment (which might require the containment air cooling system) would not expose the switch to a harsh environment. Switch failure does not degrade any other safety-related functions or mislead the operator and, therefore, the switch is exempt from qualification for the harsh steam environment. Any failure of the switch would not prevent the SFAS function from being carried out.

Both local and control room valve position indicating lights are powered by a 120 v.a.c. instrument bus. These lights are operated by the valve's position indicating (limit) switches. Since the pushbutton switch is part of a separate 125 v.d.c. control circuit, its failure can not affect the operation of these devices. Switch failure will not mislead the operator because valve position indication will be unaffected.

2. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
3. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-202A  
Rev.: 2

NOTES

Prepared by: Soma Harris Date 3/7/83  
Checked by: Amelia Date 3/7/83

1. This pushbutton switch is part of the 125 v.d.c. control circuit for the two solenoid valves that operate a containment air cooler service water outlet valve. The switch is only used for local control of the valve. Normal valve operation is accomplished automatically with auxiliary contacts that are actuated by the valves' associated containment air cooler fan motor. The valves' control circuit is isolated from the 125 v.d.c. supply bus with two 3 ampere fuses.

This switch is exempt from qualification in the saturated steam environment caused by a high energy line break outside containment. Failure of the switch in this environment, whether it opens, closes, or leaves the valve inoperable, will not degrade other safety-related functions because the containment air cooling system is not needed for this high energy line break accident. Loss of power in the control circuit (due to fuses blowing) will not affect the supply bus because the fault will thus be isolated. An HELB outside containment (accident which creates the harsh environment) will not require the use of the containment air coolers. An HELB inside containment (which might require the containment air cooling system) would not expose the switch to a harsh environment. Switch failure does not degrade any other safety-related functions or mislead the operator and, therefore, the switch is exempt from qualification for the harsh steam environment. Any failure of the switch would not prevent the SFAS function from being carried out.

Both local and control room valve position indicating lights are powered by a 120 v.a.c. instrument bus. These lights are operated by the valve's position indicating (limit) switches. Since the pushbutton switch is part of a separate 125 v.d.c. control circuit, its failure can not affect the operation of these devices. Switch failure will not mislead the operator because valve position indication will be unaffected.

2. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
3. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #24

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-203A  
Rev.: 2

NOTES

Prepared by: Sonia M. Jones Date 3/7/83  
Checked by: Amie D. Smith Date 3/7/83

1. This pushbutton switch is part of the 125 v.d.c. control circuit for the two solenoid valves that operate a containment air cooler service water outlet valve. The switch is only used for local control of the valve. Normal valve operation is accomplished automatically with auxiliary contacts that are actuated by the valves' associated containment air cooler fan motor. The valves' control circuit is isolated from the 125 v.d.c. supply bus with two 3 ampere fuses.

This switch is exempt from qualification in the saturated steam environment caused by a high energy line break outside containment. Failure of the switch in this environment, whether it opens, closes, or leaves the valve inoperable, will not degrade other safety-related functions because the containment air cooling system is not needed for this high energy line break accident. Loss of power in the control circuit (due to fuses blowing) will not affect the supply bus because the fault will thus be isolated. An HELB outside containment (accident which creates the harsh environment) will not require the use of the containment air coolers. An HELB inside containment (which might require the containment air cooling system) would not expose the switch to a harsh environment. Switch failure does not degrade any other safety-related functions or mislead the operator and, therefore, the switch is exempt from qualification for the harsh steam environment. Any failure of the switch would not prevent the SFAS function from being carried out.

This open/close switch has its close contacts connected in series with the energizing circuits for the solenoid valves that operate a containment air cooler service water outlet valve. Normal control of the valve is accomplished through the use of auxiliary contacts which energize off their associated containment air cooler fan motor. In the event of an accident, the switch contacts must remain in their normal fail-safe positions to allow for normal valve control. There is no identifiable failure mechanism which will cause the switch contacts to move from their fail-safe positions; therefore, failure of the switch will not degrade other safety-related functions or mislead the operator.

Both local and control room valve position indicating lights are powered by a 120 v.a.c. instrument bus. These lights are operated by the valve's position indicating (limit) switches. Since the pushbutton switch is part of a separate 125 v.d.c. control circuit, its failure can not affect the operation of these devices. Switch failure will not mislead the operator because valve position indication will be unaffected.

2. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
3. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM#24

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-012  
Rev.: 2

Prepared by: Sonia Lopez Date: 3/7/83  
Checked by: St. Michael Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components	Operating Time	1 Year	1.1 Years	F	E-1 Note 1 ROC-30B	Simultaneous Test	None
Plant ID No. AG1	Temperature (°F)	283.0	346.0	H, X	E-1 ROC-30B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	127.7	G, X	E-1 ROC-30B	Simultaneous Test	None
Manufacturer: Okonite	Relative Humidity (%)	100.0	100.0	A	E-1 ROC-30B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-1 ROC-30B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	3.87 x 10 <sup>7</sup> RADS	2.0 x 10 <sup>8</sup> RADS	CAL-44	E-1 ROC-30B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-1 ROC-30B	Sequential Test	None
Service: Electrical Control	Submergence	5'2"-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #38



Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-013  
Rev.: 2

Prepared by: Samia Yaro Date: 3/7/83  
Checked by: Edmund Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic 1E Electrical Components	Operating Time	1 Year	1.1 Years	F	E-1 Note 1 ROC-30B	Simultaneous Test	None
Plant ID No. AG2	Temperature (°F)	283.0	346.0	H, X	E-1 ROC-30B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	127.7	G, X	E-1 ROC-30B	Simultaneous Test	None
Manufacturer: Okonite	Relative Humidity (%)	100.0	100.0	A	E-1 ROC-30B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-1 ROC-30B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	3.87 x 10 <sup>7</sup> RADS	2.0 x 10 <sup>8</sup> RADS	CAL-44	E-1 ROC-30B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-1 ROC-30B	Sequential Test	None
Service: Electrical Control	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #38

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-020  
Rev.: 2

Prepared by: Seena Yantis Date: 3/7/83  
Checked by: Edmund Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-1 Note 1 ROC-30B	Simultaneous Test	None
Plant ID No. B10	Temperature (°F)	283.0	346.0	H, X	E-1 ROC-30B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	127.7	G, X	E-1 ROC-30B	Simultaneous Test	None
Manufacturer: Okonite	Relative Humidity (%)	100.0	100.0	A	E-1 ROC-30B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-1 ROC-30B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$2.0 \times 10^8$ RADS	CAL-44	E-1 ROC-30B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-1 ROC-30B	Sequential Test	None
Service: Electrical Control	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #38

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-037  
Rev.: 2

Prepared by: Sara Yosso Date: 3/7/83  
Checked by: Amelia Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. COL	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

Facility: Davis-Besse Unit 1  
 Socket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-038  
 Rev.: 2

Prepared by: Sonia Upadhyay Date: 2/7/82  
 Checked by: D. M. ... Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. CO2	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	3.87 x 10 <sup>7</sup> RADS	1.0 x 10 <sup>8</sup> RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #39

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-039  
Rev.: 2

Prepared by: Sonia Uppis Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C10	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #39



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-040  
Rev.: 2

Prepared by: Sonia Yonas Date: 3/7/83  
Checked by: Emad Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C11	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment	Hot Shutdown	<input checked="" type="checkbox"/>					
	Cold Shutdown	<input checked="" type="checkbox"/>					

ITEM #39

Facility: Davis-Besse Unit 1  
 Pocket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-041  
 Rev.: 2

Prepared by: Janis Ubois Date: 3/7/83  
 Checked by: Edward J. Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C12	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-042  
Rev.: 2

Prepared by: Laura P. Davis Date: 3/7/83  
Checked by: L. Davis Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C13	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #39

Facility: Davis-Besse Unit 1  
 Socket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-043  
 Rev.: 2

Prepared by: Jonie Norris Date: 3/7/87  
 Checked by: Edna Smith Date: 3/7/87

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C14	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-044  
Rev.: 2

Prepared by: Sonia Norris Date: 3/7/83  
Checked by: L. McDonald Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C15	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							



Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-045  
Rev.: 2

Prepared by: Sonia Morais Date: 3/7/83  
Checked by: Amadeus Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C20	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #39

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-046  
Rev.: 2

Prepared by: Sonia Hood Date: 3/7/83  
Checked by: Eric D. Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C21	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-047  
Rev.: 2

Prepared by: Sonia Woods Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C22	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-048  
Rev.: 2

Prepared by: Swia Woods Date: 3/7/83  
Checked by: David Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C23	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM#39

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-049  
Rev.: 2

Prepared by: Erica M. Davis Date: 3/7/83  
Checked by: Ann D. Davis Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C24	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Korite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							



Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-050  
Rev.: 2

Prepared by: Sara Yossis Date: 3/7/83  
Checked by: Mike Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. C25	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-065  
Rev.: 2

Prepared by: Erica Harris Date: 3/7/83  
Checked by: Dr. J. J. Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic 1E Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. CS1	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #39

Facility: Davis-Besse Unit 1  
Socket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-066  
Rev.: 2

Prepared by: Susan Ybarras Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. CS2	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #39

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-067  
Rev.: 2

Prepared by: Sonia Horag Date: 3/7/83  
Checked by: Eric Dand Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. CS3	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #39

Facility: Davis-Besse Unit 1  
 Socket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-068  
 Rev.: 2

Prepared by: Erica Pavia Date: 3/7/83  
 Checked by: Erica Pavia Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. CS5	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	3.87 x 10 <sup>7</sup> RADS	1.0 x 10 <sup>8</sup> RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							



Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-069  
Rev.: 2

Prepared by: Sonia Yantis Date: 3/7/83  
Checked by: Donna D. Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. CS6	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Control	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Control Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #39

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-014  
Rev.: 2

Prepared by: Sonia Yoo Date: 2/7/83  
Checked by: Amador Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. B01	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM # 40

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-015  
Rev.: 2

Prepared by: Sonia Myers Date: 3/7/83  
Checked by: Shirley Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years Note 1	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. B02	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-016  
Rev.: 2

Prepared by: Sonia K. Davis Date: 3/7/83  
Checked by: James D. Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. B04	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0 Note 2	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	3.87 x 10 <sup>7</sup> RADS	1.0 x 10 <sup>8</sup> RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-017  
Rev.: 2

Prepared by: Sonia Yessis Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic 1E Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. B06	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23b CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-2 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40



Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-018  
Rev.: 2

Prepared by: Jana Nossis Date: 3/7/83  
Checked by: LMacDonald Date: 3/1/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. 807	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	3.87 x 10 <sup>7</sup> RADS	1.0 x 10 <sup>8</sup> RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-021  
Rev.: 2

Prepared by: Sonia Noyes Date: 3/7/83  
Checked by: Jim Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. B11	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	3.87 x 10 <sup>7</sup> RADS	1.0 x 10 <sup>8</sup> RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
Docket: 50-346

## SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-029  
Rev.: 2

Prepared by: Sinia Yopas Date: 3/7/83  
Checked by: Samuel Ford Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic 1E Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. BG1	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
 Socket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-030  
 Rev.: 2

Prepared by: Scoria N/psa Date: 3/7/83  
 Checked by: LMC/D Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. BG2	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable							
Manufacturer: Kerite							
Model Number: Note 4							
Function: Power							
Accuracy: Spec: N/A Demon: N/A	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Service: Power Cable	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Location: Containment	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Flood Level Elev: 572'-2"	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-031  
Rev.: 2

Prepared by: John J. Yaris Date: 3/7/83  
Checked by: Lincoln Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic 1E Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. BG3	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40



Facility: Davis-Besse Unit 1  
 Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-032  
 Rev.: 2

Prepared by: Jessie H. Davis Date: 3/7/83  
 Checked by: Emmett D. Davis Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. BG4	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-033  
Rev.: 2

Prepared by: Sonia Yoo Date: 3/7/83  
Checked by: L. M. G. A. Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. BG5	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
 Socket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-034  
 Rev.: 2

Prepared by: Sonia Afonso Date: 3/7/83  
 Checked by: Samuel Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	E-3 Note 1 V-23B	Simultaneous Test	None
Plant ID No. BG6	Temperature (°F)	283.0	320.0	H, X	E-3 V-23B	Simultaneous Test	None
Component: Cable	Pressure (PSIA)	52.0	96.7	G, X	E-3 V-23B	Simultaneous Test	None
Manufacturer: Kerite	Relative Humidity (%)	100.0	100.0	A	E-3 V-23B	Simultaneous Test	None
Model Number: Note 4	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	E-3 V-23B CAL-40 Note 2	Simultaneous Test, Analysis	None
Function: Power	Radiation	$3.87 \times 10^7$ RADS	$1.0 \times 10^8$ RADS	CAL-44	E-3 V-23B	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years	I	E-3 V-23B	Sequential Test	None
Service: Power Cable	Submergence	572'-2"	Note 3	B	Note 3	Note 3	None
Location: Containment							
Flood Level Elev: 572'-2"							
Above Flood Level: No							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #40

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 319H-007  
Rev.: 2

Prepared by: Sonia Lopez Date: 3/7/82  
Checked by: J. McDonald Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Safety Features Actuation	Operating Time	1 Year	1.1 Years	Note 2	J-10 Note 1 V-16A	Simultaneous Test	None
Plant ID No. PTRC2A3	Temperature (°F)	283.0	314.0	H, X	J-10 V-16A	Simultaneous Test	None
Component: Pressure Transmitter	Pressure (PSIA)	52.0	78.0	G, X	J-10 V-16A	Simultaneous Test	None
Manufacturer: Foxboro	Relative Humidity (%)	100.0	100.0	A	J-10 V-16A	Simultaneous Test	None
Model Number: EllGH S/N 266-0831	Chemical Spray	Boric Acid 300 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	J-10 V-16A CAL-40 Note 3	Simultaneous Test, Analysis	None
Function: Transmits Pressure Signals	Radiation	4.69 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>7</sup> RADS	AF	J-5 V-16A	Sequential Test	None
Accuracy: Spec: 1.0% Demon: 0.94%	Aging	40 Years	10.83 Years Note 5	I	Note 4	Analysis	None
Service: RC Loop 2 HLG Wide Range Pressure for SFAS Ch. 4 and Indication	Submergence	572' - 2"	606' - 0"	B	J-11	N/A	None
Location: Containment Rm. 410	Hot Shutdown	<input checked="" type="checkbox"/>					
Flood Level Elev: 572'-2" Above Flood Level: Yes	Cold Shutdown	<input checked="" type="checkbox"/>					
Needed for:							

ITEM # 41

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 219H-008  
Rev.: 2

Prepared by: Sonia Xpoo Date: 3/7/83  
Checked by: L. McDonald Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Safety Features Actuation	Operating Time	1 Year	1.1 Years	Note 2	J-10 Note 1 V-16A	Simultaneous Test	None
Plant ID No. PTRC2A4	Temperature (°F)	283.0	314.0	H, X	J-10 V-16A	Simultaneous Test	None
Component: Pressure Transmitter	Pressure (PSIA)	52.0	78.0	G, X	J-10 V-16A	Simultaneous Test	None
Manufacturer: Foxboro	Relative Humidity (%)	100.0	100.0	A	J-10 V-16A	Simultaneous Test	None
Model Number: EllGH S/N 266-0832	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	J-10 V-16A CAL-40 Note 3	Simultaneous Test, Analysis	None
Function: Transmits Pressure Signals	Radiation	4.60 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>7</sup> RADS	AF	J-5 V-16A	Sequential Test	None
Accuracy: Spec: 1.0% Demon: 0.94%	Aging	40 Years	10.83 Years Note 5	I	Note 4	Analysis	None
Service: RC Loop 2 HLG Wide Range Pressure for SFAS Ch. 2 and Indication	Submergence	572' - 2"	606' - 0"	B	J-11	N/A	None
Location: Containment Rm. 410							
Flood Level Elev: 572'-2"							
Above Flood Level: Yes							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #41



Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 219H-009  
Rev.: 2

Prepared by: Janis M. Poca Date: 3/7/83  
Checked by: Eric J. Poca Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Safety Features Actuation	Operating Time	1 Year	1.1 Years	Note 2	J-10 Note 1 V-16A	Simultaneous Test	None
Plant ID No. PTRC2B3	Temperature (°F)	283.0	314.0	H, X	J-10 V-16A	Simultaneous Test	None
Component: Pressure Transmitter	Pressure (PSIA)	52.0	78.0	G, X	J-10 V-16A	Simultaneous Test	None
Manufacturer: Foxboro	Relative Humidity (%)	100.0	100.0	A	J-10 V-16A	Simultaneous Test	None
Model Number: EllGH S/N 266-0832	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	J-10 V-16A CAL-40 Note 3	Simultaneous Test, Analysis	None
Function: Transmits Pressure Signals	Radiation	5.44 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>7</sup> RADS	AF	J-5 V-16A	Sequential Test	None
Accuracy: Spec: 1.0% Demon: 0.94%	Aging	40 Years	10.83 Years Note 5	I	Note 4	Analysis	None
Service: RC Loop 1 HLG Wide Range Pressure for SFAS Ch. 3 and Indication	Submergence	572' - 2"	606' - 0"	B	J-11	N/A	None
Location: Containment Rm. 407							
Flood Level Elev: 572'-2"							
Above Flood Level: Yes							
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #41

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 219H-010  
Rev.: 2

Prepared by: Sara Woods Date: 3/7/83  
Checked by: LMH Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Safety Features Actuation	Operating Time	1 Year	1.1 Years	Note 2	J-10 Note 1 V-16A	Simultaneous Test	None
Plant ID No. PTRC2B4	Temperature (°F)	283.0	314.0	H, X	J-10 V-16A	Simultaneous Test	None
Component: Pressure Transmitter	Pressure (PSIA)	52.0	78.0	G, X	J-10 V-16A	Simultaneous Test	None
Manufacturer: Foxboro	Relative Humidity (%)	100.0	100.0	A	J-10 V-16A	Simultaneous Test	None
Model Number: EllGH S/N 266-0834	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0 Note 3	A	J-10 V-16A CAL-40 Note 3	Simultaneous Test, Analysis	None
Function: Transmits Pressure Signals	Radiation	4.89 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>7</sup> RADS	AF	J-5 V-16A	Sequential Test	None
Accuracy: Spec: 1.0% Demon: 0.94%	Aging	40 Years	10.83 Years Note 5	I	Note 4	Analysis	None
Service: RC Loop 1 HLG Wide Range Pressure for SFAS Ch. 1 and Indication	Submergence	572' - 2"	606' - 0"	B	J-11	N/A	None
Location: Containment Rm. 407	Hot Shutdown	<input checked="" type="checkbox"/>					
Flood Level Elev: 572'-2" Above Flood Level: Yes	Cold Shutdown	<input checked="" type="checkbox"/>					
Needed for:							

ITEM #41

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 219H-006  
Rev.: 2

Prepared by: Sonia Yoo Date: 3/7/03  
Checked by: William S. Date: 3/12/03

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Safety Features Actuation	Operating Time	1 Year	10.83 Years	Note 1	J-6 CAL-38 V-16A	Analysis	None
Plant ID No. PT2003	Temperature (°F)	N/A	N/A	Note 2	N/A	N/A	None
Component: Pressure Transmitter	Pressure (PSIA)	N/A	N/A	Note 2	N/A	N/A	None
Manufacturer: Foxboro	Relative Humidity (%)	N/A	N/A	Note 2	N/A	N/A	None
Model Number: E11AH S/N 319-2424	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Transmits Pressure Signals	Radiation	4.17 x 10 <sup>5</sup> RADS	2.2 x 10 <sup>8</sup> RADS	T	J-6 V-16A	Sequential Test	None
Accuracy: Spec: 1.0% Demon: 0.94%	Aging	40 Years	10.83 Years Note 4	I	Note 3	Analysis	None
Service: Containment Pressure Input to SFAS Channel 4 and Indication	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 426							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input checked="" type="checkbox"/>							

ITEM#43

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 219H-005  
Rev.: 2

Prepared by: Sonia Hossain Date: 3/7/83  
Checked by: Lyndee Donnell Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Safety Features Actuation	Operating Time	1 Year	1.1 Years	Note 2	J-10 Note 1 V-16A	Simultaneous Test	None
Plant ID No. PT2002	Temperature (°F)	249.0	314.0	C-500	J-10 V-16A	Simultaneous Test	None
Component: Pressure Transmitter	Pressure (PSIA)	15.61	78.0	C-500	J-10 V-16A	Simultaneous Test	None
Manufacturer: Foxboro	Relative Humidity (%)	100.0	100.0	A	J-10 V-16A	Simultaneous Test	None
Model Number: EllAH S/N 319-2423	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Transmits Pressure Signals	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: 1.0% Demon: 0.94%	Aging	40 Years	10.83 Years Note 4	I	Note 3	Analysis	None
Service: Containment Pressure Input to SFAS Channel 3 and Indication	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 500							
Flood Level Elev: N/A							
Above Flood Level: N/A							
Needed for: Hot Shutdown <input type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 219H-004  
Rev.: 2

Prepared by: Senia Speer Date: 3/7/83  
Checked by: Samuel Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Safety Features Actuation	Operating Time	1 Year	1.1 years	Note 2	J-10 Note 1 V-16A	Simultaneous Test	None
Plant ID No. PT2001	Temperature (°F)	267.0	314.0	C-501	J-10 V-16A	Simultaneous Test	None
Component: Pressure Transmitter	Pressure (PSIA)	15.61	78.0	C-501	J-10 V-16A	Simultaneous Test	None
Manufacturer: Foxboro	Relative Humidity (%)	100.0	100.0	A	J-10 V-16A	Simultaneous Test	None
Model Number: E11AH S/N 319-2422	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Transmits Pressure Signals	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: 1.0% Demon: 0.94%	Aging	40 Years	10.83 Years Note 4	I	Note 3	Analysis	None
Service: Containment Pressure Input to SFAS Channel 2 and Indication	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 501							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #45



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-008A

Rev.: 2

NOTES

Prepared by: Sonia Upais Date: 3/7/83  
Checked by: Samuel D. Dwyer Date: 3/7/83

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

ITEM #48

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-009A  
Rev.: 2

NOTES

Prepared by: Sonia M. Davis Date: 3/7/83  
Checked by: John M. Davis Date: 3/7/83

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-010A  
Rev.: 2

NOTES

Prepared by: Janice A. Lewis Date: 3/7/83  
Checked by: J. M. D. Smith Date: 3/7/83

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

ITEM #48

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-011A  
Rev.: 2

NOTES

Prepared by: Janis Yeas Date: 3/7/83  
Checked by: Amend Date: 3/7/83

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-004A

Rev.: 2

NOTES

Prepared by: Sonia Lopez Date: 2/7/83  
Checked by: Jim Starnes Date: 3/7/83

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One-year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

ITEM #48



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-005A  
Rev.: 2

NOTES

Prepared by: Sonia Morris Date: 3/7/83  
Checked by: Ann McDonald Date: 3/7/83

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-006A

Rev.: 2

NOTES

Prepared by: Sara Yoneis Date: 3/7/83  
Checked by: AMM/Donoh Date: 3/7/83

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

ITEM #48

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-007A  
Rev.: 2

NOTES

Prepared by: Sonia Yoris Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

ITEM # 48

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 224H-004A  
Rev.: 2

NOTES

Prepared by: Sonia Yacis Date: 3/7/93  
Checked by: J. Macdonald Date: 3/7/93

1. This component is scheduled for replacement during the first refueling outage subsequent to component on-site availability. The transmitter remained operable throughout the LOCA simulation test and is qualified for its level of radiation. The transmitter is scheduled to be replaced with a qualified component prior to the end of its qualified life. Based on this information, interim plant operation is deemed justified.
2. One year operating time is used as a conservative maximum specification.
3. According to profiles G and H, containment conditions will nearly return to ambient (2.5 psig, 104°F) within 24 hours, with a complete return to ambient within seven days. Ambient conditions will remain for the duration of the accident and ensuing cooldown. The 24-hour LOCA simulation test exposed the transmitter to a more severe environment than that which would result from the postulated loss of coolant accident. Since the transmitter remained operable throughout the test, it can be concluded that it will also maintain functional operability during the short term accident environment and the long-term cooldown at ambient conditions.

ITEM #50

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 205H-005A  
Rev.: 2

NOTES

Prepared by: Smia Yoo Date 3/7/83  
Checked by: [Signature] Date 3/7/83

1. This component is a cooler fan motor in the ECCS pump room ventilation system. The ECCS pump room ventilation system's design function is to maintain a suitable environment for the electric motor drivers of high pressure injection pumps, decay heat pumps, and containment spray pumps (FSAR Vol. 5, Ch. 9, p. 102). In performing its function, the system ventilates rooms 105, 113, and 115. Local temperature switches control the system to maintain room temperatures between 80°F and 104°F.

The thermal-hydraulic analysis performed shows that only a postulated main feedwater line break will cause these rooms to be exposed to the elevated temperature, pressure, and relative humidity specified. Additionally, the analysis did not consider the use of any redundant or non-redundant ventilating systems, thus retaining conservatism.

Of the equipment located in these rooms, only the high pressure injection pump motors are required to aid in mitigating the effects of the postulated high energy line break accident. The emergency procedures applicable to the main feedwater line break specify the need for high pressure injection only in response to too rapid a feeding of the steam generators upon auxiliary feed initiation, thus causing primary system depressurization. Furthermore, setpoint changes have been made, lowering the steam generator level maintained to preclude the need for high pressure injection.

The high pressure injection pump motor will be shown to survive the short-term harsh environment in the highly unlikely event of its necessity to operate. No other equipment located in the ECCS pump rooms (105, 113, and 115) will be required to function during the harsh environment. It is therefore concluded that the ECCS pump room ventilation system is not required to function in the harsh steam environment resulting from the postulated main feedwater line rupture.

The cooler fan motor is exempt from qualification because it does not perform a safety-related function in the harsh steam environment caused by a main feedwater line rupture. Failure of the motor will not degrade other safety-related components because the ECCS room ventilation system is not needed to mitigate the effects of a high energy line break accident. Failure will not mislead the operator because the ventilation system operates automatically and only local indication is provided. Furthermore, the operator will not be concerned with ECCS pump room ventilation system status during high energy line break accidents.

2. A materials breakdown for the motor is continuing to be pursued through GE. The materials used in this analysis are from motors in the same series as those being qualified.

Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

ITEM #59



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 205H-006A  
Rev.: 2

NOTES

Prepared by: Jonas Yacobi Date 3/7/83  
Checked by: LM. M. M. M. Date 3/7/83

1. This component is a cooler fan motor in the ECCS pump room ventilation system. The ECCS pump room ventilation system's design function is to maintain a suitable environment for the electric motor drivers of high pressure injection pumps, decay heat pumps, and containment spray pumps (FSAR Vol. 5, Ch. 9, p. 102). In performing its function, the system ventilates rooms 105, 113, and 115. Local temperature switches control the system to maintain room temperatures between 80°F and 104°F.

The thermal-hydraulic analysis performed shows that only a postulated main feedwater line break will cause these rooms to be exposed to the elevated temperature, pressure, and relative humidity specified. Additionally, the analysis did not consider the use of any redundant or non-redundant ventilating systems, thus retaining conservatism.

Of the equipment located in these rooms, only the high pressure injection pump motors are required to aid in mitigating the effects of the postulated high energy line break accident. The emergency procedures applicable to the main feedwater line break specify the need for high pressure injection only in response to too rapid a feeding of the steam generators upon auxiliary feed initiation, thus causing primary system depressurization. Furthermore, setpoint changes have been made, lowering the steam generator level maintained to preclude the need for high pressure injection.

The high pressure injection pump motor will be shown to survive the short-term harsh environment in the highly unlikely event of its necessity to operate. No other equipment located in the ECCS pump rooms (105, 113, and 115) will be required to function during the harsh environment. It is therefore concluded that the ECCS pump room ventilation system is not required to function in the harsh steam environment resulting from the postulated main feedwater line rupture.

The cooler fan motor is exempt from qualification because it does not perform a safety-related function in the harsh steam environment caused by a main feedwater line rupture. Failure of the motor will not degrade other safety-related components because the ECCS room ventilation system is not needed to mitigate the effects of a high energy line break accident. Failure will not mislead the operator because the ventilation system operates automatically and only local indication is provided. Furthermore, the operator will not be concerned with ECCS pump room ventilation system status during high energy line break accidents.

2. A materials breakdown for the motor is continuing to be pursued through GE. The materials used in this analysis are from motors in the same series as those being qualified.

Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

ITEM #60

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 205H-007A  
Rev.: 2

NOTES

Prepared by: Sonia M. Davis Date 3/7/83  
Checked by: Jim M. Davis Date 3/7/83

1. This component is a cooler fan motor in the ECCS pump room ventilation system. The ECCS pump room ventilation system's design function is to maintain a suitable environment for the electric motor drivers of high pressure injection pumps, decay heat pumps, and containment spray pumps (FSAR Vol. 5, Ch. 9, p. 102). In performing its function, the system ventilates rooms 105, 113, and 115. Local temperature switches control the system to maintain room temperatures between 80°F and 104°F.

The thermal-hydraulic analysis performed shows that only a postulated main feedwater line break will cause these rooms to be exposed to the elevated temperature, pressure, and relative humidity specified. Additionally, the analysis did not consider the use of any redundant or non-redundant ventilating systems, thus retaining conservatism.

Of the equipment located in these rooms, only the high pressure injection pump motors are required to aid in mitigating the effects of the postulated high energy line break accident. The emergency procedures applicable to the main feedwater line break specify the need for high pressure injection only in response to too rapid a feeding of the steam generators upon auxiliary feed initiation, thus causing primary system depressurization. Furthermore, setpoint changes have been made, lowering the steam generator level maintained to preclude the need for high pressure injection.

The high pressure injection pump motor will be shown to survive the short term harsh environment in the highly unlikely event of its necessity to operate. No other equipment located in the ECCS pump rooms (105, 113, and 115) will be required to function during the harsh environment. It is therefore concluded that the ECCS pump room ventilation system is not required to function in the harsh steam environment resulting from the postulated main feedwater line rupture.

The cooler fan motor is exempt from qualification because it does not perform a safety-related function in the harsh steam environment caused by a main feedwater line rupture. Failure of the motor will not degrade other safety-related components because the ECCS room ventilation system is not needed to mitigate the effects of a high energy line break accident. Failure will not mislead the operator because the ventilation system operates automatically and only local indication is provided. Furthermore, the operator will not be concerned with ECCS pump room ventilation system status during high energy line break accidents.

2. A materials breakdown for the motor is continuing to be pursued through GE. The materials used in this analysis are from motors in the same series as those being qualified.

Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

ITEM #60

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 205H-008A  
Rev.: 2

NOTES

Prepared by: Jonina Yastis Date 3/7/83  
Checked by: Emilia Dorell Date 3/7/83

1. This component is a cooler fan motor in the ECCS pump room ventilation system. The ECCS pump room ventilation system's design function is to maintain a suitable environment for the electric motor drivers of high pressure injection pumps, decay heat pumps, and containment spray pumps (FSAR Vol. 5, Ch. 9, p. 102). In performing its function, the system ventilates rooms 105, 113, and 115. Local temperature switches control the system to maintain room temperatures between 80°F and 104°F.

The thermal-hydraulic analysis performed shows that only a postulated main feedwater line break will cause these rooms to be exposed to the elevated temperature, pressure, and relative humidity specified. Additionally, the analysis did not consider the use of any redundant or non-redundant ventilating systems, thus retaining conservatism.

Of the equipment located in these rooms, only the high pressure injection pump motors are required to aid in mitigating the effects of the postulated high energy line break accident. The emergency procedures applicable to the main feedwater line break specify the need for high pressure injection only in response to too rapid a feeding of the steam generators upon auxiliary feed initiation, thus causing primary system depressurization. Furthermore, setpoint changes have been made, lowering the steam generator level maintained to preclude the need for high pressure injection.

The high pressure injection pump motor will be shown to survive the short-term harsh environment in the highly unlikely event of its necessity to operate. No other equipment located in the ECCS pump rooms (105, 113, and 115) will be required to function during the harsh environment. It is therefore concluded that the ECCS pump room ventilation system is not required to function in the harsh steam environment resulting from the postulated main feedwater line rupture.

The cooler fan motor is exempt from qualification because it does not perform a safety-related function in the harsh steam environment caused by a main feedwater line rupture. Failure of the motor will not degrade other safety-related components because the ECCS room ventilation system is not needed to mitigate the effects of a high energy line break accident. Failure will not mislead the operator because the ventilation system operates automatically and only local indication is provided. Furthermore, the operator will not be concerned with ECCS pump room ventilation system status during high energy line break accidents.

2. A materials breakdown for the motor is continuing to be pursued through GE. The materials used in this analysis are from motors in the same series as those being qualified.

Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 205H-009A  
Rev.: 2

NOTES

Prepared by: Jarvis Morris Date 3/7/83  
Checked by: L. McDaniel Date 3/7/83

1. This component is a cooler fan motor in the ECCS pump room ventilation system. The ECCS pump room ventilation system's design function is to maintain a suitable environment for the electric motor drivers of high pressure injection pumps, decay heat pumps, and containment spray pumps (FSAR Vol. 5, Ch. 9, p. 102). In performing its function, the system ventilates rooms 105, 113, and 115. Local temperature switches control the system to maintain room temperatures between 80°F and 104°F.

The thermal-hydraulic analysis performed shows that only a postulated main feedwater line break will cause these rooms to be exposed to the elevated temperature, pressure, and relative humidity specified. Additionally, the analysis did not consider the use of any redundant or non-redundant ventilating systems, thus retaining conservatism.

Of the equipment located in these rooms, only the high pressure injection pump motors are required to aid in mitigating the effects of the postulated high energy line break accident. The emergency procedures applicable to the main feedwater line break specify the need for high pressure injection only in response to too rapid a feeding of the steam generators upon auxiliary feed initiation, thus causing primary system depressurization. Furthermore, setpoint changes have been made, lowering the steam generator level maintained to preclude the need for high pressure injection.

The high pressure injection pump motor will be shown to survive the short-term harsh environment in the highly unlikely event of its necessity to operate. No other equipment located in the ECCS pump rooms (105, 113, and 115) will be required to function during the harsh environment. It is therefore concluded that the ECCS pump room ventilation system is not required to function in the harsh steam environment resulting from the postulated main feedwater line rupture.

The cooler fan motor is exempt from qualification because it does not perform a safety-related function in the harsh steam environment caused by a main feedwater line rupture. Failure of the motor will not degrade other safety-related components because the ECCS room ventilation system is not needed to mitigate the effects of a high energy line break accident. Failure will not mislead the operator because the ventilation system operates automatically and only local indication is provided. Furthermore, the operator will not be concerned with ECCS pump room ventilation system status during high energy line break accidents.

2. A materials breakdown for the motor is continuing to be pursued through GE. The materials used in this analysis are from motors in the same series as those being qualified.

Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

ITEM #61



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 206H-004A  
Rev.: 2

NOTES

Prepared by: Sonia Hayes Date 3/7/83  
Checked by: L. McDaniel Date 3/7/83

1. The harsh environment seen by this component is due to a main steam to auxiliary feed pump turbine line break. This ventilation fan, MC0712, is a backup ventilation system for Room 428 located in Room 515. Cooling of the 1E Switchgear room 428 is normally supplied by equipment located in room 516. Both of these rooms are non-harsh and would not be affected by this high energy line break. Normal ventilation to Room 428 would not be affected by this HELB. Therefore, this motor would not be required to function in a steam environment and is exempt from qualification. It does not perform essential safety functions and its failure in the harsh environment would not mislead the operator.
2. A materials breakdown for the motor is continuing to be pursued through GE. The materials used in this analysis are from motors in the same series as those being qualified.

Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.

ITEM #62



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 210H-007  
Rev.: 2

Prepared by: Sonia Upadhyay Date: 3/7/83  
Checked by: H. M. Brown Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Low Pressure Injection	Operating Time	1 Year	40 Years	F	E-9, AB V-41C	Sequential Test	None
Plant ID No. MP0422	Temperature (°F)	177.0	Exempt	C-115	Note 1	N/A	None
Component: Decay Heat Pump Motor	Pressure (PSIA)	15.60	Exempt	C-115	Note 1	N/A	None
Manufacturer: Westinghouse	Relative Humidity (%)	100.0	Exempt	A	Note 1	N/A	None
Style Number: 71F19325	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Drives Decay Heat Pump	Radiation	2.67 x 10 <sup>6</sup> RADS	3.0 x 10 <sup>6</sup> RADS Note 2	T	E-9, AB V-41C	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 3	I	E-9 V-41C	Sequential Test	None
Service: Decay Heat Pump P42-2	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Room 115							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #65

Facility: Davis-Besse Unit 1  
Docket: 50-346

## SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 210H-006  
Rev.: 2

Prepared by: Sonia Yasin Date: 3/7/83  
Checked by: E. Wickford Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Low Pressure Injection	Operating Time	1 Year	40 Years	F	E-9, AB V-14C	Sequential Test	None
Plant ID No. MP0421	Temperature (°F)	130.0	Exempt	C-105	Note 1	N/A	None
Component: Decay Heat Pump Motor	Pressure (PSIA)	16.06	Exempt	C-105	Note 1	N/A	None
Manufacturer: Westinghouse	Relative Humidity (%)	100.0	Exempt	A	Note 1	N/A	None
Style Number: 71F19325	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Drives Decay Heat Pump	Radiation	1.9 x 10 <sup>6</sup> RADS	3.0 x 10 <sup>6</sup> RADS Note 2	T	E-9, AB V-41C	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 3	I	E-9 V-41C	Sequential Test	None
Service: Decay Heat Pump P42-1	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Room 105							
Flood Level Elev: N/A							
Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM # 66

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 210H-006A  
Rev.: 2

NOTES

Prepared by: Janae Woods Date 3/7/83  
Checked by: Mike Drall Date 3/7/83

1. This component is a motor that is used to drive a decay heat/low pressure injection pump. The motor does not perform a safety-related function in the harsh steam environment caused by a main feedwater line rupture. Failure of the motor in this environment will not be detrimental to plant safety because low pressure injection is not needed to mitigate the effects of high energy line break accidents. Failure of the motor will not mislead the operator because low pressure injection will not have been initiated.
2. Test Report E-9 does not take into account the radiation effects on the oil which is used as a bearing lubricant. As per Chevron Technical Bulletin of 10-1-78 (Reference AB), conventional oil will not be affected by radiation doses of less than  $1 \times 10^5$  RADS. For a dose of  $3 \times 10^6$  RADS, the viscosity is only increased by 1/100 of a centistoke to 1/50,000 of the solidification point.
3. Provided bearing oil is checked and changed regularly.

ITEM #66

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 211H-005  
Rev.: 2

Prepared by: Sonia Yacis Date: 3/7/83  
Checked by: Simulmon H Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: High Pressure Injection	Operating Time	1 Year	40 Years	F	E-9, AB V-41D	Sequential Test	None
Plant ID No. MP0582	Temperature (°F)	177.0	Note 4	C-115	N/A	N/A	Note 3
Component: High Pressure Injection Pump Motor	Pressure (PSIA)	15.60	Note 4	C-115	N/A	N/A	Note 3
Manufacturer: Westinghouse	Relative Humidity (%)	100.0	Note 4	A	N/A	N/A	Note 3
Style Number: RMR74L10278	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Drives High Pressure Injection Pump P58-2	Radiation	2.67 x 10 <sup>6</sup> RADS	3.0 x 10 <sup>6</sup> RADS Note 1	T	E-9, AB V-41D	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 2	I	E-9 V-41D	Sequential Test	None
Service: High Pressure Injection Pump P58-2	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 115							
Flood Level Elev: N/A							
Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input type="checkbox"/>							

ITEM # 67

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 211H-004  
Rev.: 2

Prepared by: Sandra Holis Date: 3/7/83  
Checked by: Andrew Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: High Pressure Injection	Operating Time	1 Year	40 Years	F	E-9, AB V-41D	Sequential Test	None
Plant ID No. MP0581	Temperature (°F)	130.0	Note 4	C-105	N/A	N/A	Note 3
Component: High Pressure Injection Pump Motor	Pressure (PSIA)	16.06	Note 4	C-105	N/A	N/A	Note 3
Manufacturer: Westinghouse	Relative Humidity (%)	100.0	Note 4	A	N/A	N/A	Note 3
Style Number: RME74L10300	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Drives High Pressure Injection Pump P58-1	Radiation	1.9 x 10 <sup>6</sup> RADS	3.0 x 10 <sup>6</sup> RADS Note 1	T	E-9, AB V-41D	Sequential Test	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 2	I	E-9 V-41D	Sequential Test	None
Service: High Pressure Injection Pump P58-1	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 105							
Flood Level Elev: N/A							
Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input type="checkbox"/>							

ITEM #68



Facility: Davis-Besse Unit 1  
Docket: 50-346

## SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 217H-004  
Rev.: 2

Prepared by: Sonia Ylesis Date: 3/7/83  
Checked by: L. McDonald Date: 3/11/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Containment Air Cooling Plant ID No. MC011	Operating Time	1 Year	1 Year 57 Days	F	M-2 ROC-22D V-22B	Simultaneous Test	None
Component: Cooler Fan (Motor)	Temperature (°F)	283.0	330.0	H, X	M-2 ROC-22D V-22B	Simultaneous Test	None
Manufacturer: Joy (Reliance)	Pressure (PSIA)	52.0	92.7	G, X	M-2 ROC-22D V-22B	Simultaneous Test	None
Model Number: 600276-17 Serial Number: GF-16182	Relative Humidity (%)	100.0	100.0	A	M-2 ROC-22D V-22B	Simultaneous Test	None
Function: Containment Air Cooling	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	M-2 ROC-22D V-22B CAL-40 Note 1	Simultaneous Test, Analysis	None
Accuracy: Spec: N/A Demon: N/A	Radiation	$1.7 \times 10^7$ RADS	$3.0 \times 10^8$ RADS	CAL-44	M-2 ROC-22D V-22B	Sequential Test	None
Service: Containment Air Cooler Fan 1	Aging	40 Years	40 Years	I	M-2 ROC-22D V-22B	Sequential Test	None
Location: Containment Flood Level Elev: 572'-2" Above Flood Level: Yes	Submergence	572'-2"	585'	B	M-11	N/A	None
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input checked="" type="checkbox"/>							

ITEM # 71

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 217K-005  
Rev.: 2

Prepared by: Sonia Y. [Signature] Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Containment Air Cooling Plant ID No. MC012	Operating Time	1 Year	1 Year 57 Days	F	M-2 ROC-22D V-22B	Simultaneous Test	None
Component: Cooler Fan (Motor)	Temperature (°F)	283.0	330.0	H, X	M-2 ROC-22D V-22B	Simultaneous Test	None
Manufacturer: Joy (Reliance)	Pressure (PSIA)	52.0	92.7	G, X	M-2 ROC-22D V-22B	Simultaneous Test	None
Model Number: 600276-17 Serial Number: GF-16183	Relative Humidity (%)	100.0	100.0	A	M-2 ROC-22D V-22B	Simultaneous Test	None
Function: Containment Air Cooling	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	M-2 ROC-22D V-22B CAL-40 Note 1	Simultaneous Test, Analysis	None
Accuracy: Spec: N/A Devon: N/A	Radiation	$1.7 \times 10^7$ RADS	$3.0 \times 10^8$ RADS	CAL-44	M-2 ROC-22D V-22B	Sequential Test	None
Service: Containment Air Cooler Fan 2	Aging	40 Years	40 Years	I	M-2 ROC-22D V-22B	Sequential Test	None
Location: Containment	Submergence	572'-2"	585'	B	M-11	N/A	None
Flood Level Elev: 572'-2" Above Flood Level: Yes							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #71

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 217H-006  
Rev.: 2

Prepared by: Sara Upas Date: 3/7/83  
Checked by: L. McDonald Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Containment Air Cooling Plant ID No. MC013	Operating Time	1 Year	1 Year 57 Days	F	M-2 ROC-22D V-22B	Simultaneous Test	None
Component: Cooler Fan (Motor)	Temperature (°F)	283.0	330.0	H, X	M-2 ROC-22D V-22B	Simultaneous Test	None
Manufacturer: Joy (Reliance)	Pressure (PSIA)	52.0	92.7	G, X	M-2 ROC-22D V-22B	Simultaneous Test	None
Model Number: 600276-17 Serial Number: GF-16184	Relative Humidity (%)	100.0	100.0	A	M-2 ROC-22D V-22B	Simultaneous Test	None
Function: Containment Air Cooling							
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	M-2 ROC-22D V-22B CAL-40 Note 1	Simultaneous Test, Analysis	None
Service: Containment Air Cooler Fan 3							
Location: Containment	Radiation	1.7 x 10 <sup>7</sup> RADS	3.0 x 10 <sup>8</sup> RADS	CAL-44	M-2 ROC-22D V-22B	Sequential Test	None
Flood Level Elev: 572'-2" Above Flood Level: Yes	Aging	40 Years	40 Years	I	M-2 ROC-22D V-22B	Sequential Test	None
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input checked="" type="checkbox"/>	Submergence	572'-2"	585'	B	M-11	N/A	None

ITEM #71

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 215H-005  
Rev.: 2

Prepared by: Sara Lopez Date: 3/7/83  
Checked by: Emilia Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Hydrogen Dilution Plant ID No. MC0561	Operating Time	1 Year	1 Year 57 Days	F	M-2 ROC-22D V-22A	Simultaneous Test	None
Component: Recirculation Fan (Motor)	Temperature (°F)	283.0	330.0	H, X	M-2 ROC-22D V-22A	Simultaneous Test	None
Manufacturer: Joy (Reliance)	Pressure (PSIA)	52.0	92.7	G, X	M-2 ROC-22D V-22A	Simultaneous Test	None
Model Number: 500772-498 Serial Number: GF-20662	Relative Humidity (%)	100.0	100.0	A	M-2 ROC-22D V-22A	Simultaneous Test	None
Function: Mixing of Ctmt. Atmosphere for H <sub>2</sub> Dilution and Purge	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	M-2 ROC-22D V-22A	Simultaneous Test, Analysis	None
Accuracy: Spec: N/A Demon: N/A					CAL-40 Note 1		
Service: Containment Recirculation Fan 1	Radiation	1.7 x 10 <sup>7</sup> RADS	3.0 x 10 <sup>8</sup> RADS	CAL-44	M-2 ROC-22D V-22A	Sequential Test	None
Flood Level Elev: 572'-2" Above Flood Level: Yes	Aging	40 Years	40 Years	I	M-2 ROC-22D V-22A	Sequential Test	None
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input checked="" type="checkbox"/>	Submergence	572'-2"	642'-5"	B	M-19	N/A	None

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 215H-006  
Rev.: 2

Prepared by: Jonia Yates Date: 2/7/83  
Checked by: Emile D. J. Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Hydrogen Dilution	Operating Time	1 Year	1 Year 57 Days	F	M-2 ROC-22D V-22A	Simultaneous Test	None
Plant ID No. MC0562							
Component: Recirculation Fan (Motor)	Temperature (°F)	283.0	330.0	H, X	M-2 ROC-22D V-22A	Simultaneous Test	None
Manufacturer: Joy (Reliance)	Pressure (PSIA)	52.0	92.7	G, X	M-2 ROC-22D V-22A	Simultaneous Test	None
Model Number: 500772-498							
Serial Number: GF-20663	Relative Humidity (%)	100.0	100.0	A	M-2 ROC-22D V-22A	Simultaneous Test	None
Function: Mixing of Cmt. Atmosphere for H <sub>2</sub> Dilution and Purge							
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	Boric Acid 1800 ppm pH 5.0	Boric Acid 1800 ppm pH 5.0	A	M-2 ROC-22D V-22A CAL-40 Note 1	Simultaneous Test, Analysis	None
Service: Containment Recirculation Fan 2							
Location: Containment	Radiation	1.7 x 10 <sup>7</sup> RADS	3.0 x 10 <sup>8</sup> RADS	CAL-44	M-2 ROC-22D V-22A	Sequential Test	None
Flood Level Elev: 572'-2"							
Above Flood Level: Yes	Aging	40 Years	40 Years	I	M-2 ROC-22D V-22A	Sequential Test	None
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>	Submergence	572'-2"	640'-6"	B	M-12	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM # 72



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 211H-014A  
Rev.: 2

NOTES

Prepared by: Janis G. Davis Date: 3/7/83  
Checked by: Amie Smith Date: 3/7/83

1. This component is scheduled to be replaced by the first refueling outage subsequent to component on-site availability.

The component is a pressure differential indicating switch used to start the dc lube oil pump motor which is used in providing lubrication for the high pressure injection pumps. The harsh environment specified for Room 105 is caused by a postulated main feedwater line break in Room 303. The high pressure injection pumps may be required to aid in the HELB accident.

The emergency procedures applicable to the main feedwater line break specify the need for high pressure injection only in response to an overfeeding of the steam generators upon auxiliary feed initiation, thus causing primary system depressurization. Furthermore, setpoint changes have been made, lowering the steam generator level maintained, to preclude the need for high pressure injection. This lack of required operation of the HPI system would also eliminate the necessity of the pressure differential indicating switch.

The elevated temperature and pressure values seen by the pressure differential indicating switch are of a relatively short duration and magnitude. The pressure spike peaks at 16.06 psia in 1.75 seconds. As a result, the effects of the 100% relative humidity would be negligible due to the small pressure increase and also due to the sealing capability of the pressure differential indicating switch. The temperature peak of 130°F occurs in 19 seconds but returns to ambient in 24 minutes. The increase in the temperature is not instantaneous as it occurs gradually to the peak and would therefore not impact switch operation. The radiation value specified is due to the post-LOCA recirculation of fluids. This recirculation would occur close to or at the end of the functioning of the high pressure injection pumps if required. Assuming common switch materials are used in the pressure differential indicating switch, its failure in the harsh environment is highly unlikely since the radiation value is significantly low.

In the highly unlikely event of failure of this pressure differential indicating switch, a redundant HPI train, located in Room 115, is available to mitigate the HELB if required. Although the environment in Room 115 is elevated due to the break in Room 303, the temperature peaks at only 99°F, and the pressure peaks at only 15.6 psia (see CAL-35). These values are less than those in Room 115, and they are very close to being considered non-harsh. This fact introduces a significantly higher probability of the component remaining functional. Based on our discussion above and coupled with the likely availability of a redundant HPI train, interim operation is justified.

2. One-year operating time is used as a conservative maximum specification.

ITEM # 82

Facility: Davis-Besse Unit 1  
Docket: 50-246

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 211H-015A

Rev.: 2

NOTES

Prepared by: Sonia Abreu Date: 3/7/83  
Checked by: MacDonald Date: 3/7/83

1. This component is scheduled to be replaced by the first refueling outage subsequent to component on-site availability.

The component is a pressure differential indicating switch used to start the dc lube oil pump motor which is used in providing lubrication for the high pressure injection pumps. The harsh environment specified for Room 115 is caused by a postulated main feedwater line break in Room 314. The high pressure injection pumps may be required to aid in the HELB accident.

The emergency procedures applicable to the main feedwater line break specify the need for high pressure injection only in response to an overfeeding of the steam generators upon auxiliary feed initiation, thus causing primary system depressurization. Furthermore, setpoint changes have been made, lowering the steam generator level maintained, to preclude the need for high pressure injection. This lack of required operation of the HPI system would also eliminate the necessity of the pressure differential indicating switch.

The elevated temperature and pressure values seen by the pressure differential indicating switch are of a relatively short duration and magnitude. The pressure spike peaks at 15.6 psia in 1.7 seconds. As a result, the effects of the 100% relative humidity would be negligible due to the small pressure increase and also due to the sealing capability of the pressure differential indicating switch. The temperature peak of 177°F occurs in 19 seconds but returns to ambient in 6.7 minutes. The increase in the temperature is not instantaneous as it occurs gradually to the peak and would therefore not impact switch operation. The radiation value specified is due to the post-LOCA recirculation of fluids. This recirculation would occur close to or at the end of the functioning of the high pressure injection pumps if required. Assuming common switch materials are used in the pressure differential indicating switch, its failure in the harsh environment is highly unlikely since the radiation value is significantly low.

In the highly unlikely event of failure of this pressure differential indicating switch, a redundant HPI train, located in Room 105, is available to mitigate the HELB if required. Although the environment in Room 105 is elevated due to the break in Room 314, the temperature peaks at only 112.5°F, and the pressure peaks at only 15.2 psia (see CAL-35). These values are less than those in Room 115, and they are very close to being considered non-harsh. This fact introduces a significantly higher probability of the component remaining functional. Based on our discussion above and coupled with the likely availability of a redundant HPI train, interim operation is justified.

2. One-year operating time is used as a conservative maximum specification.

ITEM #83

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 218H-013A  
Rev.: 2

NOTES

Prepared by: Jana Moses Date: 3/7/83  
Checked by: Linna D. Smith Date: 3/7/83

1. FSAR RPS Instrument Response Time Table gives N/A for containment pressure. Based on conservative engineering judgement, a specification operating time of 1 hour is being used.
2. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
3. The only harsh environment seen is increased radiation due to recirculated fluids. This component monitors containment pressure but is located outside containment. A sensing line allows containment atmospheric pressure to be measured by a sealed sensing element within the switch. This sensing element actuates the switch mechanism. None of the intervals of this device will be exposed to the LOCA environment. The sensing line is normally filled with air and, during a LOCA, the air in the sensing line will be compressed by the inside containment steam-air-pressure mixture rise, but there will be no flow in the sensing line and no steam-air-chemical spray mixture will enter the device.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #85

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 223H-016A  
Rev.: 2

NOTES

Prepared by: Jonas Upais Date 3/1/83  
Checked by: J. Madson Date 3/2/83

1. One-year operating time is used as a conservative maximum specification.
2. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
3. This component is a pressure switch that provides overpressurization protection for the containment post-accident radiation monitor. The harsh environment seen by this component is due to a main feedline break. This component monitors containment pressure but is located outside containment. A sensing line allows containment atmospheric pressure to be measured by a sealed sensing element within the switch. This sensing element actuates the switch mechanism. None of the internals of this device will be exposed to the LOCA environment. The sensing line is normally filled with air and, during a LOCA, the air in the sensing line will be compressed by the inside containment steam-air-pressure mixture rise but there will be no flow in the sensing line and no steam-air-chemical spray mixture will enter the device.  
  
The switch is exempt from qualification in the harsh steam environment because the containment post-accident radiation monitor is only needed during loss of coolant accidents. Since the monitor will not be used during a high energy line break, switch failure will not degrade other safety-related functions. The switch does not provide an indication function so its failure will not mislead the operator.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM#89

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 223H-015A  
Rev.: 2

NOTES

Prepared by: Sonia Upadhyay Date 3/7/83  
Checked by: [Signature] Date 3/7/83

1. One-year operating time is used as a conservative maximum specification.
2. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
3. This component is a pressure switch that provides overpressurization protection for the containment post-accident radiation monitor. The harsh environment seen by this component is due to a main feedline break. This component monitors containment pressure but is located outside containment. A sensing line allows containment atmospheric pressure to be measured by a sealed sensing element within the switch. This sensing element actuates the switch mechanism. None of the internals of this device will be exposed to the LOCA environment. The sensing line is normally filled with air and, during a LOCA, the air in the sensing line will be compressed by the inside containment steam-air-pressure mixture rise but there will be no flow in the sensing line and no steam-air-chemical spray mixture will enter the device.  
  
The switch is exempt from qualification in the harsh steam environment because the containment post-accident radiation monitor is only needed during loss of coolant accidents. Since the monitor will not be used during a high energy line break, switch failure will not degrade other safety-related functions. The switch does not provide an indication function so its failure will not mislead the operator.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #90



ility: Davis-Besse Unit 1  
 ket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-061  
 Rev.: 2

pared by: Sonia N. Jones Date: 3/7/83  
 cked by: J. M. McDonald Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
stem: Generic IE Elec- trical Components ant ID No. CDF11C mponent: Disconnect witch Cabinet (CD) ote (1) Terminal Block	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
	Temperature (°F)	198.0	307.0	C-236	V-36B E-14	Simultaneous Test	None
ufacturer: abinet: General Electric lock: The States Co.	Pressure (PSIA)	15.51	61.0	C-236	V-36B E-14	Simultaneous Test	None
del Number: ZWM-250 nction: Switching	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
curacy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
rvice: Electrical Control cation: Auxiliary Bldg. Rm. 236	Radiation	1.97 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>8</sup> RADS	T	Note 2	Analysis	None
od Level Elev: N/A ove Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
eded for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

City: Davis-Besse Unit 1  
 Net: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-321  
 Rev.: 2

Prepared by: Janis Yoonis Date: 3/7/83  
 Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
Item: Generic IE Elec- trical Components Int ID No. RC2825	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Component: Relay Cabinet (C) (Note 1: Terminal Block)	Temperature (°F)	192.0	307.0	C-208	V-36B E-14	N/A	None
Manufacturer: Cabinet: Electro-Technic Block: The States Co.	Pressure (PSI)	16.25	61.0	C-208	V-36B E-14	N/A	None
Rel Number: ZWM-250	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	N/A	None
Function: Auxiliary Relay	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Radiation	1.97 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>8</sup> RADS	T	Note 2	Analysis	None
Device: Electrical Control	Ageing	40 Years	40 Years	I	Note 2	Analysis	None
Location: Auxiliary Bldg. Rm. 208	Submergence	N/A	N/A	N/A	N/A	N/A	None
Mod Level Elev: N/A Max Flood Level: N/A							
Used for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #102

ility: Davis-Besse Unit 1  
ket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-329  
Rev.: 2

pared by: Squire Morris Date: 3/7/83  
cked by: W. J. D. Smith Date: 3/7/83

UIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
stem: Generic 1E Elec- trical Components ant ID No. RC3801	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
mponent: Relay Cabinet RC) (Note 1) Terminal lock	Temperature (°F)	218.0	307.0	C-303	V-36B E-14	Simultaneous Test	None
nufacturer: abinet: General Electric lock: The States Co.	Pressure (PSIA)	17.16	61.0	C-303	V-36B E-14	Simultaneous Test	None
del Number: ZWM-250	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
nction: Auxiliary Relay	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
curacy: Spec: N/A Demon: N/A	Radiation	$1.16 \times 10^6$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
rvice: Electrical Control	Aging	40 Years	40 Years	I	Note 2	Analysis	None
cation: Auxiliary Bldg. Rm. 303	Submergence	N/A	N/A	N/A	N/A	N/A	None
ood Level Elev: N/A ve Flood Level: N/A							
eded for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ility: Davis-Besse Unit 1  
 ket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-328  
 Rev.: 2

pared by: Sonia A. Jones Date: 3/7/83  
 cked by: L. M. Jones Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components Plant ID No. RC3706 Component: Relay Cabinet RC) (Note 1) Terminal block	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Manufacturer: Cabinet: GE Block: The States Co.	Temperature (°F)	208.0	307.0	C-304	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250	Pressure (PSIA)	15.83	61.0	C-304	V-36B E-14	Simultaneous Test	None
Function: Switching & Control	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Service: Electrical Control Location: Auxiliary Bldg. Rm. 304	Radiation	$6.53 \times 10^4$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Good Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Used for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #104

ility: Davis-Besse Unit 1  
 ket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-054  
 Rev.: 2

pared by: Sonia Y. V. V. Date: 3/7/13  
 cked by: Mike P. P. Date: 3/7/13

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components ant ID No. CD211B	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Component: Disconnect Switch Cabinet (CD) Note 1) Terminal Block Manufacturer: Cabinet: GE Block: The States Co.	Temperature (°F)	208.0	307.0	C-304	V-36B E-14	Simultaneous Test	None
	Pressure (PSIA)	15.33	61.0	C-304	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Function: Switching & Control	Chemical Exposure	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Radiation	$6.53 \times 10^4$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Service: Electrical Control Location: Auxiliary Bldg. Rm. 304	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Good Level Elev: N/A Above Flood Level: N/A	Submergence	N/A	N/A	N/A	N/A	N/A	None
Used for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #104



ility: Davis-Besse Unit 1  
ket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-053  
Rev.: 2

pared by: Erica Lopez Date: 3/7/83  
cked by: LMC/Donnell Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components Plant ID No. CDE11A-2	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Component: Disconnect Switch Cabinet (CD) Note 1) Terminal Block Manufacturer: Cabinet: GE Block: The States Co.	Temperature (°F)	208.0	307.0	C-304	V-36B E-14	Simultaneous Test	None
	Pressure (PSIA)	15.83	61.0	C-304	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Function: Switching & Control	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Radiation	$6.53 \times 10^4$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Service: Electrical Control	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Location: Auxiliary Bldg. Rm. 304	Submergence	N/A	N/A	N/A	N/A	N/A	None
Good Level Elev: N/A Above Flood Level: N/A							
Used for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #104

Facility: Davis-Besse Unit 1  
 Pocket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-052  
 Rev.: 2

Prepared by: Jana Jones Date: 3/7/83  
 Checked by: Jim McDowell Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Plant ID No. CDE11A							
Component: Disconnect Switch Cabinet (CD) (Note 1) Terminal Block	Temperature (°F)	208.0	307.0	C-304	V-36B E-14	Simultaneous Test	None
Manufacturer: Cabinet: GE Block: The States Co.	Pressure (PSIA)	15.83	61.0	C-304	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Function: Switching & Control							
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Service: Electrical Control							
Location: Auxiliary Bldg. Rm. 304	Radiation	6.53 x 10 <sup>4</sup> RADS	1.0 x 10 <sup>8</sup> RADS	T	Note 2	Analysis	None
Flood Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Needed for:							
Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #104

ility: Davis-Besse Unit 1  
ket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-055  
Rev.: 2

pared by: Sonia A. Davis Date: 3/7/83  
cked by: SMH/MD Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Ant ID No. CDE11B-1							
Component: Disconnect							
Switch Cabinet (CD)	Temperature (°F)	208.0	307.0	C-304	V-36B E-14	Simultaneous Test	None
Note 1) Terminal Block							
Manufacturer:							
Cabinet: GE	Pressure (PSIA)	15.83	61.0	C-304	V-36B E-14	Simultaneous Test	None
Block: The States Co.							
Model Number: ZWM-250							
Function: Switching & Control	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Accuracy: Spec: N/A Demon: N/A							
Service: Electrical Control	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 304							
	Radiation	$6.53 \times 10^4$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Good Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Used for:							
Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None

ITEM #104

ility: Davis-Besse Unit 1  
ket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221E-056  
Rev.: 2

pared by: Sonia "Belle" Date: 3/7/83  
cked by: Mike Dand Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components ant ID No. CDE11B-2 omponent: Disconnect witch Cabinet (CD) Note 1) Terminal Block	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Manufacturer: abinet: GE lock: The States Co.	Temperature (°F)	208.0	307.0	C-304	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250	Pressure (PSIA)	15.83	61.0	C-304	V-36B E-14	Simultaneous Test	None
Function: Switching & Control	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Service: Electrical Control Location: Auxiliary Bldg. Rm. 304	Radiation	$6.53 \times 10^4$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Good Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Used for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #104



ility: Davis-Besse Unit 1  
cket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-057  
Rev.: 2

pared by: Sara Yano Date: 3/7/83  
acked by: W. McDonald Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Elec- trical Components	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Plant ID No. CDE11C Component: Disconnect Switch Cabinet (CD) (Note 1) Terminal Block	Temperature (°F)	208.0	307.0	C-304	V-36B E-14	Simultaneous Test	None
Manufacturer: Cabinet: GE Block: The States Co.	Pressure (PSIA)	15.83	61.0	C-304	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Function: Switching & Control	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Radiation	$6.53 \times 10^4$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Service: Electrical Control	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Location: Auxiliary Bldg. Rm. 304	Submergence	N/A	N/A	N/A	N/A	N/A	None
Flood Level Elev: N/A Above Flood Level: N/A							
Used for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #104



ility: Davis-Besse Unit 1  
ket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-063  
Rev.: 2

pared by: Sonia Yocis Date: 3/7/83  
cked by: Mike Donnell Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic 1E Electrical Components Plant ID No. CDYE2 Component: Disconnect Switch Cabinet (CD) Note 1) Terminal Block	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Manufacturer: The States Co. Model Number: ZWH-250	Temperature (°F)	208.0	307.0	C-304	V-36B E-14	Simultaneous Test	None
Function: Switching & Control	Pressure (PSIA)	15.83	61.0	C-304	V-36B E-14	Simultaneous Test	None
Accuracy: Spec: N/A Demon: N/A	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Service: Electrical Control Location: Auxiliary Bldg. Rm. 304	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Good Level Elev: N/A Above Flood Level: N/A	Radiation	$6.53 \times 10^4$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Used for: Hot Shutdown <input checked="" type="checkbox"/>	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Cold Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None

ITEM #104

ility: Davis-Besse Unit 1  
ket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-323  
Rev.: 2

pared by: Sonia Y. Davis Date: 3/7/83  
cked by: D. J. Davis Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components Plant ID No. RC3701	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Component: Relay Cabinet (RC) (Note 1) Terminal block Manufacturer: GE Cabinet: GE Lock: The States Co.	Temperature (°F)	221.0	307.0	C-314	V-36B E-14	Simultaneous Test	None
	Pressure (PSIA)	19.76	61.0	C-314	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250 Function: Auxiliary Relay	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Service: Electrical Control Location: Auxiliary Bldg. Rm. 314	Radiation	1.0 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>8</sup> RADS	T	Note 2	Analysis	None
Good Level Elev: N/A Over Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Used for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

ITEM #105

ility: Davis-Besse Unit 1  
 ket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-324  
 Rev.: 2

pared by: Julia Norris Date: 2/7/83  
 cked by: W. J. D. D. Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components Plant ID No. RC3702	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Component: Relay Cabinet (RC) (Note 1) Terminal block Manufacturer: GE Cabinet: GE Block: The States Co.	Temperature (°F)	221.0	307.0	C-314	V-36B E-14	Simultaneous Test	None
	Pressure (PSIA)	19.76	61.0	C-314	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250 Function: Auxiliary Relay	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Service: Electrical Control Location: Auxiliary Bldg. Rm. 314	Radiation	$1.0 \times 10^6$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Good Level Elev: N/A Low Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Used for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

ility: Davis-Besse Unit 1  
ket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-325  
Rev.: 2

pared by: Sonia Lopez, Date: 3/7/83  
cked by: [Signature], Date: 3/7/83

UIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
stem: Generic IE Elec- trical Components ant ID No. RC3703	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
mponent: Relay Cabinet RC) (Note 1) Terminal lock	Temperature (°F)	221.0	307.0	C-314	V-36B E-14	Simultaneous Test	None
nufacturer: abinet: GE lock: The States Co.	Pressure (PSIA)	19.76	61.0	C-314	V-36B E-14	Simultaneous Test	None
del Number: ZWM-250	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
nction: Auxiliary Relay							
curacy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
rvice: Electrical Control							
cation: Auxiliary Bldg. Rm. 314	Radiation	1.0 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>8</sup> RADS	T	Note 2	Analysis	None
ood Level Elev: N/A ove Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
eded for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

ility: Davis-Besse Unit 1  
 ket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221B-326  
 Rev.: 2

pared by: Sonia Harris Date: 3/7/83  
 cked by: DMH/JP Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components Plant ID No. RC3704	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Component: Relay Cabinet (RC) (Note 1) Terminal Block Manufacturer: Cabinet: GE Block: The States Co.	Temperature (°F)	221.0	307.0	C-314	V-36B E-14	Simultaneous Test	None
	Pressure (PSIA)	19.76	61.0	C-314	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250 Function: Auxiliary Relay	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Service: Electrical Control Location: Auxiliary Bldg. Rm. 314	Radiation	1.0 x 10 <sup>6</sup> RADS	1.0 x 10 <sup>8</sup> RADS	T	Note 2	Analysis	None
Flood Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Exposed for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							



ility: Davis-Besse Unit 1  
 ket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-327  
 Rev.: 2

pared by: Sonia Hood Date: 2/7/83  
 cked by: JM DeWitt Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Generic IE Electrical Components Plant ID No. RC3705	Operating Time	1 Year	1.1 Years	F	Note 2, 3	Analysis	None
Component: Relay Cabinet (RC) (Note 1) Terminal block Manufacturer: Cabinet: GE Block: The States Co.	Temperature (°F)	221.0	307.0	C-314	V-36B E-14	Simultaneous Test	None
	Pressure (PSIA)	19.76	61.0	C-314	V-36B E-14	Simultaneous Test	None
Model Number: ZWM-250 Function: Auxiliary Relay	Relative Humidity (%)	100.0	100.0	A	V-36B E-14	Simultaneous Test	None
Accuracy: Spec: N/A Demon: N/A	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Service: Electrical Control Location: Auxiliary Bldg. Rm. 314	Radiation	$1.0 \times 10^6$ RADS	$1.0 \times 10^8$ RADS	T	Note 2	Analysis	None
Flood Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years	I	Note 2	Analysis	None
Used for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input checked="" type="checkbox"/>							

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-026  
Rev.: 2

Prepared by: Jana Moses Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	15 Seconds	Exempt	K	Note 2	Analysis	None
Plant ID No. SV394	Temperature (°F)	282.0	Exempt	C-601	Note 2	N/A	None
Component: Solenoid Valve							
Manufacturer: ASCO	Pressure (PSIA)	17.0	Exempt	C-601	Note 2	N/A	None
Model Number: HTB320A108							
Function: Steam Generator Isolation	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Accuracy: Spec: N/A Demon: N/A							
Service: Main Steam Line 1 Warm-Up Drain Isolation Valve	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 601	Radiation	N/A	N/A	N/A	N/A	N/A	None
Flood Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Needed for: Hot Shutdown <input checked="" type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None
Cold Shutdown <input type="checkbox"/>							

ITEM #181

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-026A  
Rev.: 2

NOTES

Prepared by: Tania Upas Date: 3/7/83  
Checked by: LMC/D Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve controls the air supply to MS394 (an air-operated main steam line warm-up drain isolation valve). The only safety-related function performed by this valve is the isolation of a steam generator during both a loss of coolant accident and a high energy line break accident.

This solenoid valve is exempt from qualification because its failure will perform the safety-related function of insuring steam generator isolation. Failure of the solenoid valve will cause its associated air-operated valve to move to (or more likely to remain in) its normally closed, fail-safe position. This action performs the desired safety-related function of isolating the main steam line from the condenser. This isolation is a normal operating condition, because the valve is only opened during main steam line warmup and cooldown.

The air-operated valve's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the valve's position indicating (limit) switches. Since the solenoid valve is part of a separate 125 v.d.c. control circuit, its failure can not affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.

3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #181

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-025  
Rev.: 2

Prepared by: Sonia Olesio Date: 3/5/83  
Checked by: Michael Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	15 Seconds	Exempt	K	Note 2	Analysis	None
Plant ID No. SV375	Temperature (°F)	344.0	Exempt	C-602	Note 2	N/A	None
Component: Solenoid Valve							
Manufacturer: ASCO	Pressure (PSIA)	20.0	Exempt	C-602	Note 2	N/A	None
Model Number: HTB320A108							
Function: Steam Generator Isolation	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Accuracy: Spec: N/A Demon: N/A							
Services: Main Steam Line 2 Warm-Up Drain Isolation Valve	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 602	Radiation	N/A	N/A	N/A	N/A	N/A	None
Flood Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-025A  
Rev.: 2

NOTES

Prepared by: Sonia Hayes Date: 3/7/83  
Checked by: Mike Dred Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve controls the air supply to MS375 (an air-operated main steam line warm-up drain isolation valve). The only safety-related function performed by this valve is the isolation of a steam generator during both a loss of coolant accident and a high energy line break accident.

This solenoid valve is exempt from qualification because its failure will perform the safety-related function of insuring steam generator isolation. Failure of the solenoid valve will cause its associated air-operated valve to move to (or more likely to remain in) its normally closed, fail-safe position. This action performs the desired safety-related function of isolating the main steam line from the condenser. This isolation is a normal operating condition, because the valve is only opened during main steam line warmup and cooldown.

The air-operated valve's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the valve's position indicating (limit) switches. Since the solenoid valve is part of a separate 125 v.d.c. control circuit, its failure can not affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.

3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #182



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-020  
Rev.: 2

Prepared by: Sara Young Date: 3/7/83  
Checked by: Ed M. Brown Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV101A	Temperature (°F)	282.0	Exempt	C-601	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	17.0	Exempt	C-601	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTXB320A20V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 1 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 601							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>							

ITEM # 184

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-020A  
Rev.: 2

NOTES

Prepared by: Sonia Yoo Date: 3/7/83  
Checked by: William D. A. Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM#184

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-021  
Rev.: 2

Prepared by: Jana Yocis Date: 3/7/83  
Checked by: L. J. McDonald Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV101B	Temperature (°F)	282.0	Exempt	C-601	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	17.0	Exempt	C-601	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTXB320A20V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 1 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 601							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>							

ITEM #184

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-021A  
Rev.: 2

NOTES

Prepared by: Sonia Yacobi Date: 2/7/83  
Checked by: L. McDonald Date: 3/1/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #184

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-022  
Rev.: 2

Prepared by: Sonia Ghosh Date: 3/7/83  
Checked by: E. M. B. B. B. Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV101C	Temperature (°F)	282.0	Exempt	C-601	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	17.0	Exempt	C-601	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTX8320A20V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 1 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 601							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>							

ITEM #184



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-022A  
Rev.: 2

NOTES

Prepared by: Sara Martin Date: 3/1/83  
Checked by: Jim Martin Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM#184

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-023  
Rev.: 2

Prepared by: Sara N. Nis Date: 3/7/83  
Checked by: Samuel A. Nis Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV101D	Temperature (°F)	292.0	Exempt	C-601	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	17.0	Exempt	C-601	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTX8320A20V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 1 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 601							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>							

ITEM#184

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-023A  
Rev.: 2

NOTES

Prepared by: Sonia Young Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM#184

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-024  
Rev.: 2

Prepared by: Sonia Yeas Date: 3/7/83  
Checked by: Erica Smith Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV101E	Temperature (°F)	282.0	Exempt	C-601	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	17.0	Exempt	C-601	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTXB320A20V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 1 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 601							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>							

ITEM #184

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-014A  
Rev.: 2

NOTES

Prepared by: Samia Jones Date: 3/7/83  
Checked by: William Derr Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #185



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-024A  
Rev.: 2

NOTES

Prepared by: Sonia Yoo Date: 3/7/83  
Checked by: SMC Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #184

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-014  
Rev.: 2

Prepared by: Enria Ayres Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV100A	Temperature (°F)	344.0	Exempt	C-602	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	20.0	Exempt	C-602	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTXB320A20V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 2 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 602							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input type="checkbox"/>							

ITEM #185

Facility: Davis-Besse Unit 1  
Docket: 50-346

# SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-015  
Rev.: 2

Prepared by: Sonia Lopez Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV100B	Temperature (°F)	344.0	Exempt	C-602	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	20.0	Exempt	C-602	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTXB32 0A2 0V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 2 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 602							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/>							
Cold Shutdown <input type="checkbox"/>							

ITEM #185

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-015A  
Rev.: 2

NOTES

Prepared by: Jana K. Davis Date: 3/7/83  
Checked by: L. McDonald Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #185

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-016  
Rev.: 2

Prepared by: Sara Harris Date: 3/7/83  
Checked by: Ed McDonald Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV100C	Temperature (°F)	344.0	Exempt	C-602	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	20.0	Exempt	C-602	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTXB320A20V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 2 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 602							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>							

ITEM #185



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-016A  
Rev.: 2

NOTES

Prepared by: Jana Yoda Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM#185

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-017  
Rev.: 2

Prepared by: Sonia Moad Date: 3/7/83  
Checked by: [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV100D	Temperature (°F)	344.0	Exempt	C-602	Note 2	N/A	None
Component: Solenoid Valve	Pressure (PSIA)	20.0	Exempt	C-602	Note 2	N/A	None
Manufacturer: ASCO	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Model Number: HTXB 32 0A20V	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Function: Steam Generator Isolation	Radiation	N/A	N/A	N/A	N/A	N/A	None
Accuracy: Spec: N/A Demon: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Service: Main Steam Line 2 Isolation Valve	Submergence	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 602							
Flood Level Elev: N/A Above Flood Level: N/A							
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>							

ITEM #185

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-017A  
Rev.: 2

NOTES

Prepared by: Senia Morris Date: 3/7/03  
Checked by: Mike Donohue Date: 3/7/03

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #185

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-018  
Rev.: 2

Prepared by: Sonia Morris Date: 3/7/83  
Checked by: Samuel J. [Signature] Date: 3/7/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
System: Steam	Operating Time	40 Seconds	Exempt	Z	Note 2	N/A	None
Plant ID No. SV100E	Temperature (°F)	344.0	Exempt	C-602	Note 2	N/A	None
Component: Solenoid Valve							
Manufacturer: ASCO	Pressure (PSIA)	20.0	Exempt	C-602	Note 2	N/A	None
Model Number: HTXB320A20V							
Function: Steam Generator Isolation	Relative Humidity (%)	100.0	Exempt	A	Note 2	N/A	None
Accuracy: Spec: N/A Demon: N/A							
Service: Main Steam Line 2 Isolation Valve	Chemical Spray	N/A	N/A	N/A	N/A	N/A	None
Location: Auxiliary Bldg. Rm. 602	Radiation	N/A	N/A	N/A	N/A	N/A	None
Flood Level Elev: N/A Above Flood Level: N/A	Aging	40 Years	40 Years Note 4	I	Note 3	Analysis	None
Needed for: Hot Shutdown <input checked="" type="checkbox"/> Cold Shutdown <input type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	None

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 208H-018A

Re: 2

NOTES

Prepared by: Janis Yoss Date: 3/7/83  
Checked by: LMC Date: 3/7/83

1. This solenoid valve is scheduled for replacement by the first refueling outage subsequent to component on-site availability.
2. This solenoid valve supplies control air to the main steam line isolation valve (MSIV). The solenoid valve is exempt from qualification because its failure will perform the intended safety-related function of closing the MSIV. In the event of an accident (HELB or LOCA), the solenoid valve is de-energized causing the MSIV to move to its fail-safe closed position. Should the solenoid fail, it will de-energize and close the MSIV. Since it is unnecessary to operate the isolation valve after it closes, failure of the solenoid valve will not degrade other safety-related functions.  
  
The MSIV's position indicating lights are powered by a 120 v.a.c. essential instrument bus. These lights are operated by the MSIV's position indicating (limit) switches. Since the solenoid valve is part of a separate control circuit, its failure cannot affect the operation of these devices. Solenoid failure will not mislead the operator because valve position indication will be unaffected.
3. Materials evaluation conducted. Materials sensitive to radiation and/or thermal aging summarized on attached evaluation.
4. Materials and/or components sensitive to thermal aging will be replaced as per maintenance and replacement schedules to assure that associated component will maintain functional operability in harsh environments.

ITEM #185



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-027A  
Rev.: 2

NOTES

Prepared by: Sara Ryan Date 2/7/83  
Checked by: EMH/CSH Date 3/9/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. This component is a motor control center that houses the circuit breakers for certain safety-related equipment. Only one component fed from this MCC is needed to mitigate the effects of a high energy line break that causes a harsh steam environment in Room 236. This component is the motor operator for the AFP 2 suction valve (from service water), MV13830. MV13830 would not be initiated in the short term following the accident because it is only needed when the condensate storage tanks run dry. There is ample time to provide this component with temporary power should the MCC fail.
3. This motor control center (MCC) is exposed to high radiation resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W-1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. These 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.

ITEM #205

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-022A  
Rev.: 2

NOTES

Prepared by: Sonia Yoris Date 3/7/83  
Checked by: Ann Dreyer Date 3/7/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. The only harsh environment seen is increased radiation due to recirculated fluids.
3. This motor control center (MCC) is exposed to high radiation levels resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W-1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. These 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.

ITEM #206

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-025A  
Rev.: 2

NOTES

Prepared by: Sava Upasir Date 3/7/83  
Checked by: Lynn D. Hall Date 3/7/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. The only harsh environment seen is increased radiation due to recirculated fluids.
3. This motor control center (MCC) is exposed to high radiation levels resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W-1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. These 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.

ITEM #206

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-028A  
Rev.: 2

NOTES

Prepared by: Janice Repacio Date: 3/7/83  
Checked by: Ed McDonald Date: 3/7/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. The only harsh environment seen is increased radiation due to recirculated fluids.
3. This motor control center (MCC) is exposed to high radiation resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W-1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. These 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.

ITEM #206

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-023A  
Rev.: 2

NOTES

Prepared by: Janis Yovanis Date 3/7/83  
Checked by: W. McDonald Date 3/7/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. This component is a motor control center (MCC) that houses the circuit breakers for certain safety-related equipment. This MCC is exempt from qualification because it does not perform a safety-related function in the harsh steam environment caused by a high energy line break. Failure of the MCC in the harsh steam environment will not degrade other safety-related functions or mislead the operator because the equipment it feeds is only needed to mitigate a LOCA.
3. This motor control center (MCC) is exposed to high radiation levels resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W-1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. These 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.

ITEM #207



Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-024A  
Rev.: 2

NOTES

Prepared by: Sonia Lopez Date 3/7/83  
Checked by: LMH/DMH Date 3/7/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. The effects of a high energy line break will cause a harsh steam environment in Room 304 where the temperatures and pressures will rise to the values indicated. The pressure will not cause any adverse effect on the MCC due to the internal compartments' ability to "breathe" from the outside through gaps between the doors and the frame. The peak pressure is barely above atmospheric with a return to ambient within 10 seconds following the accident. The elevated temperature is not high enough to cause a breakdown of any of the materials in the MCC. Temperature will return to ambient within 8 minutes following the accident. The effect of 100% relative humidity may be the condensation of droplets of water on all the surfaces of the components of the MCC. According to the Davis-Besse 480 V Unit Substation Specification 7749-E-7, the type W MCCs are built for high humidity conditions. Considering the short-term saturated steam conditions (10 seconds), the 100% relative humidity should not cause any malfunctions of the devices in the MCC.
3. This motor control center (MCC) is exposed to high radiation levels resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. There 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.

ITEM #207

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-035A  
Rev.: 2

NOTES

Prepared by: Sonia Upas Date 3/7/83  
Checked by: Jim Donnell Date 3/7/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. This component is a motor control center (MCC) that houses the circuit breakers for certain safety-related equipment. This MCC is exempt from qualification because it does not perform a safety-related function in the harsh steam environment caused by a high energy line break. Failure of the MCC in the harsh steam environment will not degrade other safety-related functions or mislead the operator because the equipment it feeds is only needed to mitigate a LOCA.
3. This motor control center (MCC) is exposed to high radiation levels resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W-1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. These 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.

ITEM #207

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-026A

Rev.: 2

NOTES

Prepared by: Sonia Upson Date 3/7/83  
Checked by: LMH/DMH Date 3/7/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. The only harsh environment seen is increased radiation due to recirculated fluids.
3. This motor control center (MCC) is exposed to high radiation levels resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W-1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. These 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.

ITEM #208

Facility: Davis-Besse Unit 1  
Docket: 50-346

SYSTEM COMPONENT EVALUATION WORKSHEET

Index No.: 221H-036A  
Rev.: 2

NOTES

Prepared by: Sonia Ayaso Date 3/7/83  
Checked by: William D. ... Date 3/7/83

1. This component is scheduled to be tested or analyzed for qualification by January 1, 1984.
2. The only harsh environment seen is increased radiation due to recirculated fluids.
3. This motor control center (MCC) is exposed to high radiation levels resulting from the post-LOCA recirculation of fluids which commences 40 minutes into the accident. The only known materials susceptible to degradation due to radiation are ABS in the handle mechanism of the circuit breaker, and nylon in the auxiliary contacts and terminal blocks. The handle mechanism in the circuit breakers is used to turn the power off for maintenance only and is not required to be operated after an accident. The failure of the handle mechanism cannot prevent any of the devices fed by this MCC from performing their function. According to Reference W-1, the degradation of nylon, which is contained in the auxiliary contacts and terminal blocks, occurs for a radiation dose of  $4 \times 10^6$  Rads or higher. This value is greater than the total integrated dose that the MCC will see.
4. In the unlikely event that the MCC failed, its associated equipment can be provided with temporary power. There is no identifiable failure mechanism which will trip a circuit breaker feeding power to a device, or move a valve that is already in a safe position after receiving a safety features actuation signal. These 1E MCCs are built to IEEE-323 standards and are equipped with manual closing and tripping devices for the circuit breakers should their actuating circuits fail. Failure of the MCC will not mislead the operator. Based on the above discussion, continued safe plant operation is justified.