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December 4, 2006

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Subject: Duke Power Company LLC
d/b/a Duke Energy Carolinas, LLC
Oconee Nuclear Station
Docket 50-269, -270, -287
Selected Licensee Commitments Manual (SLC)

Gentlemen:

Pursuant to 10CFR 50.4 and 50.71, please find attached 7 copies of the latest revisions to the Oconee Selected Licensee Commitments Manual (SLC). SLC Change 2006-15 provides appropriate controls for automatic isolation valves C-903, 904, 906, or 907 and bypass valve C-912 that were installed on Unit 1 during 1EOC23. These changes are enhancements to provide operators with the appropriate action to be taken should one of the automatic valves become inoperable or should the bypass valve need to be open.

Very truly yours,

Bruce Hamilton

B. H. Hamilton
Vice President
Oconee Nuclear Station

RGJ/rgj
Attachment

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Attachment #1

Proposed SLC revisions

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16.10 STEAM AND POWER CONVERSION SYSTEMS

16.10.8 Upper Surge Tank (UST) Riser Branch Line Automatic Isolation Valves

COMMITMENT

a. Automatic Isolation Valves 1, 2, 3C-903 and 904 shall be operable to close and Bypass Valve 1, 2, 3C-912 shall be closed in flow path to condenser hotwell.

b. Automatic Isolation Valves 1, 2, 3C-906 and 907 shall be operable to close in flow path to Powdex backwash pumps.

----------NOTE----------
Applicable only to units with the UST Inventory Protection modification installed.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
----------NOTE---------- Separate condition entry allowed for automatic valves in each flow path ----------	A.1 ----------NOTE---------- Only applicable in MODES 1, 2, and 3. ----------	
A. One of the two required automatic isolation valves inoperable in a flow path	Enter Condition B and Required Actions for TS 3.7.5.	Immediately
	AND	
	A.2 ----------NOTE---------- Exit Condition B of TS 3.7.5 upon completion of Required Action. ----------	
	Isolate the affected flow path.	72 hrs

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Two of the two required automatic isolation valves inoperable in a flow path	B.1 Enter Condition E and Required Actions for TS 3.7.5. AND B.2 ----------NOTE---------- Exit Condition E of TS 3.7.5 upon completion of Required Action. ---------- Isolate the affected flow path.	Immediately Immediately
C. ----------NOTE---------- Condition may be entered only after the following actions are taken: 1) Maximize UST level, 2) Place a dedicated operator in constant communication with the Control Room in the vicinity of C-912 3) Isolate flow path containing C-176 and C-187 ---------- Bypass valve C-912 open	C.1 Enter Condition B and Required Actions for TS 3.7.5. AND C.2 IF UST Level < 7.5 feet THEN Close C-912 AND C.3 ----------NOTE---------- Exit Condition B of TS 3.7.5 upon completion of Required Action. ---------- Close bypass valve C-912.	Immediately Immediately 72 hrs

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 16.10.8.1	Verify that valves C-903, 904, 906, 907 stroke closed within the allowed time on an actual or simulated actuation signal.	In accordance with IST Program

BASES

BACKGROUND

The Emergency Feedwater (EFW) pumps obtain their initial inventory of water from the Upper Surge Tanks (UST). The volume of water is also used for various other normal plant functions such as hotwell make-up and the backwashing of condensate polishing demineralizers. Technical Specification (TS) 3.7.6 requires a minimum of 30,000 gallons of condensate in the UST. This volume allows sufficient time for operators to swap over to the hotwell (Reference 8). If UST level begins to drop, all other plant loads need to be isolated in order to preserve this minimum volume of condensate such that it can be dedicated for EFW use. Once actuation level is reached, valves C-903 and 904 close to isolate most of these loads and C-906 and 907 close to isolate flow to the Powdex Backwash pumps. Bypass valve C-912 is provided to bypass C-903 and 904 in order to allow normal hotwell level control at any time valve C-903 or 904 are closed. This SLC is applicable only to units with the UST Inventory Protection modification installed.

APPLICABLE SAFETY ANALYSIS

Existing safety analyses for the EFW system assume that the 30,000 gallons of condensate are available from the UST for initial use by the EFW pumps. There are two main flow paths that branch off of the hotwell to UST riser that require closure. These are the C-903 and 904 flow path and the C-906 and 907 flow path. Valves C-903 and 904 are required to be OPERABLE to close when flow is aligned through this flow path. This flow path can also be bypassed by manual valve C-912, which effectively defeats the safety function provided by C-903 and 904. Valves C-906 and 907 are required to be OPERABLE to close when flow is aligned through this flow path. This flow path may be isolated by manual valves with minimal impact on normal plant operations.

Failure of one of the two automatic isolation valves does not defeat the safety function, but only reduces it to not being single failure proof. Test Acceptance Criteria provide acceptable closure times. If the flow path is manually isolated the function is OPERABLE. Operability of the valves requires the UST level instrumentation and associated controls needed to close valves C-903, 904, 906, and 907 to be OPERABLE.

APPLICABILITY

This SLC applies when any unit is in MODES 1, 2, 3, and MODE 4 when steam generators are relied upon for heat removal. This applicability is consistent with the EFW system operability requirement in Technical Specification 3.7.5, "Emergency Feedwater (EFW) System." Since valves C-903, 904, 906, and 907 support EFW operability, this SLC is applicable when any unit is in the MODE of Applicability.

ACTIONS

A.1 and A.2

If one of the two required automatic valves in either flow path (C-903/904 flow path or the C-906/907 flow path) is inoperable, that valve must be restored to OPERABLE status. Isolating the affected flow path removes the single failure vulnerability of the EFW flow path. If it is not isolated, only the redundant valve is available to automatically isolate flow diverted from the EFW flow path. This condition is equivalent to a loss of redundancy in the EFW system. Therefore, Required Action (RA) A.1 directs entry into TS 3.7.5 Condition B for a loss of an EFW flow path. RA A.1 is modified by a note indicating that it is only applicable in MODES 1, 2, and 3. There is no equivalent condition in TS 3.7.5. TS 3.7.5 does not require redundant flow paths to be OPERABLE in MODE 4 when SGs are relied upon for heat removal. TS LCO 3.7.5 only requires one motor driven emergency feedwater (MDEFW) pump and one EFW flow path are required to be OPERABLE in MODE 4. RA A.2 requires the flow path be isolated within 72 hours. This completion time is consistent with the loss of redundancy addressed by TS 3.7.5 Condition B. Closure of the inoperable valve restores the safety function; therefore, TS 3.7.5 Condition B can be exited. RA A.2 is modified by a note clarifying that the Unit(s) exit TS 3.7.5 Condition B when the RA is completed. The Condition is modified by a Note indicating that separate condition entry can be made for either flow path (C-903/904 flow path or the C-906/907 flow path). This means a separate Completion Time applies to each flow path.

B.1 and B.2

If both valves in either the C-903/904 flow path or the C-906/907 flow path become INOPERABLE, RA B.1 directs entry into TS 3.7.5 Condition E. RA B.2 requires the affected flow path for these valves to be isolated immediately. The immediate Completion Time is equivalent to the Completion Time of RA E.1 of TS 3.7.5. RA B.2 is modified by a note clarifying that the Unit(s) exit TS 3.7.5 Condition E when the RA is completed. Isolating the affected path restores the EFW flow path by isolating these branch lines from the flow path, thus protecting the UST inventory. Prior to isolating the flow path, the inability of the valves to close poses a risk to EFW operations. If the control system for C-192, 176, and 187 fails such that the large valves go full open prior to isolating the flow path and EFW actuates, the UST could be depleted before swap over to the hotwell. This could lead to EFW pump damage.

C.1, C.2, and C.3

With bypass valve C-912 open it must be closed within 72 hours. The Note to the Condition indicates that it may only be entered after the following actions are taken:

1) Maximize UST level,
2) Place a dedicated operator in constant communication with the Control Room in the vicinity of C-912, and
3) Isolate the flow path containing C-176 and C-187.

RA C.1 directs entry into Condition B of TS 3.7.5 since opening this valve eliminates the single failure protection provided by automatic valves C-903 or 904. This valve is normally closed and would only be opened temporarily to allow continued unit operation. This allowance is addressed in Reference 9, which states that it is acceptable to open normally closed manual seismic boundary valves provided the opening and closing of these valves is controlled by approved plant procedures and the valve will be opened for a required operating evolution with a clearly definable beginning and end time. Thus, procedures are required to control this evolution. RA C.2 requires that C-912 be closed immediately if the UST level drops below 7.5 feet to protect the inventory immediately available for EFW. RA C.3 requires C-912 be closed

within 72 hours. This completion time is consistent with the loss of redundancy addressed by TS 3.7.5 Condition B. This valve is allowed to remain open for up to 72 hours to allow continued unit operation should maintenance or testing of C-903 or 904 be required and is justified by the prerequisites for entry into the condition and the requirement to close the valve should UST level drop below 7.5 feet. RA C.3 is modified by a note clarifying that the Unit(s) exit TS 3.7.5 Condition B when the RA is completed. If C-912 were to remain closed, hotwell inventory would reduce and condensate inventory could eventually be reduced (due to CST overflow to the Turbine Building Sump). The requirement to maximize level in the UST before entering the Condition increases the amount of time that the UST would be available as the EFW suction source before swap over to the hotwell is required. The requirement to dedicate an operator, who is in continuous communication with the control room, and is located in the vicinity of C-912, ensures the valve can be closed expeditiously if required. Isolating the flow path containing C-176 and C-187, which are large flow paths, prevents control system failures associated with those valves from consuming UST water rapidly and increases the time available for a dedicated operator in the vicinity of C-912 to close either C-912 or C-902.

SURVEILLANCE REQUIREMENTS

SR 16.10.8.1

Valves C-903, 904, 906, and 907 are active valves that are required to close automatically on low UST level. Since they are active valves, they are included in the In-Service Testing program. Their frequency will be determined by the IST program.

REFERENCES

1. OSC-7802 – "Mechanical Design Inputs for NSM ON-x3098"
2. OSC-8478 – "Electrical Design Inputs for NSM ON-x3098"
3. ONTC-0-121A-0001-001 – Test Acceptance Criteria for 1, 2, 3C-903, 904, 906, 907 Stroke Time
4. Technical Specification 3.7.5, Emergency Feedwater System.
5. Technical Specification 3.7.6, Upper Surge Tank (UST) and Hotwell (HW).
6. NSM ON-x3098 – Nuclear Station Modification to Install UST Inventory Protection System
7. UFSAR, Oconee Nuclear Station.
8. UFSAR Section 10.4.7.3.1.
9. UFSAR Section 3.7.3.9.

Attachment #2

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16.10 STEAM AND POWER CONVERSION SYSTEMS

16.10.8 Upper Surge Tank (UST) Riser Branch Line Automatic Isolation Valves

COMMITMENT

a. Automatic Isolation Valves 1, 2, 3C-903 and 904 shall be operable to close and Bypass Valve 1, 2, 3C-912 shall be closed in flow path to condenser hotwell.

b. Automatic Isolation Valves 1, 2, 3C-906 and 907 shall be operable to close in flow path to Powdex backwash pumps.

----------NOTE----------
Applicable only to units with the UST Inventory Protection modification installed.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
----------NOTE---------- Separate condition entry allowed for automatic valves in each flow path ----------	A.1 ----------NOTE---------- Only applicable in MODES 1, 2, and 3. ----------	
A. One of the two required automatic isolation valves inoperable in a flow path	Enter Condition B and Required Actions for TS 3.7.5.	Immediately
	AND	
	A.2 ----------NOTE---------- Exit Condition B of TS 3.7.5 upon completion of Required Action. ----------	
	Isolate the affected flow path.	72 hrs

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Two of the two required automatic isolation valves inoperable in a flow path	B.1 Enter Condition E and Required Actions for TS 3.7.5. AND B.2 ----------NOTE---------- Exit Condition E of TS 3.7.5 upon completion of Required Action. ---------- Isolate the affected flow path.	Immediately Immediately
C. ----------NOTE---------- Condition may be entered only after the following actions are taken: 1) Maximize UST level, 2) Place a dedicated operator in constant communication with the Control Room in the vicinity of C-912 3) Isolate flow path containing C-176 and C-187 ---------- Bypass valve C-912 open	C.1 Enter Condition B and Required Actions for TS 3.7.5. AND C.2 IF UST Level < 7.5 feet THEN Close C-912 AND C.3 ----------NOTE---------- Exit Condition B of TS 3.7.5 upon completion of Required Action. ---------- Close bypass valve C-912.	Immediately Immediately 72 hrs

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 16.10.8.1	Verify that valves C-903, 904, 906, 907 stroke closed within the allowed time on an actual or simulated actuation signal.	In accordance with IST Program

BACKGROUND

The Emergency Feedwater (EFW) pumps obtain their initial inventory of water from the Upper Surge Tanks (UST). The volume of water is also used for various other normal plant functions such as hotwell make-up and the backwashing of condensate polishing demineralizers. Technical Specification (TS) 3.7.6 requires a minimum of 30,000 gallons of condensate in the UST. This volume allows sufficient time for operators to swap over to the hotwell (Reference 8). If UST level begins to drop, all other plant loads need to be isolated in order to preserve this minimum volume of condensate such that it can be dedicated for EFW use. Once actuation level is reached, valves C-903 and 904 close to isolate most of these loads and C-906 and 907 close to isolate flow to the Powdex Backwash pumps. Bypass valve C-912 is provided to bypass C-903 and 904 in order to allow normal hotwell level control at any time valve C-903 or 904 are closed. This SLC is applicable only to units with the UST Inventory Protection modification installed.

APPLICABLE SAFETY ANALYSIS

Existing safety analyses for the EFW system assume that the 30,000 gallons of condensate are available from the UST for initial use by the EFW pumps. There are two main flow paths that branch off of the hotwell to UST riser that require closure. These are the C-903 and 904 flow path and the C-906 and 907 flow path. Valves C-903 and 904 are required to be OPERABLE to close when flow is aligned through this flow path. This flow path can also be bypassed by manual valve C-912, which effectively defeats the safety function provided by C-903 and 904. Valves C-906 and 907 are required to be OPERABLE to close when flow is aligned through this flow path. This flow path may be isolated by manual valves with minimal impact on normal plant operations.

Failure of one of the two automatic isolation valves does not defeat the safety function, but only reduces it to not being single failure proof. Test Acceptance Criteria provide acceptable closure times. If the flow path is manually isolated the function is OPERABLE. Operability of the valves requires the UST level instrumentation and associated controls needed to close valves C-903, 904, 906, and 907 to be OPERABLE.

APPLICABILITY

This SLC applies when any unit is in MODES 1, 2, 3, and MODE 4 when steam generators are relied upon for heat removal. This applicability is consistent with the EFW system operability requirement in Technical Specification 3.7.5, "Emergency Feedwater (EFW) System." Since valves C-903, 904, 906, and 907 support EFW operability, this SLC is applicable when any unit is in the MODE of Applicability.

ACTIONS

A.1 and A.2

If one of the two required automatic valves in either flow path (C-903/904 flow path or the C-906/907 flow path) is inoperable, that valve must be restored to OPERABLE status. Isolating the affected flow path removes the single failure vulnerability of the EFW flow path. If it is not isolated, only the redundant valve is available to automatically isolate flow diverted from the EFW flow path. This condition is equivalent to a loss of redundancy in the EFW system. Therefore, Required Action (RA) A.1 directs entry into TS 3.7.5 Condition B for a loss of an EFW flow path. RA A.1 is modified by a note indicating that it is only applicable in MODES 1, 2, and 3 since there is no equivalent TS 3.7.5 condition to enter when in MODE 4 and relying on SGs for heat removal. TS 3.7.5 does not require redundant flow paths to be OPERABLE, when in MODE 4. TS LCO 3.7.5 only requires one motor driven emergency feedwater (MDEFW) pump and one EFW flow path to be OPERABLE in MODE 4. RA A.2 requires the flow path be isolated within 72 hours. This completion time is consistent with the loss of redundancy addressed by TS 3.7.5 Condition B. Closure of the inoperable valve restores the safety function; therefore, TS 3.7.5 Condition B can be exited. RA A.2 is modified by a note clarifying that the Unit(s) exit TS 3.7.5 Condition B when the RA is completed. The Condition is modified by a Note indicating that separate condition entry can be made for either flow path (C-903/904 flow path or the C-906/907 flow path). This means a separate Completion Time applies to each flow path.

B.1 and B.2

If both valves in either the C-903/904 flow path or the C-906/907 flow path become INOPERABLE, RA B.1 directs entry into TS 3.7.5 Condition E. RA B.2 requires the affected flow path for these valves to be isolated immediately. The immediate Completion Time is equivalent to the Completion Time of RA E.1 of TS 3.7.5. RA B.2 is modified by a note clarifying that the Unit(s) exit TS 3.7.5 Condition E when the RA is completed. Isolating the affected path restores the EFW flow path by isolating these branch lines from the flow path, thus protecting the UST inventory. Prior to isolating the flow path, the inability of the valves to close poses a risk to EFW operations. If the control system for C-192, 176, and 187 fails such that the large valves go full open prior to isolating the flow path and EFW actuates, the UST could be depleted before swap over to the hotwell. This could lead to EFW pump damage.

C.1, C.2, and C.3

With bypass valve C-912 open it must be closed within 72 hours. The Note to the Condition indicates that it may only be entered after the following actions are taken:

1) Maximize UST level,
2) Place a dedicated operator in constant communication with the Control Room in the vicinity of C-912, and
3) Isolate the flow path containing C-176 and C-187.

RA C.1 directs entry into Condition B of TS 3.7.5 since opening this valve eliminates the single failure protection provided by automatic valves C-903 or 904. This valve is normally closed and would only be opened temporarily to allow continued unit operation. This allowance is addressed in Reference 9, which states that it is acceptable to open normally closed manual seismic boundary valves provided the opening and closing of these valves is controlled by

approved plant procedures and the valve will be opened for a required operating evolution with a clearly definable beginning and end time. Thus, procedures are required to control this evolution. RA C.2 requires that C-912 be closed immediately if the UST level drops below 7.5 feet to protect the inventory immediately available for EFW. RA C.3 requires C-912 be closed within 72 hours. This completion time is consistent with the loss of redundancy addressed by TS 3.7.5 Condition B. This valve is allowed to remain open for up to 72 hours to allow continued unit operation should maintenance or testing of C-903 or 904 be required and is justified by the prerequisites for entry into the condition and the requirement to close the valve should UST level drop below 7.5 feet. RA C.3 is modified by a note clarifying that the Unit(s) exit TS 3.7.5 Condition B when the RA is completed. If C-912 were to remain closed, hotwell inventory would reduce and condensate inventory could eventually be reduced (due to CST overflow to the Turbine Building Sump). The requirement to maximize level in the UST before entering the Condition increases the amount of time that the UST would be available as the EFW suction source before swap over to the hotwell is required. The requirement to dedicate an operator, who is in continuous communication with the control room, and is located in the vicinity of C-912, ensures the valve can be closed expeditiously if required. Isolating the flow path containing C-176 and C-187, which are large flow paths, prevents control system failures associated with those valves from consuming UST water rapidly and increases the time available for a dedicated operator in the vicinity of C-912 to close either C-912 or C-902.

SURVEILLANCE REQUIREMENTS

SR 16.10.8.1

Valves C-903, 904, 906, and 907 are active valves that are required to close automatically on low UST level. Since they are active valves, they are included in the In-Service Testing program. Their frequency will be determined by the IST program.

REFERENCES

1. OSC-7802 – "Mechanical Design Inputs for NSM ON-x3098"
2. OSC-8478 – "Electrical Design Inputs for NSM ON-x3098"
3. ONTC-0-121A-0001-001 – Test Acceptance Criteria for 1, 2, 3C-903, 904, 906, 907 Stroke Time
4. Technical Specification 3.7.5, Emergency Feedwater System.
5. Technical Specification 3.7.6, Upper Surge Tank (UST) and Hotwell (HW).
6. NSM ON-x3098 – Nuclear Station Modification to Install UST Inventory Protection System
7. UFSAR, Oconee Nuclear Station.
8. UFSAR Section 10.4.7.3.1.
9. UFSAR Section 3.7.3.9.