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 Dacus, Casey Michelle Gardner, Troy R Helton, Daniel E Mc Ginnis, Vickie L (At Mcguire) McCree, Victor M MCG DOC CNTRL MISC MAN MCG OPS PROCEDURE GP MCG OPS STAFF MGR MCG PLANT ENG. LIBR. Miller, Don Montgomery, Gary L OPS HUMAN PERFORMANCE - OPS TRNG MGR. RESIDENT NRC INSPECT SPENCER, William C U S NUC REG WASHINGTON, DC 	Facilit	y: <u>MC</u>	<u>GUIR</u>	<u>RE NU</u>	CLEAR	SUB	JOE							Duke 13225 Docur MG02 Hunte MNSD	y: Energ 5 Hage <u>nent N</u> <u>M</u> srsville CRM@	¥ <u>Aanag</u> 2, NC 2 Dduke	rry Ro lemen 28078 -ener	ad t gy.cor	n		
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Remarks: <u>Revision 151</u>																					

i.

ADOIL

Reactivity Control – Reduced Inventory Operation 16.5.3

16.5 REACTOR COOLANT SYSTEM

16.5.3 Reactivity Control – Reduced Inventory Operation

COMMITMENT The following independent sources and makeup paths of borated water must be available:

- a. One high head source from either an NI or NV pump train A or train B taking suction on the FWST and capable of discharging to the RCS, and
- b. One low head (gravity) source supplied from the FWST to the RCS.

APPLICABILITY: RCS level < 60 inches (wide range) with irradiated fuel in the core.

REMEDIAL ACTIONS

	CONDITION	· -	REQUIRED ACTION	COMPLETION TIME			
А.	Commitment not met.	A.1	Initiate action to restore the required makeup sources.	Immediately			
		<u>AND</u>					
		A.2	Suspend all activities that could perturb RCS level or which may reduce the reliability of the operating ND loop.	Immediately			

TESTING REQUIREMENTS

None

McGuire Units 1 and 2

Reactivity Control – Reduced Inventory Operation 16.5.3

BASES

Generic Letter 88-17 and NUREG 1410 involve concerns associated with a loss of Residual Heat Removal (RHR) during Reactor Coolant System (RCS) reduced inventory. Numerous events have occurred in the industry that resulted in a loss of RHR during reduced inventory operation. This is of great concern due to the potential for substantial core damage occurring in a relatively short time period. This SLC depicts those commitments that are extremely important to nuclear safety, however, are not presently covered by Technical Specifications.

GL 88-17 requested each licensee to respond to eight recommended expeditious actions. Action 6 of this GL recommended that at least two available or operable means of adding inventory to the RCS should be provided that are in addition to pumps that are a part of the normal RHR systems. These should include at least one high pressure injection pump. The water addition rate capable of being provided by each of the means should be at least sufficient to keep the core covered.

McGuire Nuclear Station response to GL 88-17 stated that several means of inventory makeup have been identified to ensure required flow path availability during outages. At least two of these flow paths will be "protected" to ensure their availability during all phases of an outage. One high head injection pump (either NI or NV) is currently an allowed borated water source from the FWST Selected Licensee Commitment 16.9.12 in Modes 4, 5, and 6. The low head (gravity) injection path consists of a driving head and inventory from the FWST. The loss of RHR abnormal procedure provides guidance to the operator on the use of the available makeup flow paths.

REFERENCES

- 1. Generic Letter 88-17, Loss of Decay Heat Removal
- 2. NUREG 1410, Loss of Vital AC Power and Residual Heat Removal During Mid-Loop Operation at Vogtle Nuclear Station.
- 3. Integrated Scheduling Management Procedure 3.1, Outage Planning and Execution Responsibilities
- 4. McGuire Nuclear Station responses to GL 88-17, dated January 3, 1989, February 2, 1989, March 10, 1989 and February 24, 1993.
- 5. NSD 403: Shutdown Risk Management (Modes 4, 5, 6, and No-Mode) per 10 CFR 50.65(a)(4).
- 6. PIPs M-14-10887 and M-14-10888.