

Docket No. 50-267

Date: 12/30/87

Note to: Docket Files 042

From: K. L. Heitner P-234
Project Manager
Fort St. Vrain

Subj: Attached Draft
Document

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K. L. Heitner



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Docket No. 50-267

MEMORANDUM FOR:

Jose A. Calvo, Director
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects

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FROM:

Kenneth L. Heitner, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects

SUBJECT:

SUMMARY OF MEETING WITH PUBLIC SERVICE COMPANY
OF COLORADO (PSC) ON TECHNICAL SPECIFICATION
UPGRADE PROGRAM (TSUP) - DECEMBER 2-3, 1987.

On December 2 and 3, 1987 the NRC staff met with the staff of the Public Service Company of Colorado (PSC) at the Fort St. Vrain (FSV) site. Also in attendance were NRC contractors from Idaho National Engineering Laboratory (INEL) and Oak Ridge National Laboratory (ORNL). The purpose of this meeting was to discuss the status of the FSV-TSUP. Specifically, this meeting focused on areas related to cooling functions, electrical systems and the overall progress and schedule. The meeting attendees are listed in Enclosure 1. References are listed in Enclosure 2.

A proposed schedule for the completion of the TUSP effort, sent by NRC to to PSC (Ref. 1) was discussed and modified at this meeting. A review of the proposed PSC revised draft technical specifications and discussions of NRC comments (Ref. 2&3) was accomplished during this meeting. The PSC material (Ref. 4) was sent to NRC prior to the meeting. Additional NRC staff comments on the auxiliary electric power system (Enclosure 3) were also discussed. The new classification status for the material covered at this meeting are listed in the tables in Enclosure 4. They are subject to verification when PSC submits their final responses. for ease of reference the six classification categories are listed in Enclosure 5.

A teleconference is scheduled for January 8, 1988. During this teleconference PSC will cover those items noted in the tables in Enclosure 4. The next meeting on TUSP is projected for mid-February, 1988.

The new dates for the schedule milestones are listed in Enclosure 6. Incorporated in this schedule is an allowance for the 8th of January teleconference results to be integrated into the PSC responses to the NRC (The PSC responses are rescheduled from 1/15/88 to 2/1/88.) These changes will cause about a six week slip in the overall schedule. The TS release to PSC is now projected for November 30, 1988.

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Other major items of note are:

1. The PSC draft of final TS modifications is projected for April 11, 1988. This PSC submittal will include highlighting and justification of all changes made in this final draft. Also, this draft will include all "C items" not included in previous PSC submittals to NRC. The draft will have been reviewed and approved by the FSV Plant Operations Review Committee.
2. PSC will supply revised versions of the licensee amendments that have been approved since the TSUP began (about a dozen amendments). The review of these revisions will also be incorporated into the final TER, now scheduled for May 30, 1988.
3. PSC will submit a quality assurance plan that is being used to complete the final draft TS modification. This material will be used by the NRC Technical Specifications Branch in their review.

The staff noted that there were uncertainties in the review schedule to allow for TS Branch QA/QC review and the internal NRC legal review. The NRC staff offered comments on the format and contents of LCO 3.5.1.1 through LCO 3.5.5. PSC will consider these comments in their redraft of these LCOs.

Kenneth L. Heitner, Project Manager
Project Directorate-IV
Division of Reactor Projects - III,
IV, V and Special Projects

Enclosures:
As stated

cc: See next page

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TSUP Meeting Attendees
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Name -----	Organization -----
Sam Chestnutt (B)	PSC Licensing
J.L. Lewis (1)	PSC Plant Engineering
Jim Miller (1)	NRC/NRR/TSB
Chris Kimura (1)	LLNL/NRR Contractor
David Moses (B)	ORNL/NRR Contractor
Joseph Stachew (B)	INEL/NRR Contractor
Louis N. Rib (B)	INEL Consultant/ NRR Contractor
Ken Heitner (B)	NRC/NRR/PP-IV
Marty Deniston (B)	PSC Operations
David Alberstein (B)	GA Technologies
Brian Dyck (B)	PSC Licensing
James Selan (1)	PSC Licensing
J.A. Capone (1)	PSC Licensing
M.H. Holmes (B)	PSC Licensing
Alan Udy (1)	INEL/NRR Contractor

(1) Attended meeting on 12/2/87
(B) Attended meeting on both 12/2&3/87

References

1. Memorandum: K. L. Heitner to J.A. Calvo, "Announcement of forthcoming meeting with PSC concerning FSV, December 2-4, 1987, dated November 13, 1987.
2. Letter: K. L. Heitner (NRC) to R. D. Williams, Jr. (PSC), G-87131, "RAIs on Safety-Related Cooling Functions", dated April 17, 1987.
3. Letter: K. L. Heitner (NRC) to R. D. Williams, Jr. (PSC), G-87217, dated July 2, 1987.
4. Letter: H. L. Brey (PSC) to J. A. Calvo (NRC), P-87410, dated November 19, 1987.

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FORT ST. VRAIN TECHNICAL SPECIFICATION UPGRADE PROGRAM
SECTION 3/4.8 - AUXILIARY ELECTRIC POWER SYSTEMS

Meeting Date: December 2/3, 1987

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Items to be Discussed:

1. LCOs 3.8.1.1b.4 and 3.8.1.2b.4 both require 100 gallons of diesel lubricating oil to be present for operating conditions (2 diesel generator sets required to be operable) and shutdown (1 diesel generator set required to be operable) respectively. It is not clear whether the 100 gallons required is for each operable set or for common storage. This should be clarified. ✓
2. Surveillance procedure 4.8.1.1.2e.5.b allows 60 seconds for the diesel generator sets to auto-start and energize the essential buses. Surveillance procedure 4.8.1.1.2f allows 20 seconds to accelerate to 1200 rpm. We could find no basis for this time being greater than 15 seconds (Section 8.2.5.2 of the updated FSAR, Revision 5). These allowances should therefore be changed to 15 seconds. ✓
3. Surveillance procedure 4.8.1.1.2e.8 calls for tests of the diesel generator sets at ≥ 1200 kW for 22 hours. Surveillance procedure 4.8.1.1.2a.7 is similar for at least 60 minutes. Damage to the generators could occur when operating at greater than full continuous load, especially when considering possible instrument inaccuracies that could actually call for a greater than full load. Therefore, even though the STS has the same potential for generator damage, this requirement should be changed to a range (such as 1150 ± 50 kW) with the load verified by instrumentation recently calibrated and of known accuracy.

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4. Section 3/4.8.2 Action a, acknowledges that a battery equalizing charge can exceed 24 hours; however, it does not restrict the length of the equalizing charge (said to be between 3 and 5 days) nor the frequency with which equalizing charges can be applied. Batteries must be maintained in a state of readiness, available for immediate use for events such as station blackout and for diesel generator controls and field flashing and bus load shedding and control (see basis on page 3/4 8-15). Therefore, the 5-day limit should be imposed, and an equalizing charge while operating should be made the exception rather than an everyday occurrence.
5. Section 3/4.8.2 Action b does not direct efforts towards restoring an inoperative battery charger until the battery is declared inoperative. This is not acceptable. A dedicated battery charger should be required to be placed (returned) to service with the same expediency that a battery is (restore to OPERABLE status within 24 hours or be in at least SHUTDOWN within the next 24 hours).
6. In the December 18, 1986 meeting, it was stated that plant specific values for Table 4.8.2.1 would be provided, specifically for specific gravity and cell voltage. Other than specific gravity for Category A, there were no changes. We also note that battery 1C is of different design from batteries 1A and 1B. Therefore, separate values may be necessary. We could not find this item addressed in the August 24, 1987 (P-87272) response.
7.
 - (a) Section 4.8.2.1f, 'performance discharge tests' should be 'performance discharge test'.
 - (b) On page 3/4.8-26, references to 'Table 4.8-2' should be 'Table 4.8.2-1'.
 - (c) On page 3/4.8-15, reference to 'any of the five off-site sources' should be changed to be in agreement with 3.8.1.1a.

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- (d) Is it necessary to include operability of the main transformer in conjunction with capability of the UAT?
- (e) What is the resistance of the inter-rack connections for the batteries (4.8.2.1b.2 and 4.8.2.1c.3), and is there a reason this value should not be trended?
- (f) Is the 121.5 volts in surveillance requirement 4.8.2.1a.2. with reference to cells that are jumped out, the individual cell voltage or both?

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CLASSIFICATION STATUS OF TSUP ITEMS-RESULTS OF 12/2-3/87 MTG. AT PSC

NRC COMMENT LCO#	NRC TENTATIVE AGREEMENT	COMMENTS
ATTACHMENT # 1 TO P-87410 Primary Coolant Loops and Coolant Circ.		
3.4.1.1	A	P.4-1, see note 1 below
3.4.1.2		
Action 1	A	P.4-6 Staff accepted deletion of prev. par.1
Basis	A#	P.4-7
	B	P.4-8
3.5.1.1(all)	A#	P.5-1
SR 4.5.1.1	A#	P.5-1 incl. LCO + Action revisions
3.5.1.2	A	P.5-3
Basis	A#	P.5-4
3.5.2.1	A	P.5-7
SR 4.5.2.1	A#	P.5-8
3.5.2.2	A	P.5-9
Basis	A#	P.5-10
3.5.3.1	A#	P.5-13
SR 4.5.3.1	A#	P.5-13
SR 4.5.3.2	A#	P.5-14
3.5.4.1 Action	A#	P.5-21
Basis	A	P.5-23
	A#	P.5-24 mods to 2nd & 3rd par.
3.5.5	A#	P.5-25
ACTION	A#	P.5-25 & 5-26
SR 4.5.5.1c.2	A#	P.5-26
SR 4.5.5.3c.1	A#	P.5-28
SR 4.5.5 Basis	A#	P.5-29
3.6.2.1 Action	A#	P.6-18 & 6-19
3.6.2.2 Action a.	A#	P.6-21
3.6.3 Action	A#	P.6-25

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Note 1: PSC considering mod. to allow loop recovery at 12% power.

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NRC COMMENT #	PREVIOUS NRC CLASS.	NRC TENTATIVE AGREEMENT	COMMENTS
SECTION 3/4.8 AUX. ELECTRIC POWER SYSTEMS (ENCLOSURE # 3)			
ITEM #			
1		B	
2		A#,D*	PSC input for 1/8/88 telecon Re D* see note 1 below
3		A#,D	1/8/88 telecon-PSC to provide values re diesel
4		D	Discuss during 1/8/88 telecon
5		A#	
6		B,A#	(A# re footnote #4)
7(a)		A	
7(b)		A	
7(c)		A#	
7(d)		A#	
7(e)		D	
7(f)		D*	Jim Miller will review, incl. in 1/8/88 call
Additional Items:			
1	A#	A	Surveil. for air starting receivers
2	A#,D*	A,D*	Re attach.3 to P-87272,item 25c,D* re equalizing charge
3		D*	Diesel fuel surveil.
4 LCO 3.8.1.1a		D*	Attach.#5,P-87272
5 3/4 8-21,28		A#	Re ACM, attach.#6,P-87272
Attachment #2 to P-87410			
Definitions			
1.1-1.37		A	
LCO 3.7.1.1b		A	P.7-1
Basis Par.1		A	P.7-2 re added phrase on MCA
Par.2		A	P.7-2 deleted par.
Par.3		A	P.7-3 deleted par. + addt'l discussion from p..5-1
LCO 3.7.1.5		D	P.7-12
SR 4.7.1.5		D	P.7-13
LCO 3.7.1.6		D	P.7-15
SR 4.7.1.6		D	P.7-15
LCO 3.7.1.7		A	P.7-17
SR 4.7.1.7		A	P.7-17
BASIS		A	P.7-18
LCO 3.7.5			
BASIS		A#	P.7-34 5TH par.& beyond P.7-35 3rd par. should reflect EQ
LCO 3.9.1		A#	P.9.1 PSC 1/15/88 resp., disc. at next mtg.

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Note 1:D*-Tomlinson input re time to start-delete for FSV ?

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NRC COMMENT LOC #	PREVIOUS CLASSIF.	NRC TENTATIVE AGREEMENT	COMMENTS
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Attachment #3 to P-87410 PSC Response to NRC Comments (G-87131)

Def.1.33	A	A#	P.1-7
Table 1.1#1	A#	A#	Re interlock classif.
Table 1.1#2	B	B	p.4
3.2#1	F	F	
3.2#2	F	F	
3.4#1	D*,B,B	A#,B,B	(change)
3.4#2	F,A#	F,A#	
3.4#3,#4	D*,B,F	B,B,F	(change)
3.4#5	F	F	
3.4#6	A	A	
3/4.5	B	B	
3.5.1.1#1	A	A	
3.5.1.1#2	A	A	
3.5.1#3	A	A	
3.5.1.1#4	A,B	A,B	
3.5.1.1#5	A	A	
3.5.1.1#6	A	A	
3.5.1.1#7	A#	A#	
3.5.1.1#8,9	A,A	A,A	
3.5.1.1#10	B	B	
3.5.1.1#11	B	B	
3.5.1.1#12	A	A	
3.5.1.1#13	A	A	
3.5.1.1#14	A	A	
3.5.1.1#15	B	B	
3.5.1.1#16	A#	B	(change)
3.5.1.1#17	B	B	
3.5.1.1#18	A	A	
3.5.1.1#19	A#,F	A#,F	
3.5.1.1#20	B	B	
3.5.1.1#21	A	A	
3.5.1.1#22	B	B	
3.5.1.1#23	F	F	
3.5.1.1#24	B	B	
3.5.1.2#1,#3	A#,A#	A#,A#	
3.5.1.2#2	A	A	
3.5.1.2#4,#5	A,B	A,B	
3.6.2.1#1	B	B	
3.6.2.1#2	B	B	
3.6.2.1#3	B	B	
3.6.2.1#4	B	B	
3.6.2.1#5	B	B	
3.6.2.2#1,#3	D	B	(change)
3.6.2.2#2	B	B	

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NRC COMMENT LCO #	PREVIOUS CLASS.	NRC TENTATIVE AGREEMENT	COMMENTS
3.6.3#1	B,A	A,B	(change)
3.6.3#2	B	B	
3.6.3#3	F	F	
3.7#1	B,A#	B,A#	re ACM only
3.7#2	B	B	
3.7.1.1#1	A#,B	A#,B	
3.7.1.1#2	A#,D*	A,A	(change)
3.7.1.1#3	A#	A	(change)
3.7.1.1#4	F	F	
3.7.1.1#5	B	B	
3.7.1.2	A#,B	A#,B	
3.7.1.5	A	A	
3.7.1.6	B	B	
3.7.3	B	B	
3.7.5	B	B	
3.7.8#1	A#	A#	
3.7.8#2	A#	A#	
3.7.8#3	F	F	
3.7.8#4	B	B	
3.9.1(Part 1)	A#	A#	
3.9.1(Part 2)	F	F	
SR 4.5.1.1	B	B	

Attachment #4 to P-87410

3.5.1.1#1	A	A	
3.5.1.1#2	A	A	
3.5.1.1#3	A	A	
3.5.1.1#4	A#	A#	
3.5.1.1#5	A#	A#	
3.5.1.2#1	A	A	
3.5.1.2#2	A#	A#	
3.5.1.2#3	A,B	A,B	
3.5.1.2#4	A#	A#	
3.5.1.2#5	A	A	
3.5.3.1#1	A	A	
3.5.3.1#2	A,B	A,B	
3.5.3.2#1	A#	A#	
3.5.3.2#2,3,4	A,A,A,B	A,A,A,B	
3.5.4	A#	A#	
3.6.2.2#1	B	B	
3.6.2.2#2	A#	A#	
3.6.2.2#3	A	F	(change,handle in ISI)
3.6.2.2#4	A	A	
3.7.1.1	A,B	A,B	
3.7.1.6	A	A	
3.7.4.2	A	A	

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Enclosure 5

The following is the Categorization of Electrical Technical Specifications comments transmitted to PSC by the NRC in the referenced letters, G-87056 and G-87161. Categorization symbols used are the same as used in previous meetings and correspondence:

- A - Incorporate comment as is
- A# - PSC action item
- B - No action needed (resolved by discussion)
- C - PSC to explain in proposed TSUP amendment safety evaluation
- D - PSC/NRC discussion needed to resolve
- D* - *NRC action item
- E - Outside TSUP scope - no further discussion planned
- F - Outside TSUP scope - further discussion possible.

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Proposed Schedule For TSUP Completion

ACTIVITY DUE DATE

Subcategories

1. 5/30/86 Comments (INEL:T1-17)

PSC Response to RAIs 2/1/88

PSC draft of final TS Mod. 4/1/88

Separate INEL & ORNL TERs 4/30/88

Integrated INEL & ORNL TER 5/30/88

2. Section 3/4.8 Comments (INEL:T1-18)

Updated PSC response 2/1/88

Final TER 3/1/88

3. Cooling Function Comments (ORNL:T-7)

PSC response to comments 12/23/87

Final TER 2/15/88

4. PRA on DBA-2 (ORNL:T-6)

Final TER 12/15/87

NRC Position 1/30/88

Major Milestones to Task Completion

INTEGRATED INEL & ORNL TER 5/30/88

PERFORM INDEPENDENT AUDIT REVIEW OF
PSC TS & UPDATE FSAR VS TER -START 6/6/88 TO 7/5/88

COMPLETE RESOLVING DIFFERENCES
IDENTIFIED BY AUDIT REVIEW 7/29/88

LETTER TO PSC TRANSMITTING TER/SER 8/26/88

PSC SUBMITS FINAL TS MOD. 9/23/88

NRC STAFF COMPLETES DC REVIEW OF
PSC FINAL TS MOD. 10/7/88

NRC ISSUES SHOLLY NOTICE 10/21/88

TS FOR PSC RELEASED 11/30/88

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