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SCHWENCER,A. Licensing Branch 2

SUBJECT: Forwards Rev 3 to Unit 1 pump & valve inservice insp program & original Unit 2 pump & valve inservice insp program, Justifications for changes encl.Fee paid.

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DEC 31 1984

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT 1 & UNIT 2 PUMP AND VALVE ISI PROGRAMS
ER 100450/100508 FILE 841-2 Docket Nos. 50-387
PLA-2319 50-388

Reference: (1) PLA-1731 dated 6/30/83.

Dear Mr. Schwencer:

Attached are Rev. 3 to the Unit 1 Pump & Valve Inservice Inspection Program and our original submittal (Rev. 0) of the Unit 2 Pump & Valve Inservice Inspection Program. Justifications for changes to our previous submittal under Reference (1) are also attached.

If you have any questions, please call.

Very truly yours,

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

Attachment 1: Justifications for Changes to Unit 1 P&V ISI Program
Attachment 2: Unit 1 P&V ISI Program Rev. 3
Attachment 3: Unit 2 P&V ISI Program Rev. 0

cc: M. J. Campagnone - NRC
R. A. McBrearty - NRC Region I
R. H. Jacobs - NRC Susq. SES

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JUSTIFICATIONS FOR CHANGES
TO UNIT 1 P&V
ISI PROGRAM

The changes to the Unit 1 Pump & Valve Inservice Inspection Program (Unit 1 P&V ISI Program) were the result of several factors. Among these factors are the following:

(1) A comprehensive review of the program during the development of the Unit 2 program (which is to a later Addenda of the ASME code).

(2) Over 2 years of operation during which we learned more about the capabilities and limitations of Susquehanna's equipment.

(3) Technical Specification changes and compliance.

(4) Additions of a clarifying or refining nature which were brought about in part as a result of comments generated during an internal review of the program.

Justifications for significant changes to the Unit 1 P&V ISI program are included following this page. We believe changes of an administrative nature (typos etc.) are self-explanatory and these changes will be listed but not justified.

JUSTIFICATIONS FOR CHANGES
TO UNIT 1 P&V
ISI PROGRAM

Page Number(s)	Description of Change	Justification for Change
	GENERAL	
2, 19, 23, 25, 28, 32, 33, 37, 88-91(Relief request 33 - previous revision pages 91-92).	Removal of excess flow check valves from P&V ISI program	The paragraphs on excess flow check valves added on page 2 provide a detailed justification for this change. In summary, excess flow check valve testing is covered under the Susquehanna Technical Specifications and is separate from the Section XI ISI commitments which this document addresses.
3	Statements that changes in valve stroke times will be documented in the Valve Record and incorporated in the next program plan revision.	This addition formalizes PP&L's method of handling future changes to valve stroke time in a practical manner.
4	Statement that Category A valves are those with specified "maximum" leakage rate requirements.	This change corrects an administrative error by changing the previous word minimum to the correct word maximum.
5	Remark change that valve testing configurations will be "similar to" that utilized for containment local leak rate testing instead of the previous wording "the same as".	In many cases the valve testing configurations will be the same as the configuration used on containment local leak rate testing. In those instances where the testing configuration is somewhat different than that for containment local leak rate testing, an alternate testing method deemed adequate by our plant engineers for demonstrating the particular valve's leakage will be used.
	VALVE TABLES	
8	Deletion of Service Water (M-109) valves 1-09-090 & 1-09-091.	The deleted valves are redundant to retained valves HV-10943A2 & HV-10943B2 and are not required to perform a specific function in shutting down the reactor to a cold shutdown condition or in mitigating the consequences of an accident.

Page Number(s)	Description of Change	Justification for Change
9	Deletion of Service Water (M-110) valves 1-10-110 & 1-10-113.	The deleted valves are redundant to retained valves 1-10-109 & 1-10-112 and are not required to perform a specific function in shutting down the reactor to a cold shutdown condition or in mitigating the consequences of an accident.
9	Addition of Service Water (M-110) valves HV-11024A1, HV-11024B1, HV-11024A2, & HV-11024B2.	These valves isolate ESW from SW.
12	Addition of ESW (M-111) valves HV-11143A & HV-11143B	These valves isolate ESW from SW.
13	Deletion of RHRSW (M-112) valves PSV-11213A & PSV-11213B.	The deleted valves provide a thermal relief function and are excluded from the program (see pg. 2).
15, 17, 18, 19, 20, 28, 33, 39, 40, 42, 44, 45	Change of valve code class from non-code to ASME Code Class 2 (some valves were changed to ASME Code Class 3 on page 17).	Valve class designations changed as a result of a reevaluation of all valves.
16	Change of Diesel Oil (M-120) valves 0-20-007, 0-20-009, 0-20-012, & 0-20-015 tests to reflect relief request #47 monthly testing.	Valves are exercised monthly in the course of Diesel testing. See relief request #47.
19, 29, 31, 32	Changes in valve stroke times to a value lower than the previous value.	These valve stroke times were changed to attain consistency among similar valves.
22, 23 (previous revision pages)	The Nuclear Boiler Vessel Instrumentation (M-142) valve table was deleted.	The only valves listed under this table were excess flow check valves.
28	Addition of RCIC (M-149) valve 1F021.	Valve inadvertently omitted from previous revision of program.

Page Number(s)	Description of Change	Justification for Change
28	Change in valve category from passive to active, addition of Q&MT to testing requirements, and the addition of stroke time and remote position indicator information for RCIC (M-149) valve HV-1F088	This valve is used to warm the RCIC steam lines and is not required to change position to shutdown the reactor or mitigate the consequences of an accident. However, to achieve consistency with Technical Specification requirements for containment isolation valves, it was felt that the subject changes were prudent.
29, 31	Change in valve category from passive to active, change of actuator type, remote position indicator, and stroke time listings on RHR (M-151) valves HV-1F022 & HV-1F023 from N/A to the present information and the addition of these valves to relief request #26.	These valves are the containment isolation valves for the head spray mode of RHR. This function provides a means of bringing the reactor to a cold shutdown condition. The changes represent this function and are consistent with current Technical Specification requirements.
29 30 31 32	Deletion of RHR (M-151) valves PSV-1F025A, PSV-1F025B, PSV-1F030A, PSV-1F030B, PSV-1F030D, PSV-1F030G, PSV-1F029, & PSV-15113.	The deleted valves provide a thermal relief function and are excluded from the program (see pg. 2).
30 32	Deletion of RHR (M-151) valves 1F089A&B	The deleted valves are redundant to the retained valves 1F090A&B and are not required to perform a specific function in shutting down the reactor to a cold shutdown condition or in mitigating the consequences of an accident.
32	Deletion of SRV testing for RHR (M-151) valve PSV-1F126.	These valves provide a thermal relief function but are also considered a containment boundary. Consequently, the valves are retained but the SRV testing requirement was deleted.
36	Deletion of HPCI (M-155) valve 1-55-013	The deleted valve is redundant to the retained valve 1-55-012 and is not required to perform a specific

Page Number(s)	Description of Change	Justification for Change
		function in shutting down the reactor to a cold shutdown condition or in mitigating the consequences of an accident.
36	Change of HPCI (M-155) valve 1F046 to Section XI Valve category to A/C and the addition of this valve to relief request #28.	Valve category upgraded as a result of reevaluation. See relief request #28 for testing justification
37	Change in valve category from passive to active, addition of Q&MT to testing requirements and the addition of actuator type, stroke time, and remote position indicator information on HPCI (M-155) valve HV-1F100.	This valve is used to warm the HPCI steam lines and is not required to change position to shutdown the reactor or to mitigate the consequences of an accident. However, to achieve consistency with Technical Specification requirements for containment isolation valves, it was felt that the subject changes were prudent.
38	Deletion of HPCI Turbine-Pump (M-156) valves PSV-1F020 and PSV-1F050.	The deleted valves provide a thermal relief function and are excluded from the program (see p. 2).
38	Change of HPCI Turbine-Pump (M-156) valve FV-15612 stroke time requirement from TBD (to be determined) to - and the addition of a relief request for this valve.	See relief request #53
38	Change in stroke time on HPCI Turbine-Pump (M-156) valve HV-1F059 from 24 sec to 35 sec.	The HPCI system is required to reach rated flow within 30 seconds of receipt of an initiation signal. The F059 valve supplies cooling water off the booster pump discharge for the HPCI turbine lube oil coolers and the HPCI barometric condenser. The HPCI system does not isolate on high lube oil temperature or on high barometric condenser pressure. As a result of recent testing on new Unit 2 valves, a more representative maximum stroke time for the F059 valve (35 sec.) within this valves

Page Number(s)	Description of Change	Justification for Change
		capability has been established. This increase in stroke time will not inhibit the operation of HPCI or prevent it from performing as required and is permitted under IWV-3413.
45	Addition of test requirement "MT" for "stroke time" measurement concurrent with quarterly exercise test for TIP Channels A thru E Manual Isolation Valves	Added testing required under ASME Section XI.
	PUMP TABLE	
47 48	Change in bearing temperature testing and lubricant level or pressure observation requirements for RHR pumps 1P202A-D, Core Spray pumps 1P206A-D, ESW pumps OP504A-D, & RHRSW pumps 1P506A-B	See relief request #54
49	Change in Diesel Oil Transfer pump (OP514A-D) testing requirements to a monthly functional test only.	See relief request #47
	RELIEF REQUESTS	
Several	Change to relief requests or the creation of new relief requests	Administrative changes will be listed in the Administrative Changes section. Minor changes to relief requests resulting from changes to the pump or valve tables (e.g. ASME valve class designation upgrades) will not be listed.
77, 78, 79	Major rewrite of relief request #24.	The rewrite reflects changes necessitated by plant design changes (e.g. the addition of a test connection on ESW) and an attempt to improve the basis for relief section to make it clearer and more concise.

Page Number(s)	Description of Change	Justification for Change
		The changes in the alternative testing section we believe will provide more meaningful testing than the previously proposed testing alternatives.
76, 81, 104	Major rewrites of relief requests 23, 26, and 45.	Changed for clarification purposes. The references to Technical Specification 3.4.3.2 were erroneous. The guidance provided in IE Information Notice 84-74 and draft R.G. 901-4 (and supported to some extent by TMI item II.K.1 & NUREG-0677) is much more explicit regarding containment isolation valve stroking.
94 (Previous revision page number 95)	Deletion of Relief Request #36	The deleted relief request pertained to service water valves 1-09-090 & 1-09-091. These valves were deleted since they were redundant to retained valves HV-10943A2 and HV-10943B2 (see previous justification concerning these valves in the valve table section).
96	Deletion of valve listing and wording changes in the alternative testing section on relief request #38.	Valve listing deleted to make program more concise. The valve tables contain the valves associated with this relief request and can be identified by checking the tables under the relief request # column (for a 38) and the remarks column (for the phrase "rapid acting valve"). The change in the alternative testing section is meant for clarification only.
108	Major rewrite of relief request #49	Changes made in an effort to clarify this relief request. The previous version provided no basis for not testing the pumps via recirculation through the test tank.

Page Number(s)	Description of Change	Justification for Change
109	Wording change on relief request #50.	Testing the control structure chiller as a system instead of testing each individual pump provides a method of monitoring pump performance without removing the safety system from operation. While testing each individual pump may provide more meaningful results in terms of pump degradation, testing of the system as a whole verifies the proper operation of all system components and therefore is more practical.
59,64,79, 86,87	Change in wording under alternative testing from a time cycle in months (e.g. every 18 months) to a cycle based on refueling outages.	The previous test frequencies were based on refueling outages every 18 months. However, the time between refueling outages may be greater or less than 18 months (e.g. the Unit 1 second refueling outage is currently scheduled only 9 months after the Unit 1 first refueling outage). The proposed testing is most practical when performed during refueling outages.

Page Number(s)	Description of Change
	ADMINISTRATIVE CHANGES
2	Section 4.9 of ANSI/ASME PTC 25.3-1976 to Section 4.09 same code.
4	Addition of valve identifications XV, FV, & PSE
5	Change in RPI symbol from -- to -
5	Same as change above on page 2
8	Addition of "No" under relief request req'd column for valves HV-10943A2 & HV-10943B2.
8, 22, 27	Change in valve stroke time from TBD (to be determined) to a specific stroke time.
30, 32	Addition of closure test only to remarks column of RHR (M-151) valves 1F090A&B.
26	Typo - values changed to valves.
30,32	Addition of closure test only to remarks column of RHR (M-151) valves 1F090A&B.
36	Changes associated with valve HV-1F049 (1) Testing Alternative changed from "Closed RR" to "See Relief Request" (2) Remarks added to indicate "open test only during pump test." Relief Request 28 was not changed except to add HV-1F046.
47	Minor changes in organization of listing for HPCI pumps 1P204 A-B with no change in commitments. Specifically these changes were to add an asterisk to the bearing temperature column to call attention to relief request 48 and the deletion of relief request 48 under the relief request number column (this is consistent with other entries in the pump table).
64	Change in wording under function from "prevent backflow from suppression pool" to "prevent backflow from fuel pool".
96	Change in wording under impractical test requirements from "Comparison of most recent stroke time measurement with that of previous test per IWV-3417(a)" to "Trend valve stroke times per IWV-3417(a)."