

April 22, 1997

Mr. James M. Levine
Senior Vice President, Nuclear
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Post Office Box 53999
Phoenix, Arizona 85072-3999

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - SECTION 3.4 OF THE PROPOSED
LICENSE AMENDMENT TO IMPLEMENT IMPROVED STANDARD TECHNICAL
SPECIFICATIONS FOR PALO VERDE NUCLEAR GENERATING STATION (PVNGS),
UNIT NO. 1 (TAC NO. M96672), UNIT NO. 2 (TAC NO. M96673), AND
UNIT NO. 3 (TAC NO. M96674)

Dear Mr. Levine:

By letter dated October 4, 1996, and supplemented by letter dated March 16,
1997, Arizona Public Service Company submitted a request to convert the
current Technical Specifications (TSs) for PVNGS Units 1, 2, and 3, to make
them consistent with NUREG-1432, Revision 1, "Standard Technical
Specifications Combustion Engineering Plants," dated April 1995.

In order for the staff to complete its review, the additional information
listed in the enclosed tables is required. The enclosure also reflects the
staff's comments on Section 3.4. To assist the staff in meeting its review
schedule, it is requested that you respond to this request for additional
information within 60 days of receipt of this letter.

If you have any questions, please contact me at 301-415-1325.

Sincerely,

ORIGINAL SIGNED BY
Charles R. Thomas, Project Manager
Project Directorate IV-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-528, STN 50-529
and STN 50-530

Enclosure: Request for Additional
Information

cc w/encl: See next page

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NAME	CThomas <i>CT</i>	EPeyton <i>EP</i>	CGrimes <i>CG</i>
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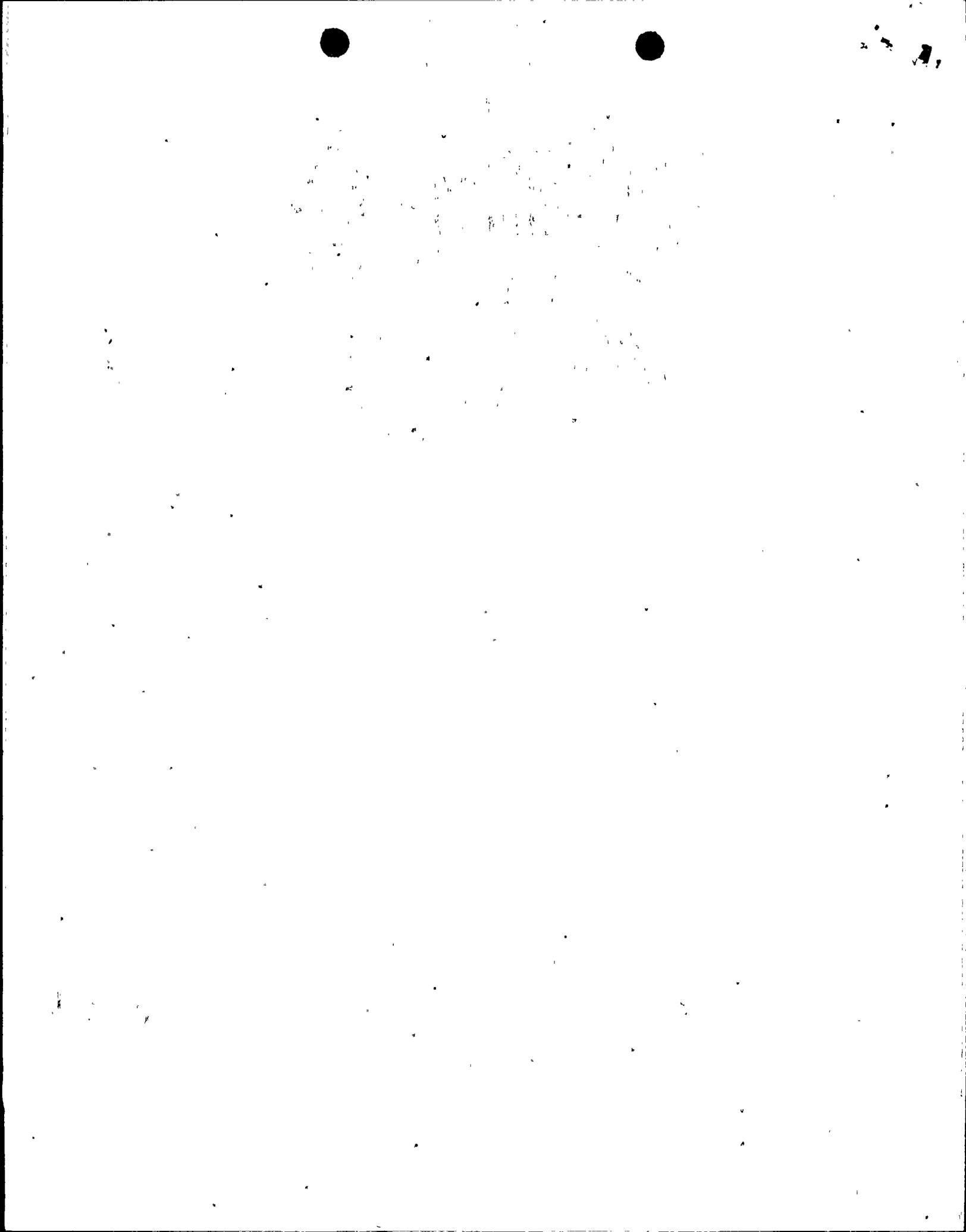
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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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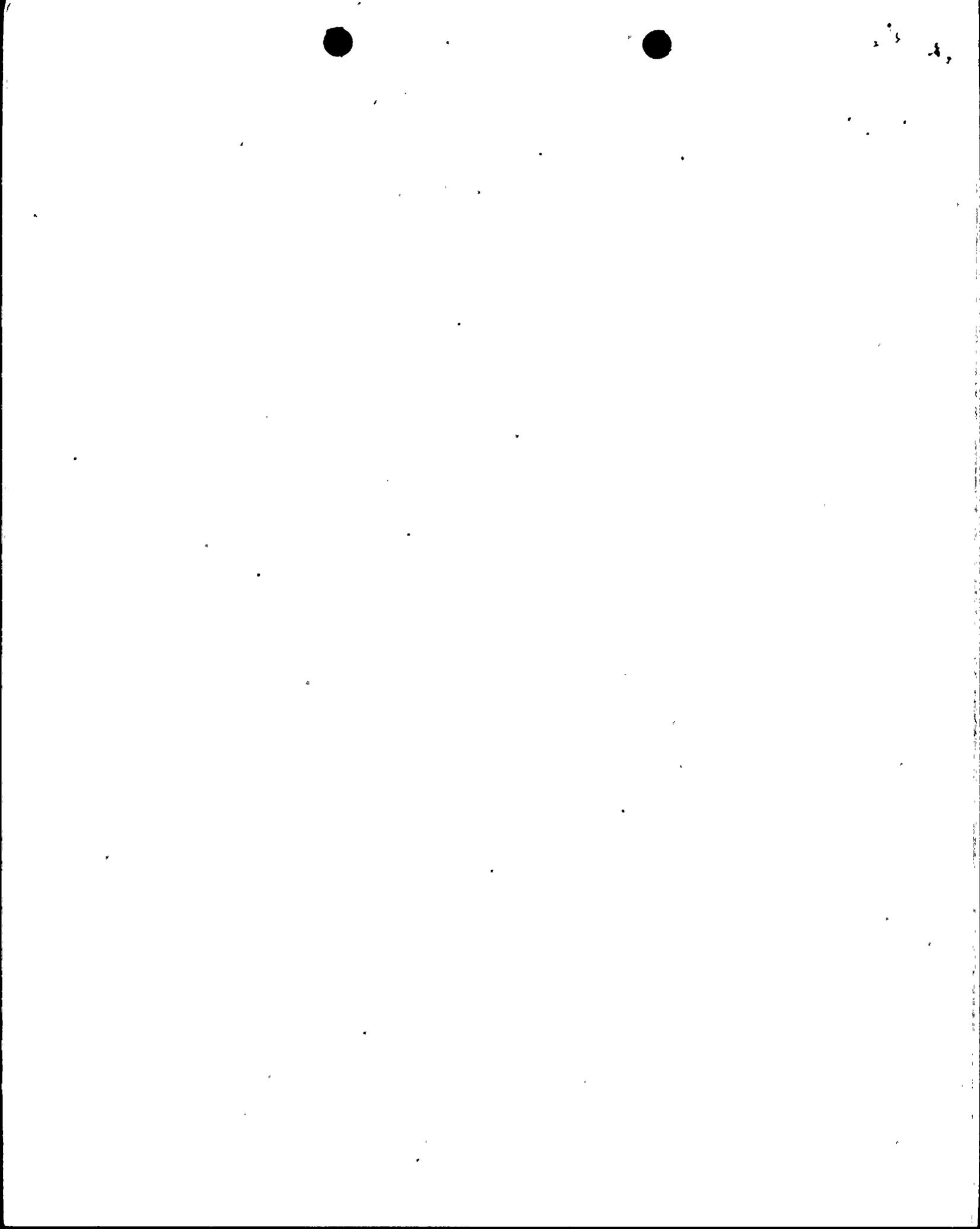
A handwritten signature in cursive script, appearing to read "Charles R. Thomas".

Charles R. Thomas, Project Manager
Project Directorate IV-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-528, STN 50-529,
and STN 50-530

Enclosure: Request for Additional
Information

cc w/encl: See next page



Mr. James M. Levine

- 2 -

cc w/encl:

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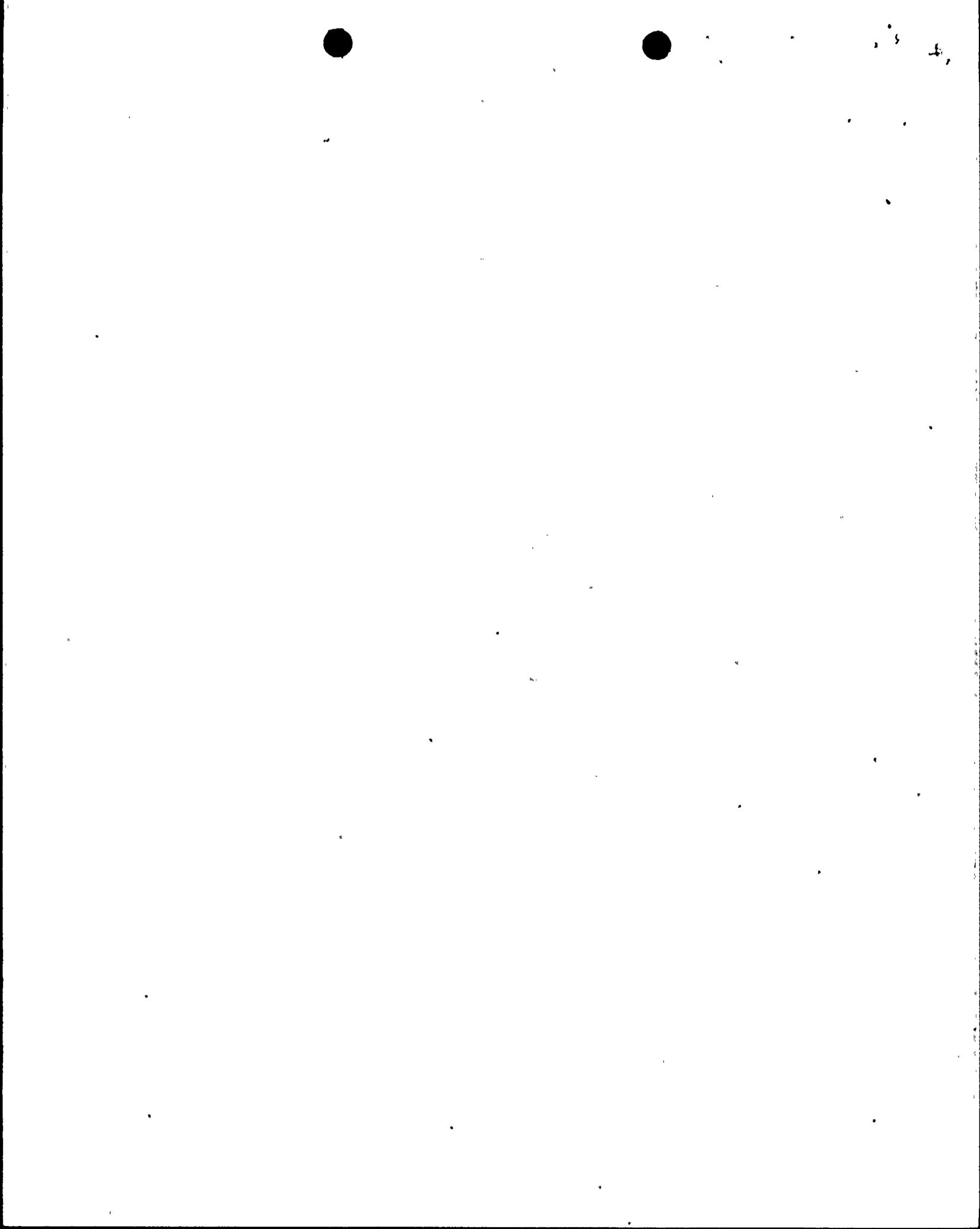
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PVNGS ITS 3.4.1 RCS PRESSURE, TEMPERATURE, AND FLOW DEPARTURE FROM NUCLEATE BOILING LIMITS

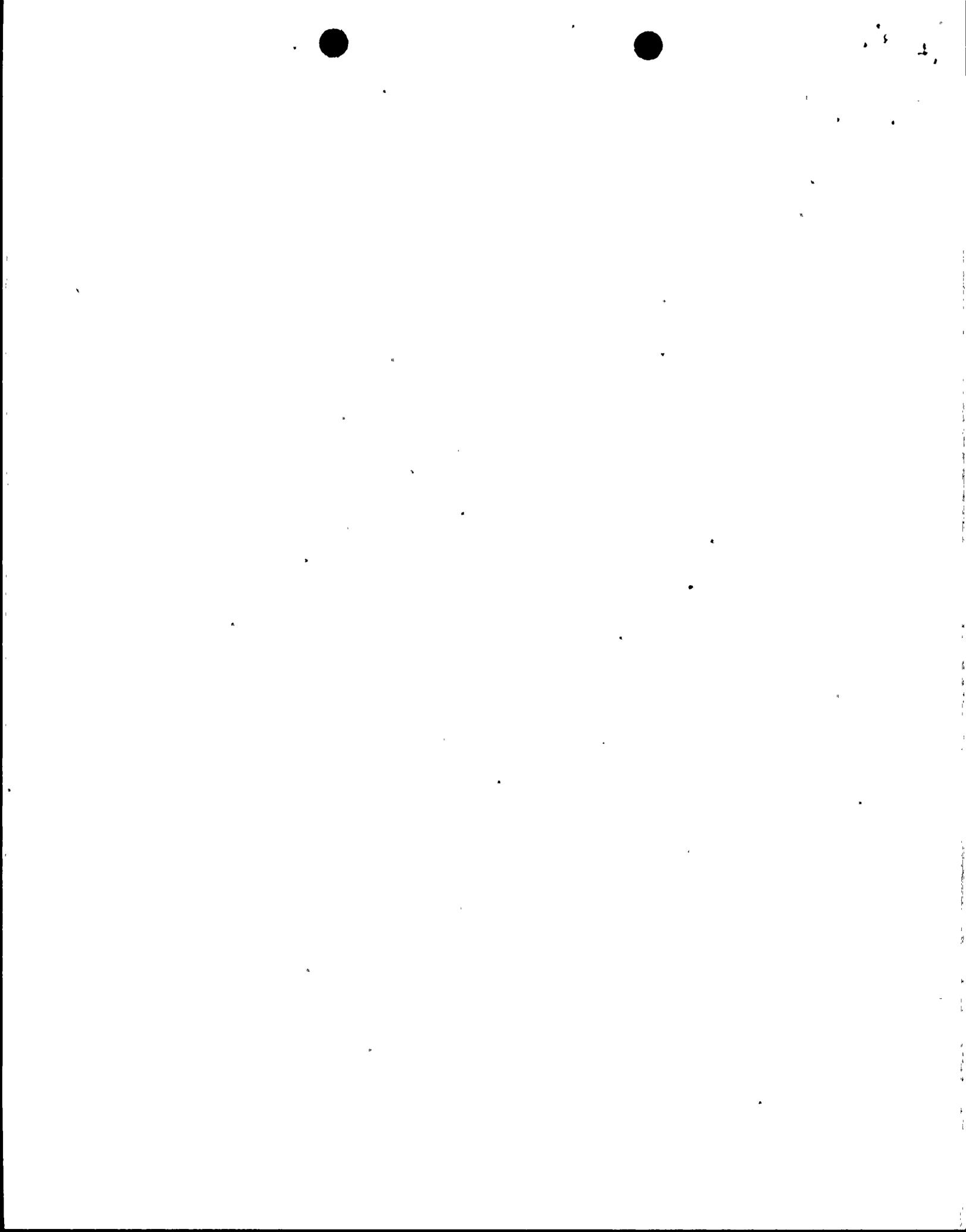
ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.1-1	A.3	CTS Figure 3.2-1 ITS Figure 3.4-1	DOC A.3 states "CTS 3.2.6, Figure 3.2-1, for Units 1, 2, and 3 is modified per TS Amendments No. 108, 100 and 80 for PVNGS Units 1,2 and 3 respectively, related to power uprate." What is the change? This DOC cannot be evaluated because the change is not identified. Also, the "endpoint" value of "100,560" is missing in the ITS "smooth" copy Figure.			
3.4.1-2	M.1	CTS 3.2.5 ITS SR 3.4.1.3, Note	A new note is added to CTS 4.2.5. This note requires RCS total flowrate met in MODE 1 with all RCPs running. This note is not included in the CTS. Given that ITS 3.4.4 requires two RCS loops to be OPERABLE and in operation and that ITS 3.4.4 BASES LCO section states that it includes having both pumps operating in both loops, it is unclear what need the note addresses. According to ITS 3.4.4, if the plant is in Mode 1 by definition all four pumps have to be operating.			



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PVNGS ITS 3.4.1 RCS PRESSURE, TEMPERATURE, AND FLOW DEPARTURE FROM NUCLEATE BOILING LIMITS -

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.1-3	L.2	CTS 3.2.5 Action	CTS 3.2.5 Action requires that thermal power be reduced to less than 5% within 4 hours when actual RCS flow rate is determined to be less than the limit. ITS 3.4.1, Condition A and B relax the Required Action requirement by allowing 2 hours to restore RCS flow plus allowing an additional 6 hours to reach Mode 2 if flow is not restored to within limits. Allowing more time, an additional 4 hours, for the Completion Time is less restrictive.			Was the 4 hours specified in the CTS an unreasonable amount of time to reduce power? If it is/was not, then 8 hours will not be either and the discussion provided does not explain anything. Why is the extension of the time acceptable from a plant safety perspective?



PVNGS ITS 3.4.1 RCS PRESSURE, TEMPERATURE, AND FLOW DEPARTURE FROM NUCLEATE BOILING LIMITS

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.1-4	JFD.3	ITS SR 3.4.1.4 and ITS 3.4.1.c, SR 3.4.1.3	<p>1. STS SR 3.4.1.4 is deleted which is a one time precision heat balance performed after refueling only once before reaching 90% RTP. JFD-3 indicates that use of the calorimetric will penalize the PVNGS safety analyses with less margin. However, having to perform the heat balance once every 18 months does not mean that the plant has to operate based on it (As stated by the licensee SRs 3.3.1.2 and 3.3.1.5 which allow either method). Rather, the heat balance is performed as a once a cycle check on the changes to the core configuration (See STS SR 3.4.14 bases). If SR 3.4.1.4 is not included how is this check accomplished and if it is not why doesn't it need to be?</p> <p>2. ITS 3.4.1.c and SR 3.4.1.3 are both missing the pounds-<u>mass</u> unit of measurement, as is in the CTS.</p>			What specifically in the current licensing basis justifies never doing the precision heat balance?
3.4.1-5	JFD 4	CTS 3.2.6 (#) footnote ITS 3.4.1 Applica- bility	This CTS footnote only applies to MODE 2. In the ITS markup and the smooth copy, as written it applies to both Modes 1 and 2. (Modes 1 and 2 Keff greater than or equal to one). This is confusing as it should be - Mode 1 and Mode 2, Keff greater than or equal to one, ... or per the Writer Guide each on separate lines.			



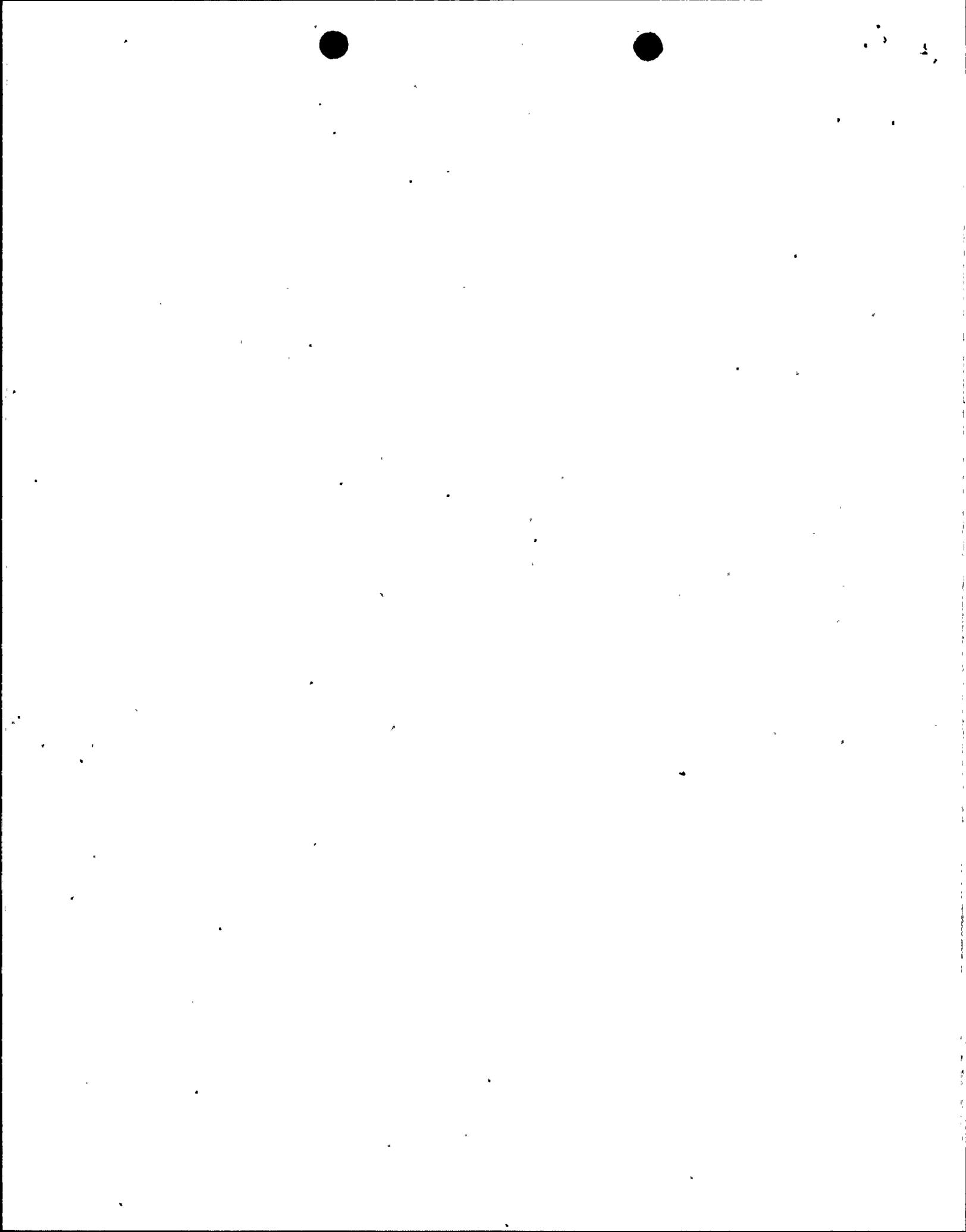
PVNGS ITS 3.4.2 RCS MINIMUM TEMPERATURE FOR CRITICALITY

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
No Com- ments			No Comments			



PVNGS ITS 3.4.3 RCS PRESSURE AND TEMPERATURE (P/T) LIMITS

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.3-1	A.3	CTS 3.4.8.1, Action/ ITS 3.4.3 Action A.2 and C.2	The CTS 3.4.8.1 Action requires an engineering evaluation to be performed to determine the effects of an out of limits condition on the structural integrity of the RCS and then separately a determination that the RCS remains acceptable for continued operations. A.3 justifies the accepting of the STS language as an administrative change by stating the CTS Action "requires an engineering evaluation to be performed to determine the effects of an out of limits condition in order to determine that the RCS remains acceptable" Such a reading implies that the two separate analyses of the CTS had one purpose rather than two separate purposes as implied by the CTS language. The A.3 reading of the CTS language should be further justified.			
3.4.3-2	JFD #2	ITS Figures 3.4.3-1, - 2, -3, & -4	These CTS Figures have been recreated for the ITS and there are errors and differences. The minimum temperature for boltup is now 30°F; the lower "core critical" is not connected to the line by being attached (as it is in CTS) or by an arrow. Therefore, it is unclear whether it is referring to the line or the region to the right of the line.			Revise the Figure to match the CTS requirements.



PVNGS ITS 3.4.3 RCS PRESSURE AND TEMPERATURE (P/T) LIMITS

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.3-3	LA.1	CTS 4.4.8.1.2	CTS 4.4.8.1.2, addresses the reactor vessel material irradiation Surveillance Requirements. ITS 3.4.3 does not contain this information. This information is moved to licensee controlled documents which are not identified by specific name, number, and location or method of control.			
3.4.3-4	L.1	CTS 3.4.8.1 Action	CTS 3.4.8.1, Action, allows 6 hours and 30 minutes (following out of limit parameters) to restore limits, to perform an engineering evaluation, and to determine that the RCS is acceptable for continued operation. If any action is not completed within the allowed time, then action must commence to place the plant in Mode 3. ITS 3.4.3, allows the evaluation to be completed within 72 hours before commencing actions to place the plant in Mode 3. L.1 needs justification, from a safety perspective, why it is acceptable to allow the plant to remain at pressure and temperature for the extended time while the evaluation is performed.			



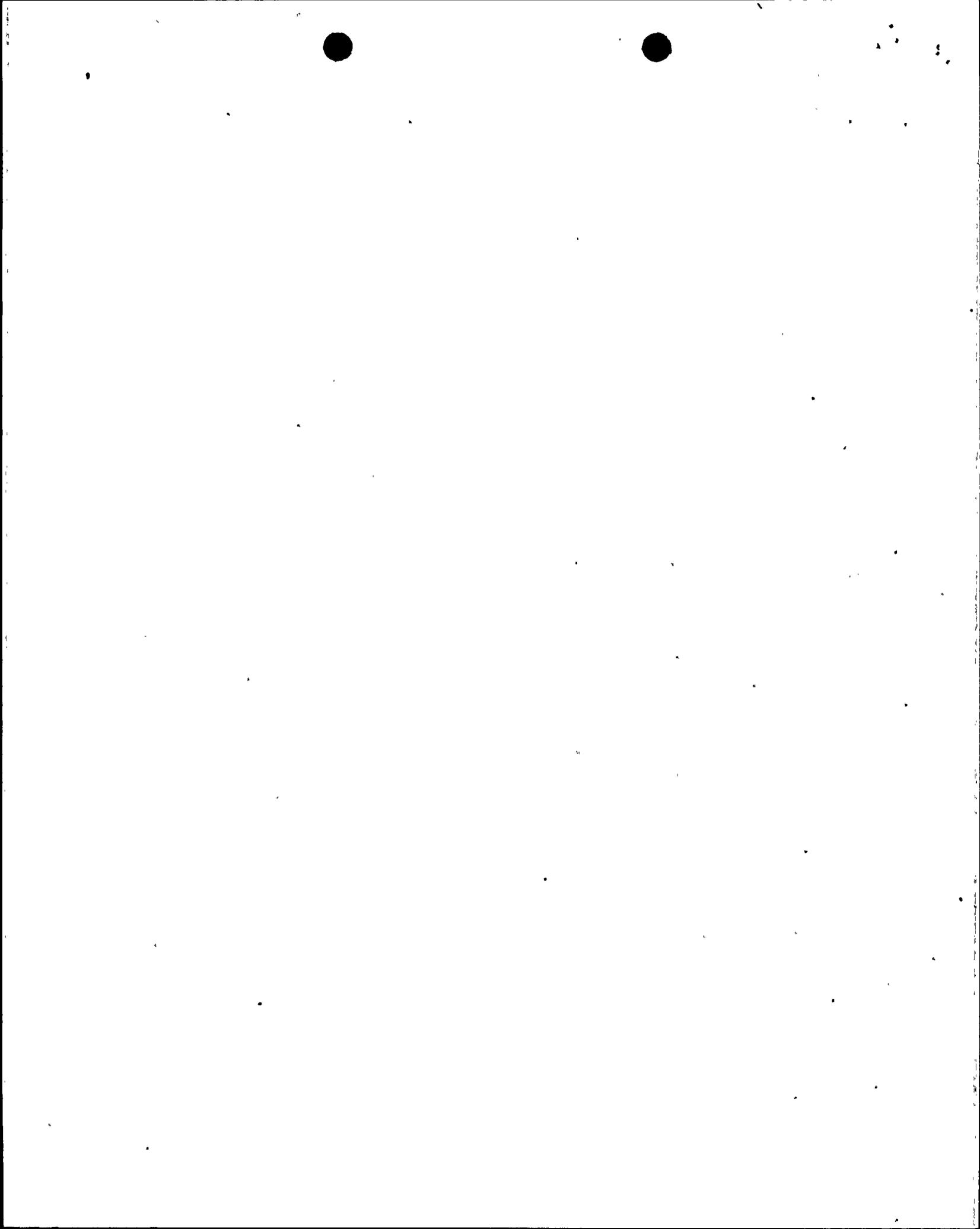
PVNGS ITS 3.4.4 RCS LOOPS - MODES 1 AND 2

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.4-1	None	ITS 3.4.4 Bases - LCO	The discussion of SG operability with respect to level is confusing in the Bases discussion. It says operability with regard to SG water level is ensured by RPS in Modes 1 and 2 by a trip at 44%. But then goes on to say that 25% level is the minimum at which the SG can be considered operable. What is implied but not stated is that the 25% applies in Modes other than 1 and 2. The STS language would be acceptable if the same level was to go in both places.			
3.4.4-2	L.1	CTS 3.4.1.1 Action	CTS 3.4.1.1 requires entering Mode 3 within 1 hour with less than 2 RCPs operating in each loop. ITS 3.4.4, Action A, requires entering Mode 3 within 6 hours with less than 2 RCPs operating in each loop. The relaxation of Completion Time for entering Mode 3 constitutes a less restrictive change. L.1 indicates that 6 hours is a reasonable time to get from full power to Mode 3 but then indicates that the RPS will put the plant there instantaneously if less than four RCPs operating is sensed. So why would 6 hours ever be a reasonable time?			



PVNGS ITS 3.4.5 RCS LOOPS - MODE 3

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.5-1	None	TS 3.4.5 Bases	The insert (#1) into the LCO Bases is vague and the intent is unclear - An operable SG is further defined as "the ability to feed and the ability to steam". What is that statement intending to address, having the proper valve lineup? Necessary water level is already addressed elsewhere (at least 25% wide range level) and given the definition of Mode 3, steam will be available.			Similar comment for ITS 3.4.6 LCO Bases



PVNGS ITS 3.4.6 RCS LOOPS - MODE 4

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.6-1	None	Bases ITS 3.4.6 LCO	RCPs required to meet section XI?			
3.4.6-2	None	Bases ITS 3.4.6 C.1 and C.2	The meaning of "Boron dilution requires forced circulation ... " is unclear.			Similar comment for Bases ITS 3.4.7 B.1 and B.2.
3.4.6-3	LA1	CTS 3.4.1.3	CTS 3.4.1.3 Footnote **, second paragraph, includes information about RCP operating limitations which is similar to the previous footnote requirements already included in the ITS as LCO Notes 1 and 2. Because the basis for limitations in the second paragraph is not discussed it is unclear whether or not the information meets the criteria of 50.36 c.2. ii its removal should be further justified or should be retained in the ITS.			



PVNGS ITS 3.4.6 RCS LOOPS - MODE 4

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.6-4	LA.2	CTS SR 4.4.1.3.3	CTS SR 4.4.1.3.3 contains a minimum flow rate that SDC must equal or exceed. This information will not be used in ITS SR 3.4.6.1 and it is moved to the Bases and to licensee controlled normal operating procedures for Surveillances. These Licensee Controlled Documents are not identified by specific name, number, and location nor is the method of control to those documents specified.			
3.4.6-5	LA.5	CTS SR 4.4.1.3.2	CTS SR 4.4.1.3.2 specifies that "indicated wide range" level is used for verification of SG level. All values in ITS SR 3.4.6.2 are indicated values. This information, about specifying the "indicated wide range level" instrumentation, less the word "indicated", is moved to ITS 3.4.6 Bases and to licensee controlled procedures. These Licensee Controlled Documents are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for procedures.			



PVNGS ITS 3.4.6 RCS LOOPS - MODE 4

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.6-6	JFD #4	ITS 3.4.6 LCO Note 2.a	STS 3.4.6 LCO Note 2.a uses pressurizer level as a condition to preclude RCS pressure surges when starting an RCP in MODE 4. ITS deletes this requirement only because it is not in the CTS. There is no technical justification for the deletion. In other words what in the current licensing basis justifies not having this condition?			



PVNGS ITS 3.4.6 RCS LOOPS - MODE 4

ISSUE #	DOC # of JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.7-1	LA.1	CTS 3.4.1.4.1	CTS 3.4.1.4.1 Footnote ##, second paragraph, includes information about RCP operating limitations which is similar to the previous requirements already included in the ITS as LCO Notes 1 and 2. Because the basis for the requirements in that paragraph are not discussed it is unclear whether or not the information can be relocated or should be retained.			Similar comment made in Section 3.4.6
3.4.7-2	JFD #5	ITS 3.4.7 LCO Note 3.a CTS 3.4.1.4.1	STS 3.4.7 LCO Note 3.a uses pressurizer level as a condition to preclude RCS pressure surges when starting an RCP in MODE 5. ITS deletes this requirement only because it is not in the CTS. There is no technical justification for the deletion. In other words, what in the current licensing basis justifies not having this requirement.			Similar comment made in Section 3.4.6



PVNGS ITS 3.4.7 RCS LOOPS - MODE 5, LOOPS FILLED

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.7-3	LA.2	CTS SR 4.4.1.4.1. 2	CTS SR 4.4.1.4.1.2 contains a minimum flow rate that SDC must equal or exceed. This information is not used in ITS SR 3.4.7.1 and it is moved to the Bases and to licensee controlled procedures. These Licensee Controlled Documents are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for procedures.			
3.4.7-4	None	Bases ITS 3.4.7 LCO	It would appear that reversing the order of the paragraphs or otherwise altering insert #1 would be appropriate in order to put the SG heat sink requirements together. As proposed the last existing par. will end with one statement on SG requirements and then after one paragraph of the insert some qualifications to that statement on SG heat sink capability are added.			



PVNGS ITS 3.4.7 RCS LOOPS - MODE 5, LOOPS FILLED

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.7-5	LA.3	CTS 3.4.1.4.1.b	<p>CTS 3.4.1.4.1.b specifies that "indicated wide range" level is used for verification of SG level. All values in ITS 3.4.7.2 are indicated values. This information is moved to ITS 3.4.7 Bases and to licensee controlled procedures. These Licensee Controlled Documents are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for procedures.</p>			



PVNGS ITS 3.4.8 RCS LOOPS - MODE 5, LOOPS NOT FILLED

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.8-1	M.1, M.4, and JFD #3	CTS 3.4.1.4.2 ITS 3.4.8	Contrary to the discussion in M.4, CTS requirements only allow a single SDC pump to be deenergized for up to an hour. STS Note 1 allows both trains to be deenergized for 15 minutes to switch trains. The ITS, as proposed, would allow both trains of SDC to be deenergized for up to one hour. This appears to be a less restrictive change that has not been justified.			
3.4.8-2	None	ITS 3.4.8 LCO Bases	In the 3.4.8 Bases, a SDC pump is defined as either a CS or LPSI pump. Is there some plant condition dependent reason that similar wording shouldn't also be included in the Bases for ITS 3.4.6 and 3.4.7? If so which pumps are considered SDC pumps in those TS? If not shouldn't similar language be included in the appropriate Bases location?			



PVNGS ITS 3.4.8 RCS LOOPS - MODE 5, LOOPS NOT FILLED

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.8-3	JFD #6 A.3	ITS 3.4.8 CTS 3.4.1.4.2	<p>ITS 3.4.8 Condition B is reworded because the licensee states "NUREG 1432 uses the term "required" in LCO Actions 3.4.5, 3.4.6 and 3.4.7 inconsistently." 3.4.8 appears to be the only place the ITS attempts to correct the supposed inconsistencies. If "required" is applied as described by the licensee, then Action B and the sentence in the Bases that has been changed to reflect that usage are inconsistent with the next sentence of the ITS Bases. The second Bases sentence states "Action to restore one SDC train to OPERABLE status ..." However, under the licensee's usage of the term "required", the ITS would never address having less than one OPERABLE train (and the intent of the other Bases sentence would be unclear). Under the proposed ITS, Action A would be for the OPERABLE but not operating train and Action B would be for the OPERABLE and operating train. The STS intended Action B to address two situations - two inoperable or none operating.</p>			<p>The STS intent should be complied with or the change justified on an adequate basis with the ITS Bases modified to remove the existing inconsistency.</p>



PVNGS ITS 3.4.8 RCS LOOPS - MODE 5, LOOPS NOT FILLED

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.8-4	LA.1	CTS 4.4.1.4.2	CTS SR 4.4.1.4.2 contains a minimum flow rate that SDC must equal or exceed. This information will not be used in ITS SR 3.4.8.1 and it is moved to Licensee Controlled Documents which are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for procedures.			



PVNGS ITS 3.4.9 PRESSURIZER

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.9-1	LA.1	CTS 4.4.3.1.3	<p>CTS 4.4.3.1.3 tests the emergency power supply for the pressurizer heaters. The STS SR 3.4.9.3 only requires tests if the heaters are not permanently connected to Class 1E power supplies. PVNGS pressurizer heaters are permanently connected to class 1E power. Therefore, the CTS requirements for this Surveillance can be relocated to Licensee controlled Documents. The discussion indicates that this requirement is relocated to the Bases section. However, review of the Bases shows no discussion of the requirements of CTS 4.4.3.1.3.</p>			
3.4.9-2	<p>JFD #4</p> <p>LA.2</p>	<p>ITS 3.4.9</p> <p>CTS 3.4.3.1</p>	<p>STS and ITS 3.4.1 each contains the an exclusion for pressurizer pressure range limits during transients. In ITS 3.4.9 a similar exclusion is being made for pressurizer water level and the CTS usage of the term "steady state" does support having some range of exclusion. However, the ITS 3.4.9 exclusion should have a justification similar to L.1 of 3.4.1. Additionally, "water" should be added before "level" in the proposed Note in order to make it consistent with ITS LCO 3.4.9 a.</p>			



PVNGS ITS 3.4.10 PRESSURIZER SAFETY VALVES - MODES 1, 2, AND 3

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.10-1	LA.1	CTS 3.4.2.2	CTS LCO 3.4.2.2, footnote **, contains maintenance information concerning the approved method for setting pressurizer safety valve lift setpoints. ITS 3.4.10 does not contain this information since it is moved to Licensee Controlled Documents which are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for procedures.			
3.4.10-2	LA.2 JFD #1	CTS 3.4.2.2 Action ITS 3.4.10, Action B.2	CTS 3.4.2.2 Action requires entry into Mode 4 with Shutdown Cooling System suction line relief valves aligned to RCS if all safety valves are inoperable. ITS 3.4.10, Action B.2 only requires entry into Mode 4. Under the proposed ITS construction with two separate LCOs, 3.4.10 will allow 12 hours to get to Mode 4 and then 3.4.11 will allow another 12 hours to establish the SDC relief. CTS gives a total of 12 hours to get to that condition and the STS also allows 12 hours to get to the equivalent condition.			

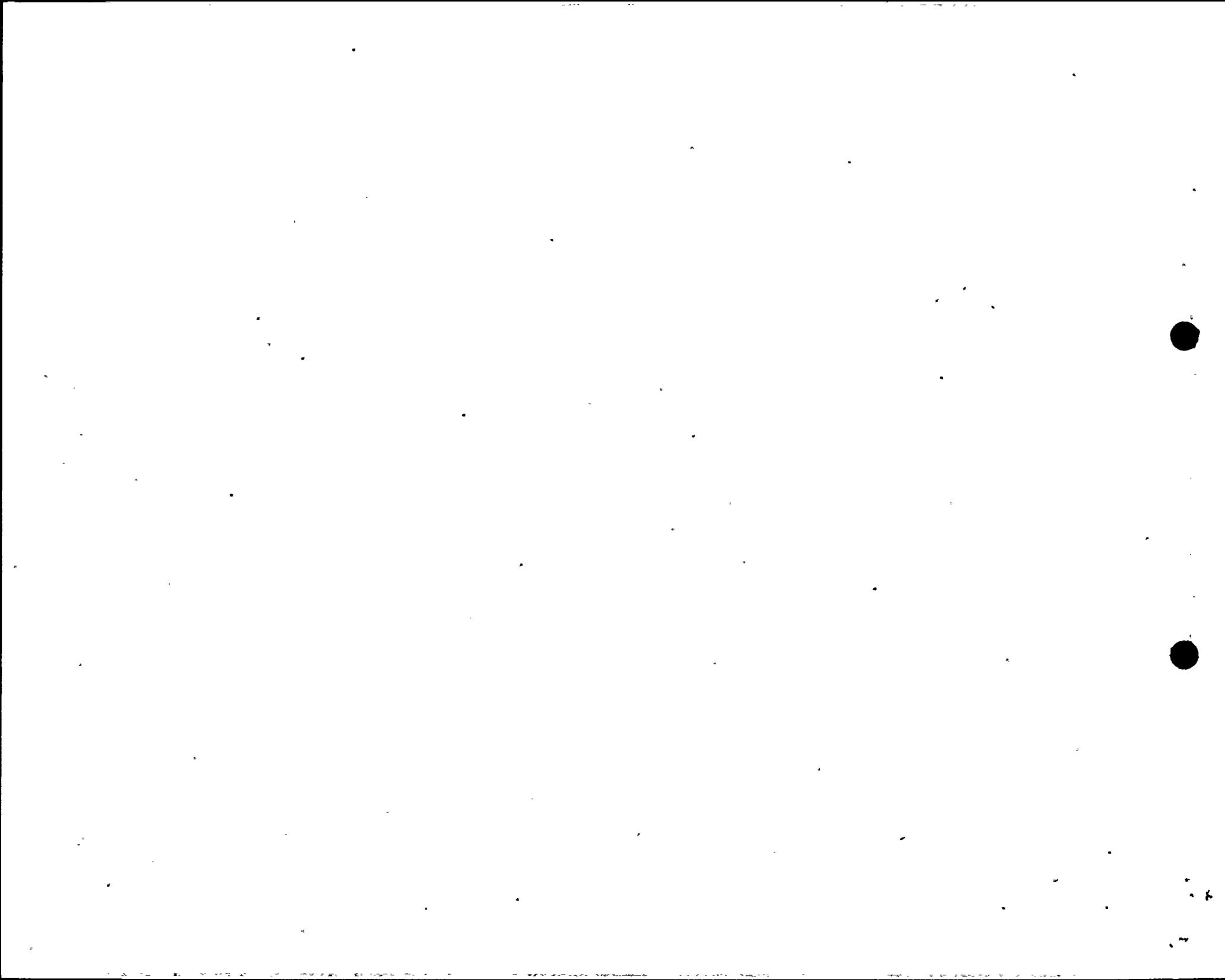


PVNGS ITS 3.4.10 PRESSURIZER SAFETY VALVES - MODES 1, 2, AND 3

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.10-3	None	ITS 3.4.10 Bases Applica- bility	ITS 3.4.10 Bases Applicability states that overpressure protection is not required in MODE 6 with the reactor vessel head detensioned (fully?). ITS 3.4.11 Bases Background states it as MODE 6 with head on. ITS 3.4.11 Bases Applicability states it as head <u>fully</u> detensioned. ITS 3.4.12 Bases Applicability also states it as fully detensioned. ITS 3.4.13 Applicability is MODE 6 when the head is on and the BASES of that Applicability states when it is not required as Head off <u>or</u> fully detensioned (where does less than fully detensioned fit?). Given the different methods of relief in different Modes or conditions, some of the differences may be justified. However, within the same TS and between TS that use the same method of relief the statements should be verified as being consistent.			

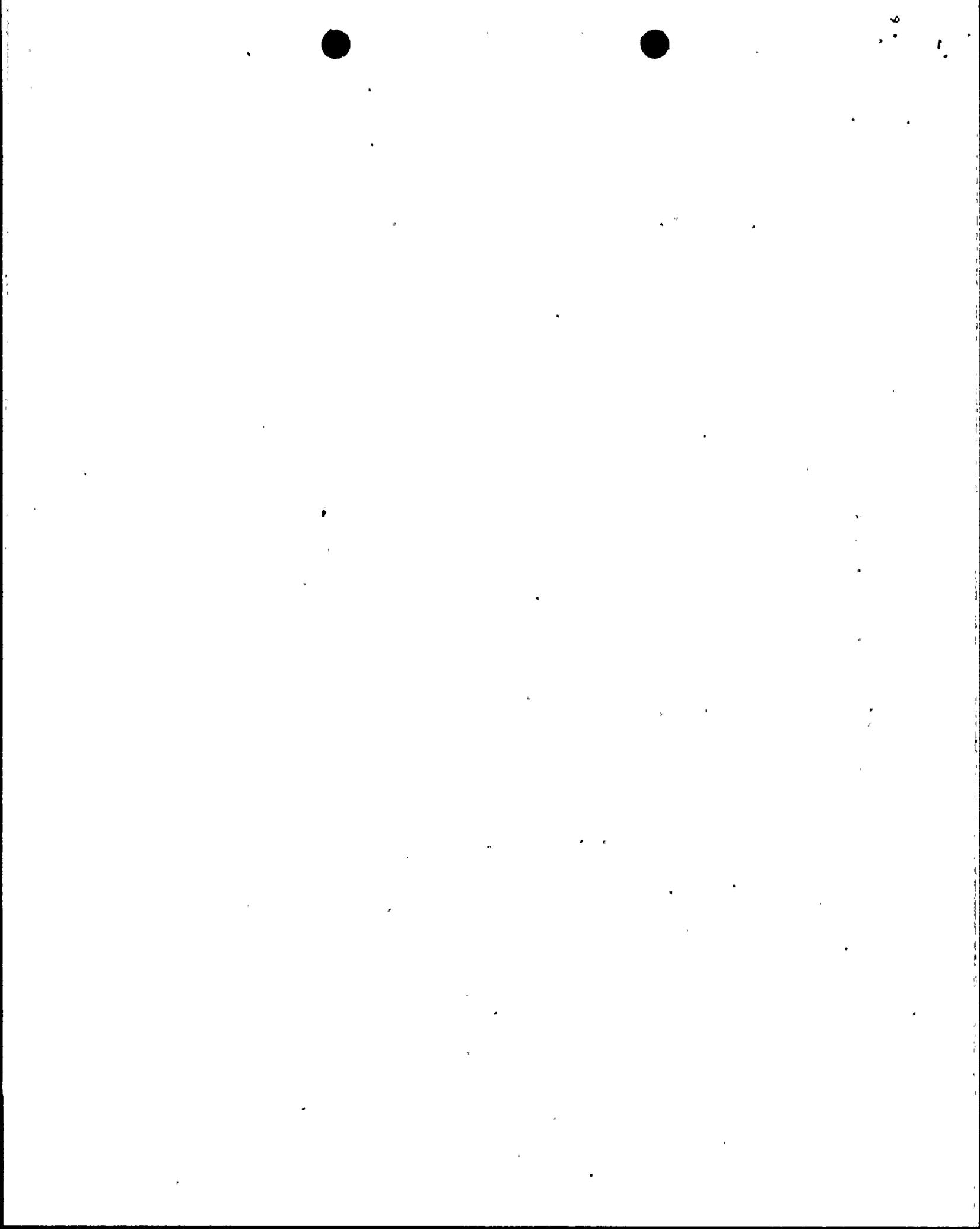
PVNGS ITS 3.4.11 PRESSURIZER SAFETY VALVES - MODE 4

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.11-1	LA.1	CTS 3.4.2.1	CTS 3.4.2.1, footnote *, contains maintenance information concerning the approved method for setting pressurizer safety valve lift setpoints. ITS 3.4.11 does not contain this information since it is moved to Licensee Controlled Documents which are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for procedures.			
3.4.11-2	L.1	CTS 3.4.2.1 Action a ITS 3.4.11, Condition A	CTS 3.4.2.1 Action a, requires the "immediate" suspension of all operations involving positive reactivity changes and placing an SDC loop into operation. ITS 3.4.11 requires only one SDC suction line relief valve in service in 12 hours, or the unit in a condition where the LCO does not apply in 20 hours. The deletion of the requirement to suspend all operations involving positive reactivity can be evaluated without a discussion of specifically why that requirement was in the CTS.			



PVNGS ITS 3.4.11 PRESSURIZER SAFETY VALVES - MODE 4

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.11-3	L.2 JFD #5	CTS 3.4.2.1 Insert #1 ITS 3.4.11	CTS 3.4.2.1, Action b, allows the suspension of CTS 3.0.4 for up to 12 hours for entry into Mode 4 for the purpose of setting the pressurizer safety valve lift settings under ambient conditions, provided a preliminary cold setting was made prior to heatup. ITS 3.4.11 contains the same requirements in an Applicability Note except 72 hours is allowed following entry into Mode 3. The ITS note is not correct because this LCO is only Applicable for Mode 4.			A similar comment applies to the ITS 3.4.10 Note except that in that case the reference to MODE 4 is inappropriate for an LCO that is only applicable in MODE 3.
3.4.11-4	JFD #4 JFD #6	ITS 3.4.11 Required Action A.1	The JFD #4 is confusing because 1) it refers to a pressure limit which is not indicated in either the CTS or the ITS markup (the type of overpressure protection required is dictated by temperature) and 2) the SDC reliefs can only provide overpressure relief at their setpoints and not "at a pressure less than" that setpoint. JFD #6 states that the 8 hour Completion Time is in accordance with the PVNGS licensing basis. It is not in the CTS.			



PVNGS ITS 3.4.12 PRESSURIZER VENTS

<p>3.4.12-1</p>	<p>JFD #1 A.2 A.3 M.1 LA.1 LA.2 LA.3 L.1</p>	<p>ITS 3.4.12 CTS 3.4.10</p>	<p>The ITS 3.4.12 retains the requirements for pressurizer pathway vents and relocates the reactor vessel head vents. The issues identified are as follows: (1) The CTS specified two vents paths operable. ITS relocated the reactor vessel head vent path (leaving one vent path) and then in the ITS, pressurizer vent path became four vents paths. The first sentences of the Bases - Background, Applicable Safety Analyses and LCO further illustrate the confusing multiple uses of the term "vent path" (2) The Bases Background states that the vent paths are of "appropriate quality class to conform to existing standards" What are the appropriate quality classes for - piping, valves, solenoids? Existing standards for what? Are the classes and standards described in the FSAR or other design document so that it can be referenced? Just making the statement provided raises as many questions as it answers. (3) The Bases Background states "No single active failure can prevent the RCGVS from performing its design function." Now however, with one vent path of the RCGVS relocated out of ITS, it leaves only one vent path in the ITS. Is the necessary design function assured by what is left in ITS? This situation is</p>			
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PVNGS ITS 3.4.12 PRESSURIZER VENTS

3.4.12-1 (con- tinued)	-	-	<p>DOC or JFD provided. Provide explanation and discussion as necessary. (4) The Bases state vent path satisfies Criterion #3 and JFD #1 states it meets Criterion #4. (5) PVNGS states the ITS is consistent with the licensing basis when the proposed LCO appears, throughout, to be a less restrictive than the CTS (as the reactor vent which was in the CTS has been removed). Why was the reactor vent in the CTS? (6) The A.3 & LA.1 DOCs make various statements that regardless of a valves position, it is not determining; or, it does not directly relate to flow path operability. The operability of a flowpath is directly related to required position of the valve. Therefore, the intent of the discussion is unclear.</p>			

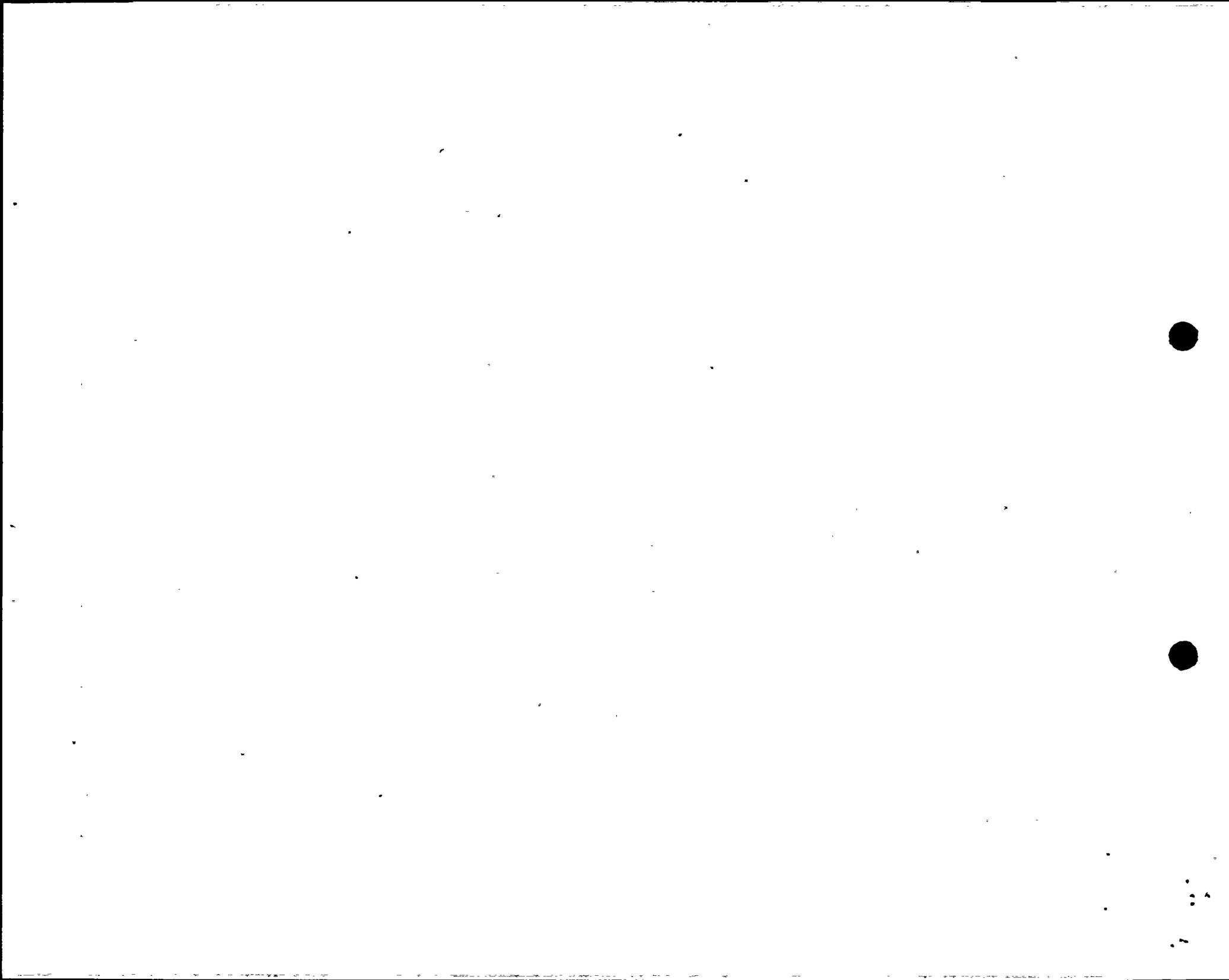


PVNGS ITS 3.4.12 PRESSURIZER VENTS

3.4.12-2	A.3	CTS 3.4.10	<p>CTS LCO 3.4.10 requires the pressurizer vent paths to be "operable and closed." ITS 3.4.12 requires pressurizer vent paths to be operable, but does not detail "and closed." PVNGS states the necessity for the closed vent paths is adequately addressed in the ITS 3.4.14 for "RCS LEAKAGE." However, if the vent was intentionally opened under procedural control for some reason other than performing its intended post-accident function how would ITS 3.4.14 apply? Precluding operation of the vent system, other than when required to perform its intended function appears to be the reason "and closed" was in CTS. Without an explanation of why the "and closed" is in the CTS, a conclusion on A.3 cannot be reached and the appropriateness of removing the reactor coolant vent with its similar provision, cannot be fully evaluated.</p>			

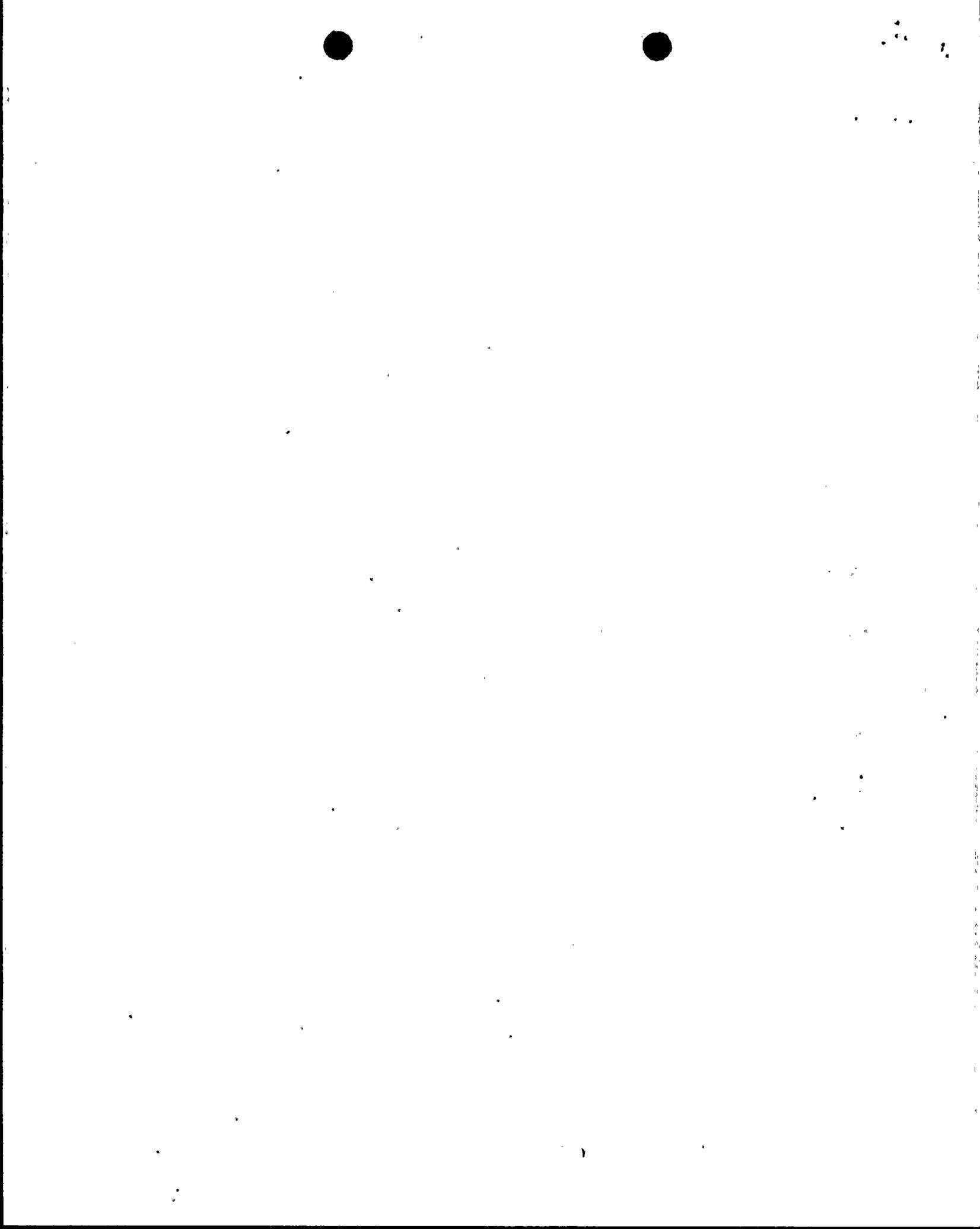
PVNGS ITS 3.4.12 PRESSURIZER VENTS

3.4.12-3	LA 2 and LA.3	CTS 4.4.10	<p>CTS SR 4.4.10 requires vent path Surveillances be performed "when in MODES 5 or 6." Also, CTS SR 4.4.10.b details that the method for cycling each vent valve be "from the control room." PVNGS states these are not needed in the ITS SRs; however, 1) specifically where they will be located to and how they will be controlled is not stated and 2) specifically restricting the SR to Modes 5 and 6 may appropriately be required for the ITS (see comment #2 above).</p>			



PVNGS ITS 3.4.13 LOW TEMPERATURE OVERPRESSURE PROTECTION (LTOP) SYSTEM

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.13-1	A.3	CTS 3.4.8.3 Action f	The CTS states that the provisions of 3.0.4 are not applicable to this Specification; so, the ITS 3.4.13 has deleted this requirement. ITS 3.0.4 has an exclusion that states Mode 5 and Mode 6 are not applicable. The Applicability of the ITS 3.4.13 includes MODE 4. The ITS appears to still need the 3.0.4 exclusion or changes to ITS Condition B (formerly STS Condition F) to account for changing from Mode 5 to Mode 4 (According to ITS 3.0.4 Bases, ITS 3.0.4 is applicable in that situation).			
3.4.13-2	M.1	CTS 3.4.8.3 ITS 3.4.13.b	The following more restrictive change was added to the markup of CTS 3.4.8.3 as new item stating "The RCS depressurized and an RCS vent of \geq 16 square inches." There is no M.1 DOC justification provided in the submittal.			



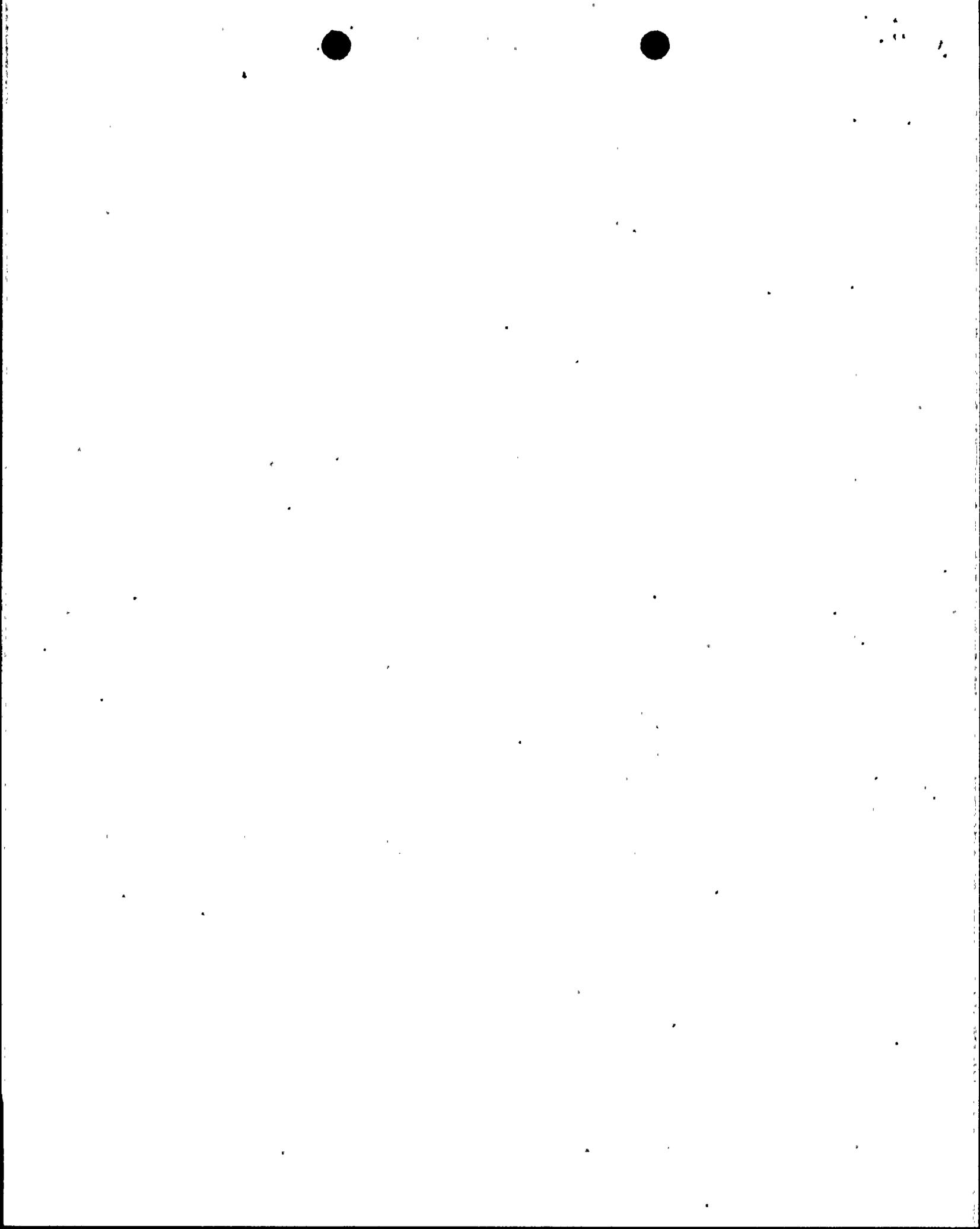
PVNGS ITS 3.4.13 LOW TEMPERATURE OVERPRESSURE PROTECTION (LTOP) SYSTEM

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.13-3	LA.1	CTS 3.4.8.3 Actions a, b, and c	The CTS provides information about restricting RCP starts with SG water temperature > 100 °F above cold leg temperature. This is one of two limiting events for the Shutdown Cooling System suction line relief valve. ITS 3.4.13 does not contain this information; however, this restriction is located and clearly stated in ITS 3.4.6, Note 2.b and in ITS 3.4.7, Note 3b for Modes 4 and 5, respectively. Given that the event in question is most limiting specifically for the SDC, it is unclear why it is not included in ITS 3.4.13 as well. In any case, the justification in LA.1 is inconsistent with restrictions in place in other portions of the ITS.			



PVNGS ITS 3.4.13 LOW TEMPERATURE OVERPRESSURE PROTECTION (LTOP) SYSTEM

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.13-4	LA.2	CTS 3.4.8.3, Actions b and c.	The CTS states that with one or two Shutdown Cooling System suction line relief valves not operable in Modes 4, 5 or 6; either (1) restore the valve to operable status or (2) reduce cold leg temperature to less than 200°F, and (3) complete depressurization and venting the RCS through at least 16 sq. in. vent(s) in the respective AOTs. The reducing cold leg temperature is relocated to plant procedures however, the specific procedure and specific method of control are not provided.			



PVNGS ITS 3.4.13 LOW TEMPERATURE OVERPRESSURE PROTECTION (LTOP) SYSTEM

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.13-5	L.1 JFD #12	CTS 3.4.8.3, Action d ITS SR 3.4.13.2	The L.1 DOC states there are no valves in the RCS vent pathway which, indicates the DOC was written with a certain vent path (one welded or otherwise sealed during operations) in mind. However, CTS 3.4.8.3, Action d clearly requires verification of the RCS vent pathway when the pathway is <u>provided by a valve(s)</u> that is locked, sealed, or otherwise secured in the open position. The CTS appears to provide for the possibility of different vent paths or a combination of paths (some with valves in them) to provide the required 16 square inches of vent. If PVNGS will only use one vent path then, ITS as proposed is acceptable as long as it is made clear in the Bases that only that vent is to be used. If use of alternate vent paths is to be allowed then the requirement to verify valves needs to be included in the ITS.			



PVNGS ITS 3.4.13 LOW TEMPERATURE OVERPRESSURE PROTECTION (LTOP) SYSTEM

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.13-6	JFD #1, JFD #2	ITS 3.4.13	<p>The following STS requirements were deleted from the ITS: (1) LCO statement; (2) Applicability Note; (3) Conditions A, B, C, and D; (4) SRs 3.4.12.1, 2, and 3. These deleted parts contained various requirements restricting operation of HPSI pumps, charging pumps and the SITs to prevent exceeding the relief capacity of LTOP system; and thus, overpressurize the RCS. JFD #2 statements concerning RCPs are inconsistent. First it says there are limits on RCPs in the ITS (which is true) and then it says that "this" (referring to the previous sentence on RCPs and ITS?) is acceptable because operation of "this equipment and RCPs" is either controlled by plant procedures or within design relief capacity. Second, given that the two most limiting events for LTOP are starting the RCP and inadvertent SIAS with two HPSI pumps injecting (see Insert #1 for Bases 3.4.13) and the second of these two limiting conditions is already included elsewhere in the ITS, the logic of excluding the first is not clear.</p>			



PVNGS ITS 3.4.13 LOW TEMPERATURE OVERPRESSURE PROTECTION (LTOP) SYSTEM

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.13-7	JFD #4	ITS 3.4.13	The STS requirements of SRs 3.4.12.5 were deleted from the ITS. Operability of the SDC suction reliefs is dependent on RCS isolation valves SI-651, 652, 653 and 654 being fully open. Therefore, it is unclear why no verification of valve position is periodically required similar to that required for the PORV block valves in the STS.			
3.4.13-8	None	CTS 3.4.8.3 Action e ITS 5.6.4	This Action is moved to ITS 5.6.4 per the CTS markup. The text in ITS 5.6.4 does not include the CTS requirement for special reports for events when "an RCS vent(s)" ("vent" would be appropriate if ITS is only to allow a single vent path) are used to mitigate an RCS pressure transient. This would be a less restrictive change.			



PVNGS ITS 3.4.14 RCS OPERATIONAL LEAKAGE

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.14-1	LA.1	CTS 4.4.5.2.1.b	CTS 4.4.5.2.1.b requires monitoring the containment sump inventory and discharge every 12 hours. The ITS does not retain this CTS requirement. The moving of the CTS requirements to licensee controlled documents are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for procedures.			
3.4.14-2	LA.1	CTS 4.4.5.2.1.d	CTS 4.4.5.2.1.d requires the reactor head flange leakoff system to be monitored every 24 hours. The ITS does not retain this requirement. However, where it is relocated to is not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for procedures.			



PVNGS ITS 3.4.15 RCS PRESSURE ISOLATION VALVE (PIV) LEAKAGE

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.15-1	LA.2	CTS 4.4.5.2.2. c	CTS 4.4.5.2.2.c requires a demonstration of operability following maintenance, repair, or replacement work. ITS 3.4.15 does not specify any such requirements because these CTS requirements are moved to licensee controlled documents. These licensee controlled documents are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for these documents.			
3.4.15-2	LA.3	CTS 4.7.11	CTS 4.7.11 states that performance of the Surveillance is accomplished during shutdown. ITS SR 3.4.15.2 does not specify the plant condition under which the Surveillance is performed because these CTS requirements are moved to licensee controlled documents. These licensee controlled documents are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for these documents.			



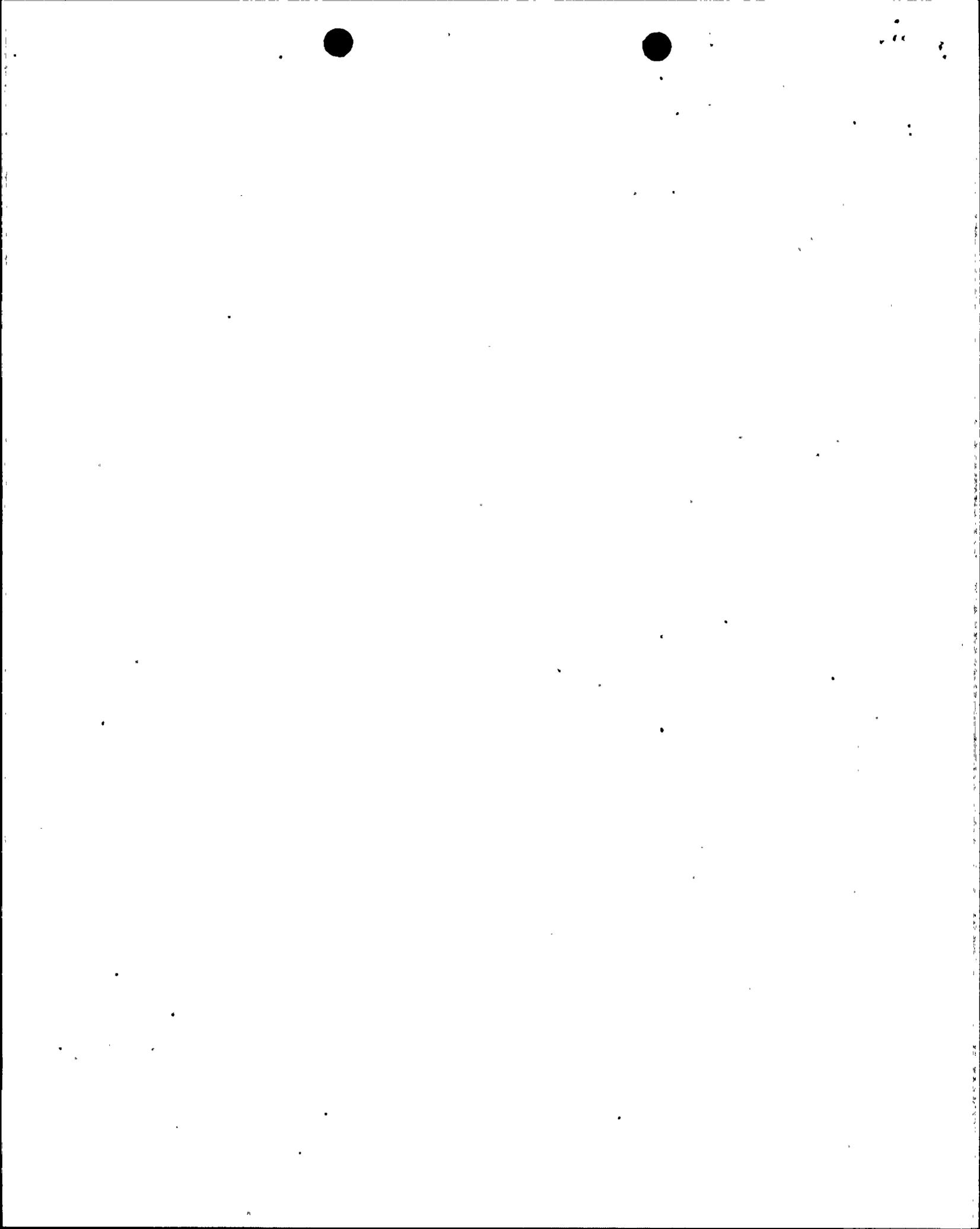
PVNGS ITS 3.4.15 RCS PRESSURE ISOLATION VALVE (PIV) LEAKAGE

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.15-3	L.3	CTS 3.4.5.2, Action c	CTS 3.4.5.2, Action c, only allows the use of one manual or de-energized automatic valve. ITS 3.4.15, Required Action A.1, allows the use of one manual, de-energized automatic, or check valve to perform the function of isolation. Further discussion of why PVNGS previously did not use the check valves even though they were leak tested should be provided. Additionally, discuss the acceptability of check valve isolation for those cases in which the next available isolation is not a check valve tested to PIV requirements.			
3.4.15-4	JFD #4 LA.1	ITS 3.4.14 Action A CTS 4.4.5.2.2 Footnote "**"	CTS 4.4.5.2.2 Footnote "*" states "Provisions of Specification 4.4.5.2.2.b, d, and e are not applicable for the SDC valves due to a position indication of valves in the control room." CTS Table carries this provision for 4.4.5.2.2.d only. Which is the current licensing basis? The appropriate discussion should be modified to address this difference.			



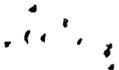
PVNGS ITS 3.4.15 RCS PRESSURE ISOLATION VALVE (PIV) LEAKAGE

ISSUE #	DOC # or JFD #	CTS/STS REF.	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.15-5	JFD #6	ITS SR 3.4.15.2	It appears the use of the term "ITS" should be "STS" in the JFD.			



PVNGS ITS 3.4.16 RCS LEAKAGE DETECTION INSTRUMENTATION

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.16-1	LA.1	CTS 3.3.3.1, Table 3.3-6	CTS 3.3.3.1, Table 3.3-6, contains the particulate and gaseous radioactivity monitor alarm setpoint and measurement range. ITS 3.4.16 does not contain this detailed information because these CTS requirements are moved to licensee controlled documents. These licensee controlled documents are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for these documents.			



PVNGS ITS 3.4.16 RCS LEAKAGE DETECTION INSTRUMENTATION

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.16-2	LA.2	CTS 3.3.3.1, Table 3.3-6, Action 27	CTS 3.3.3.1, Table 3.3-6, Action 27, requires the preparation and submittal of a special report to the commission within 30 days outlining the action taken, cause of the inoperability, and the plans and schedule for restoring the system to operable status. ITS 3.4.16 does not contain this information. The moving of the CTS requirements to licensee controlled documents are not identified by specific name, number and location. Also, the identity of the regulatory change control process is not identified for these documents.			



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PVNGS ITS 3.4.16 RCS LEAKAGE DETECTION INSTRUMENTATION

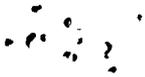
ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.16-3	L.1 and JFD #1	ITS 3.4.16 New Actions Note	<p>CTS 3.3.3.1 Action c states the provisions of Specification 3.0.3 and 3.0.4 are not applicable. STS 3.4.15 adds an LCO 3.0.4 exemption to only Condition A and B. ITS 3.4.16 adds an LCO 3.0.4 exemption to all the Required Actions. Contrary to L.1, this is <u>NOT</u> consistent with the STS. Applying an LCO 3.0.4 to Conditions C and D introduces an ambiguity. LCO 3.0.4. already contains specific language to allow such Actions (SD tracks) to be complied with, so why is a condition written to apply (by not applying in such situations) now exempted?</p>			



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PVNGS ITS 3.4.16 RCS LEAKAGE DETECTION INSTRUMENTATION

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.16-4	JFD #2	ITS 3.4.16 LCO, Condition s A, B, C & D, SR 3.4.15.5 CTS 3.4.5.1	<p>The number of gas and particulate channels at PVNGS is unclear. CTS Table 3.3-6 #2 requires a minimum of two operable channels and from the construction of the table that seems there is one of each type. Similarly, ITS LCO 3.4.16 b indicates there is one monitor with two channels and ACTION B should be read to apply if either channel is inoperable (JFD #2 is consistent with that reading). However, ITS 3.4.16 Bases Actions B.1.1, B.1.2 and B.2 states "With either gaseous or particulate containment..." Indicating two of each type. If the intent of the Bases was to be consistent with the above discussion, the Bases should be changed to read "With either <u>the</u> gaseous ..." (also make channel singular).</p>			



PVNGS ITS 3.4.16 RCS LEAKAGE DETECTION INSTRUMENTATION

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.16-5		ITS SR 3.4.16.3	The CTS Table 4.3-3 is referenced as containing the requirements for the CHANNEL CALIBRATION of the required containment sump monitor. The portion of the Table provided did not contain the containment sump monitor therefore, this CTS requirement cannot be verified.			



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PVNGS ITS 3.4.17 RCS SPECIFIC ACTIVITY

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4-17-1.	LA.1	CTS SR Table 4.4-4, Item 4.b.	CTS Table 4.4-4 Item 4.b states that one sample is sufficient if the plant has gone through a unit shutdown or is completed in 6 hours. The ITS does not retain this type of detail for performing surveillance requirements which are moved to licensee documents. LA.1 states the information is moved to the BASES. A review of the BASES shows this change was not made.			



PVNGS ITS 3.4.17 RCS SPECIFIC ACTIVITY

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4.17.2	JFD #5	ITS SR 3.4.17.2	<p>STS SR 3.4.17.2 has a note under the surveillance column which reads "Only required to be performed in MODE 1". PVNGS proposes this is better placed in the frequency column. 1) This is contrary to the convention used in STS and elsewhere in the ITS, and 2) it is unclear that the licensee interpretation of the SR in the JFD and Bases is correct (having to perform the SR after a reactor trip). It is true that a power change of greater than or equal to 15% RTP has occurred upon a trip and the plant is still in a Mode of Applicability. However, the plant is no longer in Mode 1 (where the SR is to be performed) and Required Action A.1 which requires compliance with Figure 3.4.16-1 would have to be addressed. Given the plant would now then in Mode 3, how would that Figure be entered? Based on the last power level before the trip, some average power based on time since the trip, or would it be ignored?</p>			<p>Given that fuel failures are most likely after large power changes, sampling for activity following a Rx trip is prudent. However, the SR is unclear as to whether that is required and it is questionable as to how Required Action A.1 would be applied. The licensee should pursue its position through the CEOG.</p>



PVNGS ITS 3.4.17 RCS SPECIFIC ACTIVITY

ISSUE #	DOC # or JFD #	CTS/STS REF	DESCRIPTION OF ISSUE	DATE OPENED	DATE CLOSED	COMMENTS
3.4-17-3	None	ITS Figure 3.4-1 (Smooth Copy)	The ITS Figure 3.4-1 (Smooth Copy) does not match the CTS Figure 3.4-1. The horizontal line at 80% power dividing acceptable and unacceptable operation appears to be at "65" rather than the intended "60". Also, "reactor coolant" is used instead of "primary coolant" in three places.			



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