

February 18, 1987

Docket No. 50-267

Mr. R. O. Williams, Jr.
Vice President, Nuclear Operations
Public Service Company
of Colorado
P. O. Box 840
Denver, Colorado 80201-0840

Dear Mr. Williams:

SUBJECT: SUMMARY OF DECEMBER 18, 1986 MEETING ON DRAFT TECHNICAL SPECIFICATIONS SECTION 3/4.8 AND REQUEST FOR ADDITIONAL INFORMATION

Please find in Enclosure 1, our minutes of the meeting held on December 18, 1986 with your staff to discuss draft Technical Specifications Section 3/4.8. This section covers the electrical systems at Fort St. Vrain. Enclosure 2 is a list of the attendees at this meeting. Enclosure 3 consists of supplemental notes prepared by the staff for your information.

Please note that the minutes contain actions to be taken by both the NRC staff and Public Service Company of Colorado (PSC).

PSC should review Enclosure 1 and prepare a response to the PSC action items. This response should be submitted within 90 days of the date of this letter.

The information requested in this letter affects fewer than 10 respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

original signed by
Kenneth L. Heitner, Project Manager
Standardization and Special
Projects Directorate
Division of PWR Licensing-B
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc w/enclosures:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Sincerely,

A handwritten signature in cursive script that reads "Kenneth L. Heitner".

Kenneth L. Heitner, Project Manager
Standardization and Special
Projects Directorate
Division of PWR Licensing-B
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc w/enclosures:
See next page

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Fort St. Vrain

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MEETING MINUTES/FORT ST. VRAIN
ELECTRICAL TECHNICAL SPECIFICATIONS MEETING

December 18, 1986

This meeting was held to discuss the conversion of the Fort St. Vrain Technical Specifications to a format that is based on the Westinghouse Standard Technical Specifications (NUREG-0452), Revision 5. The discussion was specifically on the electrical section (Section 3/4.8).

A. Fort St. Vrain Draft Technical Specifications

1. 3.8.1.1b.1 The requirement to have a minimum of 325 gallons of fuel in the day tank is based on the use of 95 gallons/hour.

2. 3.8.1.1b.2
 - a. The requirement to have a minimum of 20,000 gallons of diesel fuel in underground storage is based on a single diesel generator set using 16,000 gallons in a week.

 - b. PSC will remove the words "an" and "tank" from the phrase "in an underground storage tank", because there is no single tank in the diesel fuel oil storage system of that capacity.

3. 3.8.1.1b.3 "An OPERABLE water-jacket heater for each diesel engine" is a site specific deviation from the Standard Technical Specifications. Fort St. Vrain has the water jacket heaters and no pre-lubrication system (referring to generic letter 84-15).

4. 3.8.1.1b.4 Lubrication oil is stored in drums on the site and is hand-fed to the lube oil sumps. Therefore, the capability to transfer lubricating oil (per Standard Technical Specifications) is omitted.

5. 3.8.1.1 ACTION Statements
 - a. 1. The licensee identified the Standard Westinghouse Technical Specifications reference here (and in action statements b and d) to Specification 4.8.1.1.2a.4 as in error. It should be 4.8.1.1.2a.5. The NRC should verify this and correct the Standard Technical Specifications.

 2. The licensee will check and follow up on the addition of "or both" in "with either 'or both' of the above required off-site AC electrical power sources."

 3. The 24 hours to restore the Reserve Auxiliary Transformer (RAT) is based on the existing Technical Specifications.

 4. Should "or both" be added as in 2 above, a deficiency then exists. The Standard Technical Specifications (ACTION d under 3.8.1.1) require the diesel generators to be tested within one hour if both offsite sources become inoperable. The draft Technical Specifications, Section 4.8.1.1.2a.5 is given 24 hours by ACTION statement a. The licensee will follow up and correct this deficiency.

 5. The statement "If either diesel generator has not been successfully tested within the past 24 hours"

is based on Generic Letter 84-15 and the North Anna or Perry Technical Specifications. The NRC should verify that the North Anna or Perry Technical Specifications do, in fact, have similar wording.

- b. 1. The statement "If the diesel generator became inoperable due to any cause other than preplanned preventive maintenance or testing" is to avoid excessive starts along the lines of Generic Letter 84-15, and is based on the Perry Technical Specifications. The NRC should verify that the Perry Technical Specifications do, in fact, have this provision.
- 2. The licensee will change "remaining diesel generators" to the singular.
- f. The requirement on out-of-tolerance fuel has been added. Due to the fact that there is no holding tank in the fuel oil system, this would allow a second sample to be taken within 8 hours of the receipt of an out-of-tolerance notification from the test lab if the diesel generators are shown to be operable within the same 8 hours, if not done previously within 7 days.

4.8.1.1.1b.2 This section deviates from the Standard Technical Specifications in verifying that the removal time of the generator links is less than 6 hours. This is acceptable per General Design Criteria 17.

4.8.1.1.2a.5 Instead of the requirement "within 1. seconds after the start signal," the licensee will propose a site specific time limit due to the non-safety significance of this time limit.

4.8.1.1.2c.2 The fuel oil sample analysis differs from the Standard Technical Specifications. The analyses called out (ASTM-D270-1975 water and sediment content, and ASTM-D975-1977 kinematic viscosity) are available locally. The NRC should verify that these analyses are equivalent to those listed in the Standard Technical Specifications. PSC is to provide justification for this deviation.

4.8.1.1.2c.2f The licensee will add "ACM day tank" to the list of tanks sampled.

4.8.1.1.2d.2 These various channel calibrations related to diesel generator operability are added from the existing Technical Specifications.

4.8.1.1.2d.3 175 kW is the largest single load (bearing water pump) for load rejection test requirements.

4.8.1.1.2d.5 & 8 There is no accident signal (per Standard Technical Specifications) that can be added here to start the diesel generators. It is not in the design.

4.8.1.1.2d.10 The licensee will add an air start receivers capacity check (10 seconds of cranking time per the Final Safety Analysis Report for each receiver).

Note--there is no turning gear or emergency stop lockouts (surveillance from Standard Technical Specifications).

4.8.1.1.2f The licensee is to look at including a pressure test of portions of the diesel fuel oil system.

Table 4.8.1-1 Column labeled "Last 20 Valid Tests*" was questioned. This is in agreement with the sample table in Generic Letter 84-15 and acceptable. The licensee will add "At least once per seven days** and" to Test Frequency column for GTE 3.

3.8.1.2 ACTION There is an ongoing NRC review concerning "control rod movements resulting in positive reactivity changes." This is different from the Standard Technical Specifications "positive reactivity changes" because reactivity changes can result from causes other than the control rods (i.e., coolant temperature).

Figure 3.8.1-1 The licensee will change, to the as-built configuration, the suction piping of the diesel fuel oil transfer pumps from one line per pump to a single tank outlet line that splits into two pump suction lines. Also to be added are recirculation lines from each diesel (1A, 1B, 1C, 1D) to the corresponding day tank.

3.8.2.1 The licensee will clarify "dedicated battery charger."

3.8.2.1 ACTION a. The licensee will clarify "OPERABLE D.C. electrical source." Section 4.6.e of the existing Technical Specifications presently allows the two divisions of D.C. power to be tied together while a battery and its charger are isolated, performing an equalizing charge. It was agreed that this practice was not acceptable. The licensee will modify the wording to ensure that the buses will not be tied together. In providing bases for

allowing 5 days for an equalizing charge, the licensee will address emergency operating procedures and training in restoring the isolated battery to its bus and the positive prevention of bus ties.

While 24 hours has been allowed for an equalizing charge by the existing Technical Specifications, the replacement batteries, installed in 1984, require three to five days for a complete equalizing charge.

3.8.2.1 ACTION b. The licensee will clarify "associated battery bank."

4.8.2.1d The licensee will provide a battery charger load test on an 18 month interval.

Table 4.8.2.1 The licensee will submit site specific numbers for Float Voltage and Specific Gravity. Electric maintenance procedures call for a float charge voltage of 2.17 to 2.25 volts/cell, where the table calls for ≥ 2.13 volts.

3.8.2.2 and Actions Same as 3.8.2.1 and actions

Basis for Specification 3.8.2/SR 4.8.2

The licensee needs to address these bases while revising. For instance, the basis allows the "cross-connect (of) the D.C buses" which was agreed as not an acceptable practice.

3.8.3.1d/e/f The licensee will clarify and define
and Action b & c "associated inverter" and "associated battery
bank."

3.8.3.2b The licensee will clarify and define "associated
inverters."

Additionally, the attached draft concerns regarding Generic Letter 84-15 were discussed and provided to PSC.

1. The manufacturer has a hands-off attitude and has provided no recommendations to the licensee.
2. The non-safety ACM diesel is covered in a separate section of the Technical Specifications.
3. The jacket water heaters are part of the Technical Specifications and the pre-warmed condition is normal ambient.
4. The 10 second to full load testing is not a concern. The load is increased manually for these tests.
5. Table 4.8.1.1, GTE 3, test frequency once per 7 days will be added.
6. The other items were not discussed.

ATTENDEES/FORT ST. VRAIN

Electrical Tech. Spec. Meeting

December 18, 1986

<u>Name</u>	<u>Affiliation</u>
Joseph Capone	PSC/Licensing
Sam Chesnutt	PSC/Licensing Consultant
Ron Collins	PSC/Licensing Consultant
Jim Gramling	PSC/NLO
Charles Hinson	SSPD/NRR/NRC
M. H. Holmes	PSC/Nuclear Licensing
G. L. Plumlee	NRC/NRR
James Selan	PSC/Licensing
Alan Udy	EG&G Idaho
Jack Weller	PSC/SRO

SUPPLEMENTAL NOTES

Overall concerns regarding Generic Letter 84-15

1. The Technical Specifications change was to accomplish a reduction in the number of cold fast starts. Acknowledging that the water jacket heaters are operable (rather than operating) per surveillance, show that through contact with the engine manufacturer, that all manufacturer recommendations regarding warmup, pre-lubrication, rate of load increase/decrease, etc., have been considered for inclusion in Technical Specifications surveillance testing for other than 184 day surveillance.
2. Discuss why the ACM diesel-generator is not included under the provisions of the surveillance test program.
3. Section 4.8.1.1.2 a.5 - The footnote is missing that would require cold fast start only once-per-184 days. Other tests can be preceded by prelube/warmup procedures. (See #1.)
4. Section 4.8.1.1.2 a.7 - The requirement of 10 seconds-to-full load testing also applies on the once per 184 day basis. A footnote allowing ramped increases in load-to-full load should be added. Full load test for 60 minutes is still required.

Comments on Table 4.8.1-1

GTE 3 - no test frequency required

Solution: test frequency once per 7 days

Footnotes -

Licensee - entry into this schedule shall be made at the monthly test frequency.

NRC - Valid tests conducted after the OL issuance date shall be included in last 20 valid tests

Solution - neither is necessary - eliminate

Licensee- When test is done on a once-per-7 days interval, it need not be done on a STAGGERED TEST BASIS.

Solution - As there is no basis for this loss of redundancy, require STAGGERED TEST BASIS.

Comments on Table 4.8.1-2

30-day vs 14-day requirement to prepare/maintain report

Solution - adopt 14-day

Licensee - "If the cause of the failure cannot be found and remedied", is not part of generic Technical Specifications.

Solution - Eliminate from action statement as requalification of the whole unit must occur.

Licensee - Requalification test program applies to engine vs diesel-generator.

Solution - Make requirements more specific to cause.

Comments on Attachment 1 to Table 4.8.1-2

Specified 30 days rather than 14 days to prepare a supplemental report

Solution - adopt 14 days

The NRC requirement "In addition to the above, submit a yearly data report on the diesel generator reliability" is not included.

Solution - include

Comments on
Attachment 2 to Table 4.8.1-2

Item 4 - Licensee would require shutdown within 36 hrs while NRC would require hot standby (0% power) within 6 hrs and cold shutdown within 36 hrs.

Solution - change wording to begin shutdown procedure within 6 hrs and be in shutdown within 36 hrs. (There is no hot standby.)