

February 10, 1994

Ray Baker, Chairman  
BWR Technical Specifications Committee  
Southern Nuclear Operating Company  
P. O. Box 1295  
Birmingham, Alabama 35201

Dear Mr. Baker:

Enclosed are the results of the staff's review of the following packages of changes the BWR Owners Group proposed for the standard technical specifications:

- BWR-14 C.1 to C.7
- BWR-17 C.1 to C.13
- BWR-18 C.1 to C.87
- BWR-20 C.1 to C.19

The staff's review of BWR-15, BWR-16, and BWR-19 has been delayed by unexpected events, and our efforts to sustain the lead-plant conversion reviews and other high-priority tasks. We will forward the review results for these other comment packages as soon as they can be completed.

You will note that the enclosed listings identify questions and difficulties with the proposed changes. As we discussed at the Owners Groups meeting in December 1993, I suggest that we arrange meetings to discuss and resolve these questions. The meetings should be arranged with appropriate technical experts to clarify the purpose and result of the proposed changes, or alternate changes. We request that the Owners Groups propose a schedule by which such meetings could be conducted at the NRC's offices in Rockville. We will coordinate the proposed schedule with the technical staff, and confirm the meeting times and locations. Should you have any question regarding this matter, please contact me.

1. RETURN TO REGULATORY CENTRAL FILES ROOM.

Sincerely,

003014

9403080125 940210  
PDR ORG NRRB  
PDR

Original Signed By  
Christopher I. Grimes, Chief  
Technical Specifications Branch  
Division of Operating Reactor Support

Enclosures:  
As stated

- cc: L. Bush, WOG
- B. Woods, CEOG
- B. Wunderly, BWOG
- W. Hall, NUMARC
- D. Hoffman, EXCEL

DISTRIBUTION:

Central Files	AEChaffee
PDR	SWeiss
OTSB R/F	AKugler
BKGrimes	MSchwartz
OTSB Staff	CMarco

DOCUMENT: G:\BWROGSTS.LTR

OTSBB:DORS	OTSBB:DORS	OTSBB:DORS	OTSBA:DORS	C:OTSB:DORS
CSSchulter <i>CS</i>	RJGiardina <i>HA</i>	PCHearn <i>PC</i>	EBTomlinson <i>EB</i>	CIGrimes <i>CS</i>
2/15/94	2/10/94	2/15/94	2/10/94	2/10/94

040074

X-OTM-6-meeting  
X-RD-10-1  
X-RD-8-2 B+W

*CS*  
11



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555-0001

February 10, 1994

Ray Baker, Chairman  
BWR Technical Specifications Committee  
Southern Nuclear Operating Company  
P. O. Box 1295  
Birmingham, Alabama 35201

Dear Mr. Baker:

Enclosed are the results of the staff's review of the following packages of changes the BWR Owners Group proposed for the standard technical specifications:

BWR-14 C.1 to C.7  
BWR-17 C.1 to C.13  
BWR-18 C.1 to C.87  
BWR-20 C.1 to C.19

The staff's review of BWR-15, BWR-16, and BWR-19 has been delayed by unexpected events, and our efforts to sustain the lead-plant conversion reviews and other high-priority tasks. We will forward the review results for these other comment packages as soon as they can be completed.

You will note that the enclosed listings identify questions and difficulties with the proposed changes. As we discussed at the Owners Groups meeting in December 1993, I suggest that we arrange meetings to discuss and resolve these questions. The meetings should be arranged with appropriate technical experts to clarify the purpose and result of the proposed changes, or alternate changes. We request that the Owners Groups propose a schedule by which such meetings could be conducted at the NRC's offices in Rockville. We will coordinate the proposed schedule with the technical staff, and confirm the meeting times and locations. Should you have any question regarding this matter, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "C I Grimes".

Christopher I. Grimes, Chief  
Technical Specifications Branch  
Division of Operating Reactor Support

Enclosures:  
As stated

cc: L. Bush, WOG  
B. Woods, CEOG  
B. Wunderly, BWO  
W. Hall, NUMARC  
D. Hoffman, EXCEL

<<BWR-14>> STS Evaluation Comments

COMMENT	PROPOSED CHANGE		CODE	DISCUSSION
	SECTION	TYPE		
C.1	LCO Bases	A	a	The acceptance criteria for Appendix J testing is not La, but a fraction of La. The threshold for an inoperable containment during operation (after satisfactorily passing the test acceptance criteria) is 1.0 La, not .75 La or .6 La. This change provides a definition of La in the Bases and removes the definition from the SR of the LCO.
C.2				Comment number not used.
C.3	LCO Bases	A	r	The comment proposes to delete a Note, which the staff believes is necessary to ensure an accurate determination of the overall primary containment leakage rate.
C.4	Bases	A	a	The comment references Appendix J as the correct criteria for determining the frequency of PCIV leakage tests in order to avoid confusing the issue with SR 3.0.2.
C.5	LCO	A	a	The comment replaces the 18-month test frequency for the PCIVs with the Appendix J criteria.
C.6	Bases	A	a	The comment deletes wording that may imply that the leakage from hydrostatically tested valves is included in the acceptance criteria of SR 3.6.1.1.1.
C.7	Bases	A	r	The comment involves the deletion of a Note that the commentor believes is redundant. The staff believes the Note ensures an accurate determination of containment leakage.

TYPES: A = Administrative  
 AM = Major Administrative  
 M = More Restrictive - Technical  
 L = Less Restrictive - Technical

CODES: a = Accept  
 o = Open  
 r = Reject

<<BWR-17>> Evaluation Comments

COMMENT	LOCATION	DISCUSSION
C.1	LCO 3.4.5 Condition A	<p>The BWROG proposal to delete the NOTE from the Required Actions of this Condition is not acceptable for the following reasons:</p> <ul style="list-style-type: none"> <li>• Insert B28A appears to address only check valves and to exclude other types of valves; e.g., motor operated, manual, etc.</li> <li>• Contrary to what is stated in justification C.1, Insert B28A does not contain any stipulations regarding check valves meeting SR 3.4.6.1 (3.4.5.1?). In fact, the OG proposal would delete entirely the requirement for valves used to satisfy Required Actions A.1 and A.2 to meet SR 3.4.5.1 without providing any apparent justification.</li> </ul> <p>[NOTE: Even if Insert B28A did contain a stipulation as stated in justification C.1, the Bases are not the place for imposing requirements or "stipulations". Requirements must be stated in the body of the TS, such as in the NOTE proposed for deletion.]</p> <ul style="list-style-type: none"> <li>• The OG proposal would delete the additional requirement that valves used to satisfy Required Actions A.1 and A.2 must be in the reactor coolant pressure boundary, but no justification for the deletion is provided.</li> <li>• The OG justification provided for the proposed change is inadequate. The OG position regarding consistency with other places in the TS does not establish an adequate basis for the change on its own merits, and is totally inadequate when viewed in light of the extensive efforts involved with developing the TS in its present form.</li> </ul>
C.2	SR 3.8.1.9	<p>The proposed additional Note implies that a licensee has the option of using actual loads, or an equivalent KW when paralleled with the grid, for performance of this load rejection test. The proposed Note will be acceptable provided that the actual loads and their equivalent KW are specified in the body of the SR.</p>
	LCO 3.8.1 B3.8-21	<p>See staff comments for proposed changes to SR 3.8.1.9(C.2).</p>

The staff comments are keyed to the page numbering for BWR-4; however, the comments are also applicable to the corresponding proposed changes for BWR-6. The BWR-6 changes also includes a markup to LCO 3.4.6 and Condition A which do not appear in the BWR-4 changes, identified as (BWOG-02); this review does not address those changes.

COMMENT	LOCATION	DISCUSSION
C.3	LCO 3.8.1 B3.8.21	It is not clear from the markup that this change is applicable to SR 3.8.1.9. If it is applicable, the proposed change is not acceptable, including Insert B22A. See staff comments for proposed changes to SR 3.8.1.10(C.3).
	LCO 3.8.1 B3.8-23	See staff comments for proposed changes to SR 3.8.1.10(C.3).
	SR 3.8.1.10	Further explanation of this proposed change is necessary. If ESF voltage is so high that the increase associated with operating the EDG at a power factor of 0.9 or less will cause an overvoltage condition, it would seem that some plant action is required to correct the condition rather than looking for relief in TS. Power factor is an important part of this surveillance. (NOTE: this appears to be more a plant specific item than a generic issue.)
C.4	LCO 3.8.1 B3.8-28	See staff comments for proposed changes to SR 3.8.1.10(C.3).
	SR 3.8.1.10	The Note proposed for addition is not applicable to this SR. Performance of this SR involves establishing a specified load and power factor and then tripping the load by operating appropriate circuit breakers. There is no need to maintain steady state conditions for any significant period of time. Therefore, the proposed Note is not acceptable.
	LCO 3.8.1 B3.8-22	See staff comments for proposed changes to SR 3.8.1.10(C.4).
C.5	LCO 3.8.2 B3.8-36	The proposed change is acceptable.
	LCO 3.8.2 B3.8-38	The proposed changes, including Insert B38A, are confusing. Further discussion with the OG is required.
	LCO 3.8.2	The proposed change is acceptable. However, it is unclear why the change is proposed for paragraph (a) but not for paragraph (c) as well.
	LCO 3.8.2 Action A.1	The proposed change is acceptable.

COMMENT	LOCATION	DISCUSSION
C.6	SR 3.8.2.1	The proposed change is not acceptable. The justification provided is not applicable to the proposed change. SR 3.8.1.8 requires transferring from normal offsite to alternate offsite sources, whereas the justification provides a discussion regarding how many offsite circuits are required.
	LCO 3.8.2 B3.8-40	See staff response for proposed changes to SR 3.8.2.1(C.6).
C.7	LCO 3.8.2 B3.8-40	The staff does not understand the purpose for these proposed bases changes. Further discussion with the OG is required.
	LCO 3.8.1 B3.8-12	The staff does not see the rationale for this change. For the purpose of this Bases discussion, what is the difference between "one" and "any" ?
	SR 3.8.4.3	The proposed change is acceptable.
	LCO 3.8.2 B3.8-37	The proposed change is not acceptable as a generic change. The statement in brackets was included as a means of alerting readers of this section that sequencer OPERABILITY may impact on offsite power OPERABILITY, and not as a statement of fact in all cases. The proposed changes will be acceptable as plant specific changes with removal of the brackets.
	SR 3.8.4.4	The proposed change is acceptable.
	SR 3.8.4.2	The proposed change is acceptable.
	LCO 3.8.2 B3.8-39	The proposed change is acceptable.
C.8	SR 3.8.4.5	The proposed change is not acceptable. See staff response to SR 3.8.4.2(C.8). (NOTE: the brackets around 12 months in the frequently column for SRs 3.8.4.3, 3.8.4.4, and 3.8.4.5 should be removed - 12 months is the interval for this surveillance recommended in IEEE 450)
	SR 3.8.4.2	The proposed change is not acceptable. The staff does not agree with the OG position that resistance measurements proposed for deletion from this SR are not related to battery OPERABILITY.
	LCO 3.8.4 B3.8-54 B3.8-55 Insert B55A	The proposed changes are not acceptable. See staff response for proposed changes to SR 3.8.4.2(C.8).

COMMENT	LOCATION	DISCUSSION
C.9	LCO 3.8.2 B3.8-37	The proposed change is not acceptable. See staff comments for proposed changes to SR 3.8.1.10(C.4).
	LCO 3.8.1 B3.8-4	The proposed change is not acceptable as a generic change. However, if the design of a specific plant is such that an EDG operating in test mode and paralleled with the grid would not isolate from the grid and revert to running standby in the event of a LOOP, the proposed change would be acceptable.
C.10	LCO 3.8.1 B3.8-30	The proposed deletion of Bases material is not acceptable. The text proposed for deletion establishes (1) what is to be demonstrated, and (2) why the demonstration is required. The Bases as proposed by the OG does not fully support SR 3.8.1.18.
C.11	LCO 3.8.1 B3.8-33	The proposed changes are acceptable with the exception of "or 31 days, as applicable". This bases section provides a discussion for the 24 hour and seven day constraints on EDG accelerated testing. Inclusion of the 31 day normal surveillance interval is inappropriate here. This discussion covers Inserts B34A, B34B, and B34C.
C.12	LCO 3.8.3 B3.8-43 Inser B44A	The proposed change is acceptable in concept. However, the specific language is not clear. Further discussion with the OG is required.
	LCO 3.8.5 B3.8-61 Insert B62A	The staff does not understand what is meant by "capable of being met" as stated in Insert B62A. Further discussion with the OG is required.
C.13	LCO 3.8.5 B3.8-60 Insert B61A	The proposed addition to the bases appears to take exception to the requirement for independence of the DC power sources. The reference to LCO 3.8.2 bases involves one offsite source powering more than one ESF bus. This is not, however, the same as crossconnecting DC busses. Absent further justification, the proposed change is not acceptable.

<<BWR-18>> Evaluation Comments

COMMENT	STS PAGE	EVALUATION
C.1		Accepted
C.2	1.1-7	The placement of the sentence at the end of assumption c is inappropriate. Sentence describes an entirely different condition not related to assumption c. This change would also be applicable to the PWR's.
	B 2.0-2	The proposed change does not correspond to what is in SL 2.1.1.1 which states "785 psig <u>or</u> core flow" not "and". Need to provide additional justification for change.
	B 3.3-4	Adding "MODES 1 and 2" to the paragraph is incorrect. Paragraph describes basis for Note (a) in Table 3.3.1.1-1 which is associated with MODE 5, and not with MODES 1 and 2. Preceding paragraph covers the conditions for MODES 1 and 2.
	BWR-6 B 3.3-49	SR 3.3.2.1.5 (pg. 3.3-16) shows a frequency of 184 days not 92 days. This is consistent with other channel calibration SR's in the instrumentation section.
	B 3.4-48	Proposed change to item e does not make sense. Either leave sentence as is or delete phrase "are tensioned."
	B 3.8-87	Change proposed is also applicable to PWRs.
	B 3.8-88	The word "primary" in the change is not applicable to BWR-4's. In addition, the proposed change is also applicable to the PWRs.
	B 3.8-90	The changes proposed for the paragraph beginning with "Notwithstanding"... are also applicable to the PWRs.
	B 3.9-19	The justification provided for C.2 is not adequate for the removal of the phrase "or handling of control rods." This phrase is left in the Applicability Section of the Bases and in the LCO.
	B 3.10-26	The justification provided by C.2 is not adequate for changing "CRD" to "Control Rod."
	BWR-6 B 3.4-43	The deletion of "Low Pressure" from this paragraph is consistent with the wording for the same paragraph in the BWR-4 STS (LCO 3.4.8). However, this paragraph is also in BWR-4 STS LCO 3.4.9 Bases and BWR-6 LCO 3.4.10 Bases with the words "low pressure" in them. Make all paragraph consistent.
C.3 to C.5		Accepted



COMMENT	STS PAGE	EVALUATION
C.6	B 2.0-9	The safety limit is steam dome pressure. The LCO for Post Accident Monitoring (LCO 3.3.3.1) requires a steam dome pressure indicator. The justification implies there are other indicators in the steam dome which measure pressure which are not specified in the instrumentation specifications (Section 3.3). In addition, the justification sentence particularly the concluding phrase does not make sense. Provide a better justification.
C.7 to C.13		Accepted
C.14	B 3.1-25	The original wording in the SR and in the SR Bases does not convey the intent of the proposed change. The original Bases wording has all rods being tested, with no clarification or other wording which indicate that the proposed change is the current intent. The change would be a major relaxation, which would require a more detailed justification than has been provided.
C.17	B 3.2-11	Reference 3 only mentions zircaloy cladding, thus the 1% may not be applicable to other cladding materials. In addition, Section 4.2.1 of the STS only describes zircaloy cladding. Additional justification is needed to show that the 1% plastic strain limit is applicable to all types of cladding material, and if a generic change is being made for LCO 3.2.3 then appropriate changes to Section 4.2.1 should also be made. Rest of change acceptable.
C.18	B 3.3-3 B 3.3-26	The change to the Note in SR 3.3.1.1.2 is acceptable. However, the addition of the words "while operating at $\geq 25\%$ RTP" to the SR is unacceptable. The proposed change would require performance of the SR everytime RTP dropped below 25% then was raised above 25% during the 7 day frequency, which is not the intent of the SR. Without the phrase, the 7 day frequency would govern performance of the SR regardless of how many times the plant dropped below 25% RTP. The explanation of when this type of SR is performed is given in example 1.4-3 in Section 1.4.
C.19 to C.20		Accepted
C.21	B 3.3-5 B 3.3-32	Note 2 in the SR 3.3.1.1.17 change specifies Function 6. Function 6 in Table 3.3.1.1-1 does not require the performance of SR 3.3.1.1.17. The Bases write-up describe the MSIV closure function (Function 5 of Table 3.3.1.1-1). Correct this discrepancy.

COMMENT	STS PAGE	EVALUATION
C.22	B 3.3-10 B 3.3-38 B 3.3-39	The justification for this change states that it's applicable to only one licensee, that would make this change plant specific and should be submitted with the licensee's amendment package. However, if it is applicable to all plants (generic) the removal of the actions and completion time for restoring the SRM's to OPERABLE status is unacceptable, because of the need to monitor the core during refueling.
C.23	B 3.3-12 B 3.3-41	The Bases wording for SR 3.3.1.2.4 implies that the signal to noise ratio is verified when this surveillance is performed. This SR is performed when the unit is in MODES 2,3,4 and 5. Performing this verification during the Channel Function Test means that it is only performed when the plant is in MODE 5 (see Table 3.3.1.2-1) which is unacceptable since entry into MODE 5 is not on a specified frequency.
C.24	B 3.3-16 B 3.3-50	The Topical Report changing the 2 hours to 6 hours entry into Action Statements for instrumentation did not address this particular instrument channel. Change unacceptable.
C.25	B 3.3-38 B 3.3-39 B 3.3-130 B 3.3-131	The intent of the ACTION was to not allow starting of the 8 day limit until both HPCS/HPCI and RCIC are OPERABLE. In addition pages B 3.3-130 and B 3.3-131 are missing from package.
C.26	B 3.3-51 B 3.3-173	The justification for this change states that it is applicable to only the BWR-4 lead plant, that would make this change plant specific and should be submitted with the BWR-4 lead plant amendment package. Is this an industry problem?, rather than a plant specific problem. If it is, provide appropriate justification including what the staff wrote in the lead plant safety evaluation.
C.27 to C.30		Accepted
C.31	Inserts B 3.3-80 B 3.3-81 BWR/4 only	Shouldn't "Thermal Power $\geq$ 40%" be "Thermal Power $\geq$ 30% as is shown on Insert pg. B 3.3-17 and Insert pg. B 3.3-18? Correct discrepancy.
C.32 to C.33		Accepted
C.34	Various pages	The changes proposed are also applicable to PWR's.

COMMENT	STS PAGE	EVALUATION
C.35	Various pages	The changes proposed are also applicable to the PWR's. The changes proposed for Channel Functional Test are applicable to B&W and CE. The changes proposed for Channel Calibration are applicable to all PWR's.
C.36	Various pages	The changes proposed are also applicable to the PWR's.
C.37		Accepted
C.38	B 3.3-25	Staff disagrees with justification for deletion of sentence. The staff determination, found in the Split Report, considers the SRM instrumentation meets Criterion 1 of the Policy Statement. Statement should stay; maybe preceding paragraph should be modified or deleted.
C.39	B 3.3-40	The proposed change does not alleviate or correct the problem. With the new wording, one SRM can still meet all the requirements. Suggest rewording sentence or putting in a clarifying sentence.
C.40	B 3.3-76	This change seems to have applicability also to the PWR's. What defines a continuity check; this needs to be described in Bases and justified. What is different in the BWR's from the PWR's that would necessitate this change. Something similar to this was granted to Crystal River 3, but it was plant specific and part of their original licensing basis, it was not generic.
C.41	B 3.3-129	No, OPERABILITY is the correct word; the more encompassing is what was intended.
C.42 to C.46		Accepted
C.47	3.4.6 3.5-12 B 3.4-14 BWR-4 3.3-5 BWR-4 3.5-6 BWR-4 B 3.5-12 BWR-4 B 3.5-14 BWR-4 B 3.5-15 BWR-6 3.5-6 BWR-6 B 3.5-12 B 3.5-27	The Note in the SR specifies the condition that is needed in order to perform the SR. The proposed change would not specify the exact pressure and minimum flow required by the SR. This would be an open-end condition which is unacceptable, the exact conditions need to be specified as was done in other SR Notes of this type. In addition, the word "dome" was deleted in SR 3.4.3.2 and SR 3.5.1.12 but not in the Bases writeup as in the other SR's & Bases associated with this change. Make changes consistent.

COMMENT	STS PAGE	EVALUATION
C.48 to C.49		Accepted
C.50		Change is acceptable, however, on page 6 justification referenced SR (SR 3.4.3.1) is the wrong SR. SR should be SR 3.4.2.1
C.51	B 3.4-12	The change proposed does not correlate to the justification provided. The justification provided justifies leaving the sentence as is.
C.52		Accepted
C.53	B 3.4-19	The proposed change describes a "2 gpm increase in the previous 24 hours." The LCO and the Bases write-up for this Action statement describe a 2 gpm increase in 4 hours and a 30 gpm total over the previous 24 hours. Where did "2 gpm increase in the previous 24 hours" come from. Justify.
C.54 to C.55		Accepted
C.56	B 3.4-49	The change proposed is also applicable to the PWR's.
C.57	B 3.4-53	The PTLR does not define the methodology. The Topical Reports or other reference approved by the staff describe the methodology used in the PTLR. The references cited in Bases is correct when taken in context with the associated sentence in the Applicable Safety Analysis Section of the Bases. Furthermore, the change is also applicable to the PWRs.
C.58	3.5-1 3.5-11 B 3.5-7 B 3.5-25	Some of the LCOs referenced in the justification do not support the proposed change; however the Required Actions in LCO3.6.3.1 and LCO 3.6.3.2 do support the change in part. The change in Completion Time should not be just "1 hour". It should be "1 hour <u>AND</u> every 12 hours thereafter" to be consistent with the Required Actions in other LCOs of the same nature. (See attached corrections). Bases should be updated as appropriate.

COMMENT	STS PAGE	EVALUATION
C.59	BWR-4 3.5-3 BWR-6 3.5-3	<p>a. BWR-4: The staff agrees with the deletion and associated justification for the following conditions:</p> <ol style="list-style-type: none"> <li>1) "Two or more Low Pressure ECCS Insertion/Spray Subsystems and HPCI System inoperable.</li> <li>2) One or more Low Pressure ECCS Insertion/Spray Subsystems, HPCI System and one or more ADS valves inoperable."</li> </ol> <p>We don't agree with the deletion of the condition-- "One or more Low Pressure ECCS Injection/Spray Subsystems and two or more ADS valves inoperable. The "or more" portion of the Low Pressure ECCS Subsystem would make this condition a subset the first condition in Condition H - "Two or more Low Pressure ECCS Injection/Spray Subsystem inoperable", but the condition "one Low Pressure ECCS Injection/Spray Subsystem and two or more ADS valves inoperable" is not a subset of any of the existing or proposed remaining conditions. The staff suggests retaining this condition, but delete the "or more" as shown on attached pg. 3.5-3 (BWR-4).</p> <p>b. BWR-6: The staff disagrees with the deletion proposed. The deleted condition is not a subset of any of the other conditions in Condition H except when more than one ECCS Injection/Spray System is inoperable. The staff suggests deleting the "or more" as shown on the attached BWR-6 pg. 3.5-3.</p>
C.60 to C.65		Accepted
C.64	B 3.8-23	The change proposed is also applicable to the PWR's.
C.65		Accepted
C.66	B 3.8-87	The change proposed is also applicable to the PWR's.
C.67		Accepted
C.58		Change is acceptable, however, on page 8 the justification LCO's referenced are incorrect. LCO's should be LCO 3.4.8, 3.4.7, 3.9.8, and 3.9.9.
C.69		Accepted
C.70	B 3.9-2	Just because an item cannot be substantiated or is not a licensing basis in the lead plant design is not sufficient justification for generic change or deletion. This would be a plant specific item which should be submitted as part of the lead plant amendment.

COMMENT	STS PAGE	EVALUATION
C.71 to C.73		Accepted
C.74	B 3.9-17	This type of paragraph (format) is used in other sections of the Bases in particular Applicability Section of LCO 3.1.3, thus the justification provide is incorrect.
C.75		Accepted
C.76	B 3.9-20	The proposed change would be acceptable on a plant specific basis if and only if the licensee was also using LCO 3.9.7. The Reviewer's Note at the end of the section covers this condition. The wording should be left as is to conform to the Reviewer's Note.
C.77		Accepted
C.78	3.10-13	The proposed change to LCO 3.10.5.b is unacceptable. The proposed change would allow the "all other control rods" in the five by five array to be disarmed after the withdrawn control rod is removed. The original statement would only allow this to be done prior to control rod removal or withdrawal. Requirement should be left as is.
C.79		Accepted
C.80		Change is acceptable, however, on page 9 the justification TS referenced is incorrect. Correct TS is TS 3.1.3.5.

COMMENT	STS PAGE	EVALUATION
C.81	3.10-20 B 3.10-34	<p>a. The proposed change is patterned after LCO 3.1.3 Condition C, which applies to all other control rod inoperabilities except for a stuck control rod which has different Required Actions. The proposed change only specifies one inoperable condition for control rods that is a control rod not coupled to its CRD. What happened to all of the other control rod inoperabilities covered by LCO 3.1.3 Condition C? Wouldn't they also be applicable in LCO 3.10.8 as well, and should they be covered. Would the proposed Required Actions apply to them in this condition or is a scram (existing Condition A) applicable. The justification needs to address this subject.</p> <p>b. From this justification provided and the proposed Bases change, it seems that the concern is not a control rod uncoupled from its CRD, but a stuck control rod. The staff agrees that scrambling the reactor in this condition (stuck control rod) could cause damage such as that described in the Bases for LCO 3.1.3 Conditions A and B. However, if this is the concern why shouldn't the proposed Required Actions be similar to or exactly like the Required Actions of LCO 3.1.3 Condition A and/or B, rather than use an action patterned after LCO 3.1.3 Condition C which has nothing to do with stuck control rods.</p>
C.82 to C.84		Accepted

COMMENT	STS PAGE	EVALUATION
C.?		<p>The following pages have changes which do not have a comment number and/or justification associated with the change:</p> <ul style="list-style-type: none"> <li>a. BWR-4 pg. B3.0-11</li> <li>b. BWR-4 pg. 3.3-51: Proposed change that deletes "primary containment" from Condition B and Required Action B.1.</li> <li>c. BWR-4 pg. B 3.3-52: The proposed changes associated with SR 3.3.2.1.7.</li> <li>d. BWR-4 pg. B 3.4-40: <ul style="list-style-type: none"> <li>1) The proposed change to delete "the" and add "1" after LCO Note in Actions B.1, B.2, and B.3.</li> <li>2) The deletion of "and pressure" in Actions B.1, B.2 and B.3 is not justified. The LCO 3.4.8 Required Action B.3 requires the pressure to be monitored.</li> </ul> </li> <li>e. BWR-6 pg. B 3.4-45: Same as d. above.</li> <li>f. BWR-6 pg. B 3.5-5: The addition of "and" in the Applicability Section.</li> <li>g. BWR-6 pg. 3.3-48: Same as b. above.</li> </ul>



3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS) AND REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM

3.5.1 ECCS—Operating

LCO 3.5.1 Each ECCS injection/spray subsystem and the Automatic Depressurization System (ADS) function of [seven] safety/relief valves shall be OPERABLE.

APPLICABILITY: MODE 1, MODES 2 and 3, except high pressure coolant injection (HPCI) and ADS valves are not required to be OPERABLE with reactor steam dome pressure  $\leq$  [150] psig.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One low pressure ECCS injection/spray subsystem inoperable.	A.1 Restore low pressure ECCS injection/spray subsystem to OPERABLE status.	7 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Be in MODE 3.	12 hours
	<u>AND</u> B.2 Be in MODE 4.	36 hours
C. HPCI System inoperable.	C.1 Verify by administrative means RCIC System is OPERABLE.	Immediately 1 HOUR <u>AND</u> EVERY 12 HOURS THEREAFTER
	<u>AND</u> C.2 Restore HPCI System to OPERABLE status.	14 days

(continued)

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS) AND REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM

3.5.3 RCIC System

LCO 3.5.3 The RCIC System shall be OPERABLE.

APPLICABILITY: MODE 1,  
MODES 2 and 3 with reactor steam dome pressure > [150] psig.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. RCIC System inoperable.	A.1 Verify by administrative means High Pressure Coolant Injection System is OPERABLE.	<del>Immediately</del> 1 HOUR AND EXCEPT 12 HOURS THAT AFTER
	AND A.2 Restore RCIC System to OPERABLE status.	14 days
B. Required Action and associated Completion Time not met.	B.1 Is in MODE 3.	12 hours
	AND B.2 Reduce reactor steam dome pressure to $\leq$ [150] psig.	36 hours

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS) AND REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM

3.5.1 ECCS—Operating

LCO 3.5.1 Each ECCS injection/spray subsystem and the Automatic Depressurization System (ADS) function of [eight] safety/relief valves shall be OPERABLE.

APPLICABILITY: MODE 1, MODES 2 and 3, except ADS valves are not required to be OPERABLE with reactor steam dome pressure  $\leq$  [150] psig.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One low pressure ECCS injection/spray subsystem inoperable.	A.1 Restore low pressure ECCS injection/spray subsystem to OPERABLE status.	7 days
B. High Pressure Core Spray (HPCS) System inoperable.	B.1 Verify by administrative means RCIC System is OPERABLE when RCIC is required to be OPERABLE.	<del>Immediately</del> 1 Hour <u>AND</u> EVERY 12 HOURS THEREAFTER
	<u>AND</u> B.2 Restore HPCS System to OPERABLE status.	14 days

(continued)

AIRC Proposed C. SB CHANGE.

RCIC System  
3.5.3

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS) AND REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM

3.5.3 RCIC System

LCO 3.5.3 The RCIC System shall be OPERABLE.

APPLICABILITY: MODE 1,  
MODES 2 and 3 with reactor steam dome pressure > [150] psig.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. RCIC System inoperable.	A.1 Verify by administrative means High Pressure Core Spray System is OPERABLE.	<del>Immediately</del> 1 HOUR <u>AND</u> EVERY 12 HOURS THEREAFTER
	<u>AND</u> A.2 Restore RCIC System to OPERABLE status.	14 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	12 hours
	<u>AND</u> B.2 Reduce reactor steam dome pressure to ≤ [150] psig.	36 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>H. Two or more low pressure ECCS injection/spray subsystems inoperable.</p> <p><u>OR</u></p> <p>One <del>or more</del> low pressure ECCS injection/spray subsystems and two or more ADS valves inoperable.</p> <p><u>OR</u></p> <p>HPCI System and one or more ADS valves inoperable.</p> <p><del><u>OR</u></del></p> <p><del>Two or more low pressure ECCS injection/spray subsystems and HPCI System inoperable.</del></p> <p><del><u>OR</u></del></p> <p><del>One or more low pressure ECCS injection/spray subsystems, HPCI System, and one or more ADS valves inoperable.</del></p>	<p>H.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

NRC Proposed C. 5<sup>th</sup> CHANGE.

ECCS—Operating  
3.5.1

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>G. (continued)</p> <p>Required Action and associated Completion Time of Condition E or F not met.</p>	<p>G.2 Reduce reactor steam dome pressure to <math>\leq</math> [150] psig.</p>	<p>36 hours</p>
<p>H. HPCS and low pressure core spray (LPCS) inoperable.</p> <p><u>OR</u></p> <p>Three or more ECCS injection/spray subsystems inoperable.</p> <p><u>OR</u></p> <p>One <del>or more</del> ECCS injection/spray subsystems and two or more ADS valves inoperable.</p> <p><u>OR</u></p> <p>HPCS System and one or more ADS valves inoperable.</p> <p><u>OR</u></p> <p>Two or more ECCS injection/spray subsystems and one or more ADS valves inoperable.</p>	<p>H.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

<<BWR-20>> Evaluation Comments

COMMENT	PROPOSED CHANGE		CODE	DISCUSSION
	SECTION	TYPE		
C.1	Bases	A	a	
C.2	Bases		o	The Bases state that the Level-8 scram function is directly assumed in the analysis of feedwater controller failure, maximum demand in Ref. 4. The BWROG needs to confirm this analysis is not applicable below 25% RTP.
C.3	LCO	AM	a	Change "insert control rods" to "fully insert control rods."
C.4	LCO	A	a	Rod Block inequalities are now inclusive of the upper and lower boundry limits. Proposed changes are consistent with NUREG-1434 Table 3.3.2.1-1.
C.5	LCO/ Bases	AM	o	Revise justification. Describe the intent of the channel calibration. Delete references to the channel functional test and discuss the test fequency of the setpoint verification and bypass surveillance testing.
C.6	LCO	L	r	As applied to the HPCS system, the proposed change is not acceptable. There is no discussion to support this industry position to change the specified applicable conditions for the condensate storage level low in modes 4 and 5 from the current requirement of whenever the HPCS is required to be operable to the proposed specified condition of whenever the CST is credited for operablitiy of the HPCS. As discussed below (C.15), the CST level low function is credited for HPCS and therefore it is required to be operable at all times when HPCS is required per LCO 3.5.2.
C.7	LCO	M	a	
C.8	LCO 3.8.3	AM	a	
C.8	Bases B3.8-6	L	r	The proposed change is not acceptable. The existing wording explains the difference between Condition A wherein a single offsite power circuit failure impacts on more than one Division, and Condition C which addresses two offsite circuits inoperable. The proposed change adds confusion rather than clarity.

TYPES: A = Administrative  
 AM = Major Administrative  
 M = More Restrictive - Technical  
 L = Less Restrictive - Technical

CODES: a = Accept  
 o = Open  
 r = Reject

COMMENT	PROPOSED CHANGE		CODE	DISCUSSION
	SECTION	TYPE		
C.8	Bases B3.8-8 B3.8-11 B3.8-21	A	a	The proposed changes to Required Actions B.1 and B.2 are acceptable.
C.9	Bases	M	a	
C.10	Bases	A	a	
C.11	Bases	A	a	
C.12	Bases B3.8-6 B3.8-18	AM	o	Bases page B 3.3-46 need citation from Ref. 6 confirming change, as appropriate. The changes are otherwise acceptable.
C.13	Bases	A	a	
C.14	Bases	AM	a	
C.15	LCO/ Bases	L	r	Proposed changes to HPCS SWS from "When HPCS required" to "MODES 1,2,3" removes SWS operability requirements when the HPCS is required for ECCS-Shutdown.
C.16	LCO 3.8.2	AM L	o r	<p>The proposed reorganization of the paragraph is acceptable. However, the proposed addition (capable of supplying) is confusing. It appears to add a significant potential for misinterpretation without apparent benefit. Why is OPERABLE not adequate in this instance.</p> <p><u>Condition A</u> - The proposed change is not acceptable. The intent of this Condition is clear. Failure of any offsite source, whether it is powering the Division 1 and 2 busses or the Division 3 bus, results in this Condition and applicability of associated Required Actions.</p> <p><u>Condition B</u> - The proposed change is acceptable in concept. However, since related changes to Conditions A and C are not acceptable, the existing wording should be retained for consistency.</p> <p><u>Condition C</u> - The proposed change is not acceptable. This Condition deals only with the Division 3 EDG. The offsite power circuit is covered by Condition A. The proposed change would modify the intent of this Condition.</p>

TYPES: A = Administrative  
AM = Major Administrative  
M = More Restrictive - Technical  
L = Less Restrictive - Technical

CODES: a = Accept  
o = Open  
r = Reject



COMMENT	PROPOSED CHANGE		CODE	DISCUSSION
	SECTION	TYPE		
C.16	Bases B3.8-37	L	r	Insert B37A is not acceptable. The intent of the specification is that the Division 3 onsite electrical power distribution subsystem be connected to the required second offsite circuit and not to have that circuit "available" for connection. The Bases changes are not acceptable because the LCO change is unacceptable.
	Bases B3.8-40			
C.17	Bases B3.8-1	AM	o	The justification is correct in that some wording is repeated in a subsequent Bases paragraph. However, this apparent repetition should be changed to refer to prevention of overloading the EDGs instead of the offsite power transformer. With this change, the repetition is eliminated and the proposed deletion retained.
C.18	Bases B3.8-8 B3.8-11	AM	o	The proposed changes to Required Actions B.1 and B.2 are acceptable.
C.19	Bases	AM	o	Insert B 6A not included in package. The Bases markup proposes changing the number of required channels from one to two channels without making LCO changes. Redundant channels ensure that a single failure will not result in the loss of the refueling interlock function. This function is assumed to be operable by the safety analysis. C.19 states that the changes provide more precise description of the RC&IS logic associated with refueling interlocks. The justification does not support the proposed changes.

TYPES: A = Administrative  
AM = Major Administrative  
M = More Restrictive - Technical  
L = Less Restrictive - Technical

CODES: a = Accept  
o = Open  
r = Reject