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Facility: **MCGUIRE NUCLEAR STATION**
 SUBJECT
MNS-SLC-16.9.7 Standby Shutdown System

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SELECTED LICENSEE COMMITMENTS (SLC)

LOES

SLCs ARE REVISED PER SECTION

SECTION	REVISION NUMBER	DATE
16.1	REVISION 148	2/27/15
16.2	REVISION 134	3/6/13
16.3	REVISION 134	3/6/13
16.4	Not Issued	
16.5.1	REVISION 151	9/29/15
16.5.2	REVISION 148	2/27/15
16.5.3	REVISION 151	9/29/15
16.5.4	REVISION 148	2/27/15
16.5.5	REVISION 148	2/27/15
16.5.6	DELETED - REVISION 120	12/30/10
16.5.7	REVISION 53	1/13/04
16.5.8	REVISION 0	12/14/99
16.5.9	REVISION 108	06/10/09
16.5.10	REVISION 134	3/6/13
16.6.1	REVISION 0	12/14/99
16.6.2	DELETED - REVISION 43	6/11/03
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16.6.4	REVISION 27	06/12/02
16.7.1	REVISION 149	2/25/15
16.7.2	REVISION 134	3/6/13
16.7.3	REVISION 136	4/26/13
16.7.4	REVISION 134	3/6/13
16.7.5	REVISION 134	3/6/13
16.7.6	REVISION 139	8/28/13
16.7.7	REVISION 134	3/6/13
16.7.8	REVISION 134	3/6/13
16.7.9	REVISION 134	3/6/13
16.7.10	REVISION 134	3/6/13
16.7.11	REVISION 134	3/6/13
16.7.12	REVISION 144	9/18/14
16.7.13	REVISION 146	10/14/14
16.7.14	REVISION 152	9/23/15
16.8.1	REVISION 135	3/18/13
16.8.2	REVISION 148	2/27/15
16.8.3	REVISION 121	12/30/10
16.9.1	REVISION 134	3/6/13
16.9.2	REVISION 134	3/6/13
16.9.3	REVISION 134	3/6/13
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16.9.6	REVISION 138	10/11/13
16.9.7	REVISION 153	10/1/15
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16.9.9	REVISION 154	10/1/15
16.9.10	DELETED - REVISION 13	2/26/01

SELECTED LICENSEE COMMITMENTS (SLC)

LOES

SLCs ARE REVISED PER SECTION

SECTION	REVISION NUMBER	DATE
16.9.11	REVISION 22	2/25/02
16.9.12	REVISION 148	2/27/15
16.9.13	DELETED - REVISION 13	2/26/01
16.9.14	REVISION 22	2/25/02
16.9.15	REVISION 134	3/6/13
16.9.16	REVISION 111	09/09/09
16.9.17	REVISION 86	1/17/07
16.9.18	REVISION 0	12/14/99
16.9.19	REVISION 134	3/6/13
16.9.20	REVISION 8	11/30/00
16.9.21	REVISION 0	12/14/99
16.9.22	REVISION 109	8/13/09
16.9.23	REVISION 134	3/6/13
16.9.24	DELETED - REVISION 74	6/27/05
16.9.25	REVISION 87	1/17/07
16.10.1	REVISION 56	4/6/04
16.11.1	REVISION 137	5/13/13
16.11.2	REVISION 134	3/6/13
16.11.3	REVISION 0	12/14/99
16.11.4	REVISION 134	3/6/13
16.11.5	REVISION 0	12/14/99
16.11.6	REVISION 137	5/13/13
16.11.7	REVISION 134	3/6/13
16.11.8	REVISION 0	12/14/99
16.11.9	REVISION 0	12/14/99
16.11.10	REVISION 134	3/6/13
16.11.11	REVISION 134	3/6/13
16.11.12	REVISION 67	2/28/05
16.11.13	REVISION 137	5/13/13
16.11.14	REVISION 21	1/17/02
16.11.15	REVISION 21	1/17/02
16.11.16	REVISION 134	3/6/13
16.11.17	REVISION 143	5/30/14
16.11.18	REVISION 0	12/14/99
16.11.19	REVISION 0	12/14/99
16.11.20	REVISION 0	12/14/99
16.12.1	REVISION 0	12/14/99
16.12.2	REVISION 0	12/14/99
16.13.1	REVISION 51	10/1/03
16.13.2	DELETED - REVISION 75	7/20/05
16.13.3	DELETED - REVISION 75	7/20/05
16.13.4	REVISION 148	2/27/15
16.14.1	REVISION 0	12/14/99
16.14.2	REVISION 104	3/18/09

16.9 AUXILIARY SYSTEMS - FIRE PROTECTION SYSTEMS

16.9.7 Standby Shutdown System

COMMITMENT The Standby Shutdown System (SSS) shall be FUNCTIONAL.

APPLICABILITY MODES 1, 2, and 3.

REMEDIAL ACTIONS

-----NOTE-----

1. The SRO should ensure that security is notified 10 minutes prior to declaring the SSS non-functional. Immediately upon discovery of SSS non-functionality, Security must be notified to implement compensatory measures within 10 minutes of the discovery.
2. If a non-functional SSS component is located inside containment, repairs shall be made at the first outage which permits containment access.

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>-----NOTE----- Not applicable to the SSS Diesel Generator or 24 V Battery Bank and Charger. -----</p>	A.1 Verify the FUNCTIONALITY of fire detection and suppression systems in the associated areas identified in Table16.9.7-1.	1 hour
A. One or more required SSS components identified in Table 16.9.7-1 non-functional.	<p><u>AND</u></p> <p>A.2 Restore the component to FUNCTIONAL status.</p>	7 days
B. SSS Diesel Generator or 24 V Battery Bank and Charger non-functional.	<p>B.1 Verify the FUNCTIONALITY of fire detection and suppression systems in the associated areas identified in Table16.9.7-1.</p> <p><u>AND</u></p>	<p>1 hour</p> <p>(continued)</p>

REMEDIAL ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. (continued).</p>	<p>B.2 Verify offsite power and one emergency diesel generator OPERABLE.</p> <p><u>AND</u></p> <p>B.3 Restore the component to FUNCTIONAL status.</p>	<p>1 hour</p> <p>7 days</p>
<p>C. Total Unidentified LEAKAGE, Identified LEAKAGE, and reactor coolant pump seal leakoff > 20 gpm.</p> <p><u>OR</u></p> <p>Total reactor coolant pump seal leakoff > 16.3 gpm.</p> <p><u>OR</u></p> <p>Any reactor coolant pump No. 1 seal leakoff > 4.0 gpm.</p>	<p>C.1 Declare the Standby Makeup Pump non-functional.</p> <p><u>AND</u></p> <p>C.2 Enter Condition A.</p>	<p>Immediately</p>
<p>D. Lake Norman level below 746 feet.</p>	<p>D.1 Verify the "C" Fire Suppression Pump is FUNCTIONAL (Unit 1 only).</p>	<p>1 hour</p>
<p>E. Required Action A.2 and its associated Completion Time not met.</p>	<p>E.1 Prepare and submit a Special Report to the NRC outlining the cause of the non-functionality, corrective actions taken, and plans for restoring the SSS to FUNCTIONAL status.</p>	<p>30 days</p>
<p>F. Required Action B.3 and its associated Completion Time not met.</p>	<p>F.1 Prepare and submit a Special Report to the NRC outlining the extent of repairs required, schedule for completing repairs, and basis for continued operation.</p>	<p>14 days</p>

TESTING REQUIREMENTS

TEST	FREQUENCY
<p>TR 16.9.7.1 Verify total Identified LEAKAGE, Unidentified LEAKAGE, and reactor coolant pump seal leakoff are ≤ 20 gpm.</p> <p><u>AND</u></p> <p>Verify total reactor coolant pump seal leakoff ≤ 16.3 gpm.</p> <p><u>AND</u></p> <p>Verify each reactor coolant pump No. 1 seal leakoff ≤ 4.0 gpm.</p>	72 hours
<p>TR 16.9.7.2 Verify the requirements for spent fuel pool water level in Surveillance Requirement 3.7.13.1 are met and the boron concentration in the spent fuel storage pool is within the limits specified in the COLR.</p> <p><u>AND</u></p> <p>Verify the refueling water storage tank (RWST) is capable of being aligned to the spent fuel pool.</p>	7 days
<p>TR 16.9.7.3 Verify fuel oil level in the SSS diesel generator fuel storage tank is ≥ 6.0 ft.</p>	31 days
<p>TR 16.9.7.4 Verify the SSS diesel generator starts from ambient conditions and operates for ≥ 30 minutes at ≥ 700 kW.</p>	31 days
<p>TR 16.9.7.5 Verify fuel oil properties of new and stored fuel oil for the SSS diesel generator are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.</p>	In accordance with the Diesel Fuel Oil Testing Program
<p>TR 16.9.7.6 Verify the SSS diesel generator 24 V battery voltage is ≥ 24 volts.</p>	31 days
<p>TR 16.9.7.7 Perform a CHANNEL CHECK of the SSS Instrumentation as required by Table 16.9.7-2.</p>	31 days
<p>TR 16.9.7.8 Verify the electrolyte level of each SSS 250/125 V battery bank is above the plates.</p>	31 days

(continued)

TESTING REQUIREMENTS (continued)

TEST	FREQUENCY
TR 16.9.7.9 Verify the total battery terminal voltage of each SSS 250/125 V battery bank is $\geq 258/129$ V on float charge.	31 days
TR 16.9.7.10 Verify the average specific gravity of each SSS 250/125 V battery bank is ≥ 1.200 .	92 days
TR 16.9.7.11 Verify the standby makeup pump's developed head and capacity is greater than or equal to that required by the Inservice Testing Supplemental Program.	92 days
TR 16.9.7.12 Verify the SSS diesel generator 24 V batteries and battery racks show no visual indication of physical damage or abnormal deterioration.	18 months
TR 16.9.7.13 Verify SSS diesel generator 24 V battery to battery and terminal connections are clean, tight, and free of corrosion.	18 months
TR 16.9.7.14 Perform a CHANNEL CALIBRATION of the SSS Instrumentation as required by Table 16.9.7-2.	18 months
TR 16.9.7.15 Perform inspection of SSS diesel generator in accordance with procedures prepared in conjunction with manufacturer's recommendations for class of service.	18 months
TR 16.9.7.16 Verify the SSS 250/125 V batteries, cell plates, and battery racks show no visual indication of physical damage or abnormal deterioration.	18 months
TR 16.9.7.17 Verify the SSS 250/125 V battery to battery and terminal connections are clean, tight, free of corrosion, and coated with anti-corrosion material.	18 months
TR 16.9.7.18 Verify the "C" solenoid to valve SA48ABC can be deenergized to provide steam supply to the turbine driven auxiliary feedwater pump.	18 months
TR 16.9.7.19 Verify the CA Storage Tank level is ≥ 20 feet.	24 hours
TR 16.9.7.20 Verify Lake Norman level is ≥ 746 feet	24 hours

TABLE 16.9.7-1
STANDBY SHUTDOWN SYSTEM
FIRE DETECTION & SUPPRESSION SYSTEMS VERIFICATION⁽¹⁾

NON-FUNCTIONAL SSS COMPONENT	FIRE DETECTION & SUPPRESSION SYSTEMS LOCATION								
	EL 716 EE-KK	EL 733 EE-KK	EL 750 EE-KK	Control Room	Battery Room	Cable Rooms	Turbine Driven AFW Pump	Motor Driven AFW Pump	Containment
SSS Diesel Generator ⁽³⁾	X	X	X	X	X	X	X	X	Note 2
SSS DG Starting 24 V Battery Bank and Charger ⁽³⁾	X	X	X	X	X	X	X	X	Note 2
Standby Makeup Pump and Water Supply	X	X	X						
SSS 250/125V Battery and Charger ⁽³⁾				X	X	X			Note 2
Turbine Driven AFW Pump and Water Supplies ⁽⁴⁾								X	
Turbine Driven AFW Pump Solenoid "C"								X	
Groundwater Drainage Sump Pump A, Sump A AND Groundwater Drainage Sump Pump A, Sump B								X	
Fire Suppression Pump "C" (see Condition D).								X	
INSTRUMENTATION:									
1. RCS Pressure				X	X	X			Note 2
2. Pressurizer Level				X	X	X			Note 2
3. SG Level				X	X	X			Note 2
4. Incore Temperature				X	X	X			Note 2
5. NC Wide Range Cold Leg Temperature				X	X	X			Note 2

NOTES:

1. If fire detection and/or suppression systems are non-functional, then the ACTION statement(s) of the applicable fire detection and/or suppression SLC shall be complied with.
2. Monitor containment air temperature at least once per hour at the locations specified in Technical Specification Surveillance Requirement 3.6.5.1 or 3.6.5.2, in lieu of verification of functionality of systems inside containment.
3. With this component non-functional, then denoted areas of both units are affected.
4. Water supplies include the Auxiliary Feedwater Storage Tank (CAST) and Condenser Circulating Water (RC) System via valves 1/2CA-316/317. Continuous vents at 1/2RN-1065 and 1RN-1066 support FUNCTIONALITY of the RC source for Unit 1 only.

TABLE 16.9.7-2

STANDBY SHUTDOWN SYSTEM
INSTRUMENTATION TESTING REQUIREMENTS

INSTRUMENT	REQUIRED CHANNELS	TESTING REQUIREMENTS	READOUT LOCATION
1. Reactor Coolant Pressure	1	TR 16.9.7.7 TR 16.9.7.14	SSF Control Panel
2. Pressurizer Level	1	TR 16.9.7.7 TR 16.9.7.14	SSF Control Panel
3. Steam Generator Level (Wide Range)	1 per SG	TR 16.9.7.7 TR 16.9.7.14	SSF Control Panel
4. Incore Temperature	1	TR 16.9.7.7 TR 16.9.7.14	SSF Control Panel
5. Standby Makeup Pump Flow	1	TR 16.9.7.14	SSF Control Panel
6. NC Wide Range Cold Leg Temperature	2	TR 16.9.7.7 TR 16.9.7.14	SSF Control Panel

BASES

The Standby Shutdown System (SSS) is designed to mitigate the consequences of certain postulated fire incidents, sabotage, or station blackout events by providing capability to maintain HOT STANDBY conditions and by controlling and monitoring vital systems from locations external to the main control room. The facility is credited with the ability to cope with a station black out (SBO) event of 4 hour duration. This capability is consistent with the requirements of 10 CFR Part 50, Appendix R and 10 CFR 50.63.

By design, the SSS is intended to respond to those low-probability events which render both the control room and automatic safety systems inoperable. Because of the low probability of occurrence of these events, the remedial actions rely on compensatory action, timely repair or return to functionality and, if necessary, a justification for continued operation.

Because the SSS performs a redundant fire protection function, compensatory action during periods when the SSS is non-functional relies largely on assurance of the functionality of fire detection and suppression systems. Table 16.9.7-1 establishes requirements for functionality of fire detection and suppression systems.

Both A&D NC Cold Leg Wide Range Temperatures are required for SSS functionality. This conclusion is based on NRC Correspondence during issuance of the original operating license.

The Source Range Wide Range Neutron Flux Instrumentation was installed at the SSS Control Panel as part of NRC review of this system in the early 1980s. The indication is not required for SSS functionality, based on the NRCs response to Duke dated July 21, 1983.

Controls and power to the pressurizer heater banks are included for SSF events; however, they are not required for SSS functionality. NRC Generic Letter 86-10 provides that conclusion.

The Testing Requirements ensure that the SSS systems and components are capable of performing their intended functions. The testing requirements were based largely on SSS Technical Specifications for the Catawba Nuclear Station, which was approved prior to the issuance of the fuel load license for Unit 1 of that plant. Also considered in the formulation of the testing requirements were existing McGuire Technical Specifications, such as those for the 1E Diesel Generators, Refueling Water Storage Tank, Fire Protection & Detection Systems, and other Tech Specs which are related to the safe operation and/or shutdown of the plant.

The required level in the SSS diesel generator fuel storage tank ensures sufficient fuel for 72 hours of uninterrupted operation. Per Appendix R requirements, the unit must be in cold shutdown within 72 hours of going to the SSF. The 72-hour supply of fuel oil assures this capability. The specified minimum fuel oil level required in the storage tank is based on Calculation MCC-1223.10-00-0003.

Testing has demonstrated the ability of plant operations to start the SSF diesel within 10 minutes of the recognition of an SBO event, thus satisfying the intent of NUMARC 87-00 guidance. The SSF diesel generator has sufficient capacity and capability to operate equipment necessary to achieve and maintain safe shutdown conditions for a 4-hour SBO event.

BASES (continued)

Fuel oil for the SSS diesel generator is tested and maintained in accordance with the same Diesel Fuel Oil Testing Program used for the 4kV emergency diesel generators (see Technical Specification 5.5.13, Surveillance Requirement 3.8.3.2 and associated Bases).

Although the Standby Makeup Pump is not nuclear safety-related and was not designed according to ASME code requirements, it is tested quarterly to ensure its FUNCTIONALITY. The Standby Makeup Pump (SMP) functions as part of the SSF to provide makeup capacity to the reactor coolant system and cooling flow to the reactor coolant pump (RCP) seals. The RCP seal leak-off flow is temperature dependent (i.e., the higher the temperature the higher the leak-off flow). During normal operation the RCP seals are supplied from the Centrifugal Charging Pump (CCP) drawing from the Volume Control Tank (VCT). During the SSF event, the SMP draws from the Spent Fuel Pool (SFP). During the SSF event there is no SFP cooling, so water injected into the RCP seals will have a higher temperature than during normal operation. The SMP is capable of providing a makeup capacity of 26 gpm. The revised SLC limit of 20 gpm total accumulative leakage is based on a calculation that was performed by Westinghouse, indicating increased RCP seal leak-off at higher seal water temperatures, to relate the SSF event leakage of 26 gpm at elevated RCP seal temperatures. This more conservative limit will ensure that the SMP will be capable of providing makeup and seal cooling flow equal to or greater than total leakage during the SSF event, increased RCP seal leak-off flow due to heat-up of the SFP, and still provide a margin of safety. As a conservative measure, during normal power operation the total accumulative system leakage (unidentified + identified + RCP seal leak-off flows) shall be limited to 20 gpm.

Testing Requirement 16.9.7.2 ensures that an adequate borated water volume is available to supply the SMP continuously for 72 hours (references 26 through 31). The SMP draws borated water from the SFP. Additional borated water inventory is transferred from the Refueling Water Storage Tank (RWST) to the SFP via gravity flow. Transfer of water from the RWST to the SFP maintains required SFP levels and adequate SMP net positive suction head.

The additional requirement that total RCP seal leak-off flow be ≤ 16.3 gpm resulted from a historical review of NRC correspondence that specified the SMP also provide for reactor coolant system makeup and boration in addition to RCP seal leakage requirements (Ref. 17). Calculations show that this upper limit for RCP seal leak-off provides sufficient margin to maintain the required unit conditions for a bounding SSS event.

Calculation MCC-1201.01-00-0053, Rev. 0, "MNS Units 1 & 2 Reactor Coolant Pump Response To Loss Of Seal Cooling," Sections 2 and 10 (Tab D, page 15) determined the elapsed time from loss of all seal cooling (loss of NV seal injection and loss of KC flow to the RCP thermal barrier heat exchanger) to when hot NC water entered the RCP No. 1 seal at varying seal leakoff rates. Chart interpolation determined that at a nominal No. 1 seal leakoff rate of 4 gpm, the seal would be at 235°F in 6.4 minutes from loss of all seal cooling event initiation. Therefore, for a maximum No. 1 seal leakoff of 4 gpm and if the Operators are instructed to stop all 4 RCPs at 3 minutes into the scenario, 3.4 minutes remain for the RCP motors to coast down to a stop and no seal rotation would occur above the No. 1 seal trip setpoint (235°F) during loss of all seal cooling. The 4 gpm limit is conservative based on the guidance provided in Westinghouse WCAP-17100, Section 1.2.3.4, "Response during a Loss of All Seal Cooling," and Westinghouse Technical Bulletin TB-04-22, Revision 1, for

BASES (continued)

RCP coast down times and time for hot NC system water to reach the No. 1 seal on loss of all seal cooling.

The Groundwater Drainage Sump Pump A, in the A (Unit 1) and B (Unit 2) sumps, can be controlled and powered from the SSF. These Sump Pumps remove accumulation of groundwater, Turbine driven AFW Pump drains, and other miscellaneous sources. For the SSS to be FUNCTIONAL, a minimum of one of these pumps must be FUNCTIONAL. Credit is taken for the groundwater underdrain system to transport water from one sump to the other.

The turbine driven AFW pump can be controlled from the SSF and is utilized during an SSS event to maintain adequate secondary side heat removal. For the SSS to be FUNCTIONAL, the turbine driven AFW pump must be FUNCTIONAL. For the turbine driven AFW pump to meet SSS functionality requirements, it requires a FUNCTIONAL SSS-related steam supply flowpath from the "C" steam generator (valve SA-48ABC). Additional detail regarding AFW SSS requirements can be found on the applicable AFW Teat Acceptance Criteria (TAC) sheets, and in the SSS Design Basis Specification, MCS-1223.SS-00-0001.

The turbine driven AFW pump water supply for the 4 hour SBO event is provided by the CA Storage Tank (CAST). The water supply for the 72 hour fire event is initially provided by the CAST then later by manual alignment to the RC system via valves 1/2CA-316/317. The Unit 1 valves are maintained closed to prevent air entrainment (Ref.22). Adequate CAST inventory of 200,000 gallons (20 feet of level) is ensured by TR 16.9.7.19. For a fire event, an initial CAST inventory is needed to allow time to perform the manual alignment from the CAST to the RC system. For Unit 1 only, in the remote chance that the level of Lake Norman drops below 746 feet, air entrainment from the RC system cannot be prevented. In this case, adequate water supplies for a fire event are ensured by making up to the Unit 1 CAST from the Fire Suppression system using the "C" Fire Suppression pump.

The SSF is provided with its own 250/125 VDC power system which is independent from the normal 125 VDC and 120 VAC vital I&C power systems. The SSF batteries are charged by the SSF diesel generator and are available to power the SSF instruments and controls necessary to achieve and maintain hot standby conditions from the SSF control room following a station blackout (SBO) event.

While the SSS 24 VDC battery charger is isolated for battery surveillance testing, the SSS Diesel Generator remains functional as long as the battery voltage is \geq 24 volts.

The SSS 125V batteries and battery chargers consist of three pairs SDSP1, SDSP2 and SDSS. Each pair consists of a battery and associated battery charger. Pair SDSS can be used to substitute for either pair SDSP1 or SDSP2. Only two of these pairs are required functional since pair SDSS is spare.

This selected licensee commitment is part of the McGuire Fire Protection Program and therefore subject to the provisions of McGuire Facility Operating License Conditions C.4 (Unit 1) and C.7 (Unit 2).

REFERENCES

1. McGuire Nuclear Station UFSAR, Chapter 9.5.1
2. McGuire Nuclear Station SER Supplement 2, Chapter 9.5.1 and Appendix D
3. McGuire Nuclear Station SER Supplement 5, Chapter 9.5.1 and Appendix B
4. McGuire Nuclear Station SER Supplement 6, Chapter 9.5.1 and Appendix C
5. McGuire Fire Protection Review, as revised
6. McGuire Fire Protection Safe Shutdown Review
7. IEEE 308-1974, Class 1E Power Systems
8. IEEE 450-1975, Maintenance Testing & Replacement of Large Lead Storage Batteries
9. OP/O/B/6350/04, Standby Shutdown Facility Diesel Operation
10. McGuire Nuclear Station Facility Operating Licenses, Unit 1 License Condition C.(4) and Unit 2 License Condition C.(7)
11. PIP 0-M-99-03926
12. PIP-M-01-3466
13. 10 CFR 50.63, Loss of All Alternating Current
14. Letter from H.B. Tucker to NRC, dated April 4, 1990, Requirements for Station Blackout.
15. Letter from H.B. Tucker to NRC, dated April 17, 1989, Requirements for Station Blackout.
16. McGuire Nuclear Station, Units 1 and 2, Safety Evaluation for Station Blackout (10CFR50.63), Dated February 19, 1992.
17. SAIC-91/1265, "Technical Evaluation Report, McGuire Nuclear Station, Station Blackout Evaluation," Dated December 10, 1991.
18. McGuire Nuclear Station UFSAR, Section 18.2.4, Chemistry Control Program.
19. MCS-1465.00-00-0019, "Plant Design Basis Specification For Station Blackout Rule," Rev. 3.
20. McGuire License Renewal Commitments MCS-1274.00-00-0016, Section 4.6, Chemistry Control Program.
21. PIP M-04-3317.
22. MCC-1223.42-00-0055, "Design Considerations and Bases for 1/2CA-161C and 1/2CA-162C Automatic Open Deletion Modifications MD101869 and MD201870."

REFERENCES (continued)

23. PIP M-08-00129.
24. MCC-1223.10-00-0003, "SSF D/G Fuel Oil Requirements".
25. 10 CFR 50, Appendix R, Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979.]
26. September 23, 1981 letter, R.A. Birkel (NRC) to Duke
27. October 21, 1981 letter, W.O. Parker Jr. (Duke) to H.R. Denton (NRC)
28. December 14, 1982 letter, H.B. Tucker (Duke) to H.R. Denton (NRC)
29. January 5, 1983 letter, H.B. Tucker (Duke) to H.R. Denton (NRC)
30. Suppl. 6 to McGuire Nuclear Station Safety Evaluation Report, NUREG-0422, February 1983.
31. MCC-1223.04-00-0012, "Critical Fuel Pool Level with Standby Makeup Pump Taking Suction," Rev. 3
32. MCS-1223.SS-00-0001, "Design Basis Specification for the Standby Shutdown System," Rev, 29

CLEANING MODE :