



Fort Calhoun Station
P.O. Box 550,
Fort Calhoun, NE 68023

August 28, 2009
LIC-09-0068

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

- References:
1. Docket No. 50-285
 2. Letter from OPPD (R. P. Clemens) to NRC (Document Control Desk), "Fort Calhoun Station (FCS) Unit No. 1 License Amendment Request (LAR) 09-01, Steam Generator Blowdown Isolation Operability and Testing Requirements," dated January 30, 2009 (LIC-09-0004) (ML090340536)
 3. Email from NRC (L. E. Wilkins) to OPPD (B. R. Hansher), "RAIs (Request for Additional Information) for LAR 09-01, Steam Generator Blowdown Isolation Operability and Testing Requirements," dated April 9, 2009 (ML091680589)
 4. Letter from OPPD (R. P. Clemens) to NRC (Document Control Desk), "Response to Request for Additional Information Concerning License Amendment Request (LAR) 09-01, Steam Generator Blowdown Isolation Operability and Testing Requirements," dated June 30, 2009 (LIC-09-0043) (ML091830041)

SUBJECT: Revision to License Amendment Request (LAR) 09-01, "Steam Generator Blowdown Isolation Operability and Testing Requirements"

In Reference 2, the Omaha Public Power District (OPPD) requested a change to Fort Calhoun Station (FCS), Unit No. 1, Renewed Operating License No. DPR-40, to add operability and surveillance testing requirements to the FCS Technical Specifications (TS) for the steam generator (SG) blowdown isolation on a reactor trip. The NRC staff reviewed the proposed change and in Reference 3, transmitted a request for additional information (RAI).

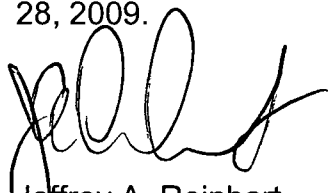
OPPD responded in Reference 4 by providing a discussion as to why TS 2.15(1) through 2.15(4) do not apply and explained that the proposed footnotes provide specific guidance for component inoperability. As stated on page 6 of Reference 4, the operability of the *initiation* portion of the blowdown isolation function is addressed by TS 2.15, Table 2-2. The proposed revision adds TS for the *actuation* portion of the blowdown isolation function; TS 2.15(1) through 2.15(4) apply to *initiating* channels. In a teleconference on August 13, 2009, the NRC expressed a concern about the proposed wording of the footnotes.

Specifically, proposed footnote (h) which provides information on the logic subsystem is designated as associated with TS 2.15, Table 2-4, Item 4B, *Reactor Trip*, which is the automatic portion of the actuation circuit, but was not designated as associated with TS 2.15, Table 2-4, Item 4A, which is the manual portion of the actuation circuit. Additionally, since TS 2.15, Table 2-4, footnotes (i) and (j) do not state that TS 2.15(1) through 2.15(4) do not apply, in some situations it could be concluded that both the TS 2.15 guidance and the footnotes would apply and contain different actions for the same condition. Therefore, for clarification, footnote (h) is revised to apply to the manual actuation train in addition to the automatic actuation train, and footnotes (i) and (j) are revised to specifically state that TS 2.15(1) through 2.15(4) do not apply.

OPPD has reviewed and approved the changes requested by the NRC and they are incorporated in the attached markup and clean pages. The attached pages supersede the corresponding pages provided with Reference 2. As the changes are considered a minor clarification, the conclusion of the evaluation provided by Reference 2 that the changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), remains valid.

No regulatory commitments are made in this letter. If you should have any questions regarding this submittal or require additional information, please contact Mr. Bill R. Hansher at (402) 533-6894.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 28, 2009.



Jeffrey A. Reinhart
Site Vice President

JAR/BRH/dll

Attachments: 1. Technical Specification Page Markups
2. Retyped ("Clean") Technical Specifications

c: E. E. Collins, NRC Regional Administrator, Region IV
A. B. Wang, NRC Project Manager
J. C. Kirkland, NRC Senior Resident Inspector
Director of Consumer Health Services, Department of Regulation and
Licensure, Nebraska Health and Human Services, State of Nebraska

Technical Specification Page Markups

TABLE 2-4

Instrument Operating Conditions for Isolation Functions

No.	Functional Unit	Minimum Operable Channels	Minimum Degree of Redundancy	Permissible Bypass Condition	Test, Maintenance and Inoperable Bypass
1	<u>Containment Isolation</u>				
A	Manual	1	None	None	N/A
B	Containment High Pressure Logic Subsystem A	2 ^{(a)(e)(g)}	1	During Leak Test	(f)
	Logic Subsystem B	2 ^{(a)(e)(g)}	1		
C	Pressurizer Low/Low Pressure Logic Subsystem A	2 ^{(a)(e)(g)}	1	Reactor Coolant Pressure Less Than 1700 psia ^(b)	(f)
	Logic Subsystem B	2 ^{(a)(e)(g)}	1		
2	<u>Steam Generator Isolation</u>				
A	Manual	1	None	None	N/A
B	Steam Generator Isolation	1	None	None	N/A
	(i) Steam Generator Low Pressure Logic Subsystem A	2/Steam Gen ^{(a)(e)(g)}	1/Steam Gen	Steam Generator Pressure Less Than 600 psia ^(c)	(f)
	Logic Subsystem B	2/Steam Gen ^{(a)(e)(g)}	1/Steam Gen		
	(ii) Containment High Pressure Logic Subsystem A	2 ^{(a)(e)(g)}	1	During Leak Test	(f)
	Logic Subsystem B	2 ^{(a)(e)(g)}	1		
3	<u>Ventilation Isolation</u>				
A	Manual	1	None	None	N/A
B	Containment High Radiation Logic Subsystem A	1 ^{(d)(g)}	None	If Containment Relief and Purge Valves are Closed	(f)
	Logic Subsystem B	1 ^{(d)(g)}	None		
4	<u>Steam Generator Blowdown Isolation</u>				
A	Manual	1 ^(h)	None	Operating Modes 3, 4, & 5	N/A
B	Reactor Trip Trains A and B	2 ^{(h)(i)}	None	Operating Modes 3, 4, & 5 OR if at least one valve for each steam generator is closed	(i)

TECHNICAL SPECIFICATIONS

TABLE 2-4
(Continued)

- a Circuits on ESF Logic Subsystems A and B each have 4 channels.
- b Auto removal of bypass prior to exceeding 1700 psia.
- c Auto removal of bypass prior to exceeding 600 psia.
- d A and B trains are both actuated by either the Containment or Auxiliary Building Exhaust Stack initiating channels. The number of installed channels for Containment Radiation High Signal is two for purposes of Specification 2.15(1).
- e If minimum operable channel conditions are reached, one inoperable channel must be placed in the tripped condition within eight hours from the time of discovery of loss of operability. Specification 2.15(2) is applicable.
- f If one channel becomes inoperable, that channel must be placed in the tripped or bypassed condition within eight hours from the time of discovery of loss of operability. Specification 2.15(1) is applicable.
- g Specification 2.15(3) is applicable. If ESF Logic Subsystems A and B are inoperable, enter Specification 2.0.1.

h "Minimum Operable Channels" for steam generator blowdown isolation refers to the minimum number of trains (logic subsystems) which are required to be operable to provide manual or automatic SG blowdown isolation.

If both trains become inoperable, power operation may continue provided at least one SG blowdown isolation valve for each steam generator is closed OR be in MODE 2 within 6 hours, and in MODE 3 in the next 6 hours. Specifications 2.15(1), (2), (3) and (4) are not applicable. TS LCO 2.0.1 is not applicable.

If one train becomes inoperable, that train may be placed in the bypassed condition. If the train is not returned to OPERABLE status within 24 hours from time of discovery of loss of operability, operation may continue as long as one SG blowdown isolation valve to each steam generator is closed. If the train is not returned to OPERABLE status within 24 hours from time of discovery, with blowdown not isolated to both SGs, be in MODE 2 within 6 hours, and in MODE 3 in the next 6 hours. Specifications 2.15(1), (2), (3) and (4) are not applicable. TS LCO 2.0.1 is not applicable.

Retyped ("Clean") Technical Specifications

TABLE 2-4

Instrument Operating Conditions for Isolation Functions

<u>No.</u>	<u>Functional Unit</u>	<u>Minimum Operable Channels</u>	<u>Minimum Degree of Redundancy</u>	<u>Permissible Bypass Condition</u>	<u>Test, Maintenance and Inoperable Bypass</u>
1	<u>Containment Isolation</u>				
A	Manual	1	None	None	N/A
B	Containment High Pressure				
	Logic Subsystem A	2 ^{(a)(e)(g)}	1	During Leak Test	(f)
	Logic Subsystem B	2 ^{(a)(e)(g)}	1		
C	Pressurizer Low/Low Pressure				
	Logic Subsystem A	2 ^{(a)(e)(g)}	1	Reactor Coolant Pressure Less Than 1700 psia ^(b)	(f)
	Logic Subsystem B	2 ^{(a)(e)(g)}	1		
2	<u>Steam Generator Isolation</u>				
A	Manual	1	None	None	N/A
B	Steam Generator Isolation	1	None	None	N/A
	(i) Steam Generator Low Pressure				
	Logic Subsystem A	2/Steam Gen ^{(a)(e)(g)}	1/Steam Gen	Steam Generator Pressure Less Than 600 psia ^(c)	(f)
	Logic Subsystem B	2/Steam Gen ^{(a)(e)(g)}	1/Steam Gen		
	(ii) Containment High Pressure				
	Logic Subsystem A	2 ^{(a)(e)(g)}	1	During Leak Test	(f)
	Logic Subsystem B	2 ^{(a)(e)(g)}	1		
3	<u>Ventilation Isolation</u>				
A	Manual	1	None	None	N/A
B	Containment High Radiation				
	Logic Subsystem A	1 ^{(d)(g)}	None	If Containment Relief and Purge Valves are Closed	(f)
	Logic Subsystem B	1 ^{(d)(g)}	None		
4	<u>Steam Generator Blowdown Isolation</u>				
A	Manual	1 ^(h)	None	Operating Modes 3, 4, & 5	N/A
B	Reactor Trip Trains A and B	2 ^{(h)(i)}	None	Operating Modes 3, 4, & 5 OR if at least one valve for each steam generator is closed	(j)

TECHNICAL SPECIFICATIONS

TABLE 2-4
(Continued)

- a Circuits on ESF Logic Subsystems A and B each have 4 channels.
- b Auto removal of bypass prior to exceeding 1700 psia.
- c Auto removal of bypass prior to exceeding 600 psia.
- d A and B trains are both actuated by either the Containment or Auxiliary Building Exhaust Stack initiating channels. The number of installed channels for Containment Radiation High Signal is two for purposes of Specification 2.15(1).
- e If minimum operable channel conditions are reached, one inoperable channel must be placed in the tripped condition within eight hours from the time of discovery of loss of operability. Specification 2.15(2) is applicable.
- f If one channel becomes inoperable, that channel must be placed in the tripped or bypassed condition within eight hours from the time of discovery of loss of operability. Specification 2.15(1) is applicable.
- g Specification 2.15(3) is applicable. If ESF Logic Subsystems A and B are inoperable, enter Specification 2.0.1.
- h "Minimum Operable Channels" for steam generator blowdown isolation refers to the minimum number of trains (logic subsystems) which are required to be operable to provide manual or automatic SG blowdown isolation.
- i If both trains become inoperable, power operation may continue provided at least one SG blowdown isolation valve for each steam generator is closed OR be in MODE 2 within 6 hours, and in MODE 3 in the next 6 hours. Specifications 2.15(1), (2), (3) and (4) are not applicable; TS LCO 2.0.1 is not applicable.
- j If one train becomes inoperable, that train may be placed in the bypassed condition. If the train is not returned to OPERABLE status within 24 hours from time of discovery of loss of operability, operation may continue as long as one SG blowdown isolation valve to each steam generator is closed. If the train is not returned to OPERABLE status within 24 hours from time of discovery, with blowdown not isolated to both SGs, be in MODE 2 within 6 hours, and in MODE 3 in the next 6 hours. Specifications 2.15(1), (2), (3) and (4) are not applicable; TS LCO 2.0.1 is not applicable.