

- (2) AmerGen Energy Company, LLC, pursuant to the Act and 10 CFR Parts 30.40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as reactor fuel, sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required for reactor operation;
- (3) AmerGen Energy Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess at either TMI-1 or TMI-2, and use in amounts as required for TMI-1 any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis, testing, instrument calibration, or associated with radioactive apparatus or components. Other than radioactive apparatus and components to be used at TMI Unit 2 in accordance with the TMI-2 License, the radioactive apparatus and components that may be moved from TMI Unit 1 to TMI Unit 2 under this provision shall be limited to: (1) outage-related items (such as contaminated scaffolding, tools, protective clothing, portable shielding and decontamination equipment); and (2) other equipment belonging to TMI Unit 1 when storage of such equipment at TMI-2 is deemed necessary for load handling or contamination control considerations;
- (4) AmerGen Energy Company, LLC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess at the TMI Unit 1 or Unit 2 site, but not separate, such byproduct and special nuclear materials as may be produced by the operation of either unit. Radioactive waste may be moved from TMI Unit 2 to TMI Unit 1 under this provision for collection, processing (including decontamination), packaging, and temporary storage prior to disposal. Radioactive waste that may be moved from TMI Unit 1 to TMI Unit 2 under this provision shall be limited to: (1) dry active waste (DAW) temporarily moved to TMI Unit 2 during waste collection activities, and (2) contaminated liquid contained in shared system piping and tanks. Radioactive waste that may be moved from TMI Unit 1 to TMI Unit 2 under this provision shall not include spent fuel, spent resins, filter sludge, evaporator bottoms, contaminated oil, or contaminated liquid filters.

The storage of radioactive materials or radwaste generated at TMI Unit 2 and stored at TMI Unit 1 shall not result in a source term that, if released, would exceed that previously analyzed in the UFSAR in terms of offsite dose consequences.

The storage of radioactive materials or radwaste generated at TMI Unit 1 and stored at TMI Unit 2 shall not result in a source term that, if released, would exceed that previously analyzed in the PDMS SAR for TMI Unit 2 in terms of off-site dose consequences.

- c. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

- (1) Maximum Power Level

AmerGen Energy Company, LLC is authorized to operate the facility at steady state reactor core power levels not in excess of 2568 megawatts thermal.

- (2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 263 are hereby incorporated in the license. The AmerGen Energy Company, LLC shall operate the facility in accordance with the Technical Specifications.

**3.3 EMERGENCY CORE COOLING, REACTOR BUILDING EMERGENCY COOLING AND REACTOR BUILDING SPRAY SYSTEMS (Contd.)**

- b. **CFT** boron concentration shall not be less than 2,270 ppm boron. Specification 3.3.2.1 applies.
- c. The electrically operated discharge valves from the **CFT** will be assured open by administrative control and position indication lamps on the engineered safeguards status panel. Respective breakers for these valves shall be open and conspicuously marked. A one hour time clock is provided to open the valve and remove power to the valve. Specification 3.0.1 applies.
- d. DELETED
- e. **CFT** vent valves CF-V-3A and CF-V-3B shall be closed and the breakers to the **CFT** vent valve motor operators shall be tagged open, except when adjusting core flood tank level and/or pressure. Specification 3.0.1 applies.

**3.3.1.3 Reactor Building Spray System and Reactor Building Emergency Cooling System**

The following components must be OPERABLE:

- a. Two reactor building spray pumps and their associated spray nozzles headers and two reactor building emergency cooling fans and associated cooling units (one in each train). Specification 3.0.1 applies.
- b. The Reactor Building emergency sump pH control system shall be maintained with  $\geq 18,815$  lbs and  $\leq 28,840$  lbs of trisodium phosphate dodecahydrate (TSP). Specification 3.3.2.1 applies.

**3.3.1.4 Cooling Water Systems - Specification 3.0.1 applies.**

- a. Two nuclear service closed cycle cooling water pumps must be OPERABLE.
- b. Two nuclear service river water pumps must be OPERABLE.
- c. Two decay heat closed cycle cooling water pumps must be OPERABLE.
- d. Two decay heat river water pumps must be OPERABLE.
- e. Two reactor building emergency cooling river water pumps must be OPERABLE.

**3.3.1.5 Engineered Safeguards Valves and Interlocks Associated with the Systems in Specifications 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.1.4 are OPERABLE. Specification 3.0.1 applies.**

3.3 EMERGENCY CORE COOLING, REACTOR BUILDING EMERGENCY COOLING AND REACTOR BUILDING SPRAY SYSTEMS (Contd.)

- 3.3.2 Maintenance or testing shall be allowed during reactor operation on any component(s) in the makeup and purification, decay heat, RB emergency cooling water, RB spray, BWST level instrumentation, or cooling water systems which will not remove more than one train of each system from service. Components shall not be removed from service so that the affected system train is inoperable for more than 72 consecutive hours. If the system is not restored to meet the requirements of Specification 3.3.1 within 72 hours, the reactor shall be placed in a HOT SHUTDOWN condition within six hours.\*
- 3.3.2.1 If the CFT boron concentration is outside of limits, or if the TSP baskets contain amounts of TSP outside the limits specified in 3.3.1.3.b, restore the system to operable status within 72 hours. If the system is not restored to meet the requirements of Specification 3.3.1 within 72 hours, the reactor shall be placed in a HOT SHUTDOWN condition within six hours.
- 3.3.3 Exceptions to 3.3.2 shall be as follows:
- Both CFTs shall be OPERABLE at all times.
  - Both the motor operated valves associated with the CFTs shall be fully open at all times.
  - One reactor building cooling fan and associated cooling unit shall be permitted to be out-of-service for seven days.
- 3.3.4 Prior to initiating maintenance on any of the components, the duplicate (redundant) component shall be verified to be OPERABLE.

\* In accordance with AmerGen License Change Application dated February 14, 2001, and any requirements in the associated NRC Safety Evaluation, a portion of the Nuclear Service Water System piping between valves NR-V-3 and NR-V-5 may be removed from service and Nuclear Services River Water flow realigned through a portion of the Secondary Services River Water System piping for up to 14 days. This note is applicable for one time use during TMI Unit 1 Operating Cycle 13.

Bases

The requirements of Specification 3.3.1 assure that, before the reactor can be made critical, adequate engineered safety features are operable. Two engineered safeguards makeup pumps, two decay heat removal pumps and two decay heat removal coolers (along with their respective cooling water systems components) are specified. However, only one of each is necessary to supply emergency coolant to the reactor in the event of a loss-of-coolant accident. Both CFTs are required because a single CFT has insufficient inventory to reflood the core for hot and cold line breaks (Reference 1).

The operability of the borated water storage tank (BWST) as part of the ECCS ensures that a sufficient supply of borated water is available for injection by the ECCS in the event of a LOCA (Reference 2). The limits on BWST minimum volume and boron concentration ensure that 1) sufficient water is available within containment to permit recirculation cooling flow to the core, and 2) the reactor will remain at least one percent subcritical following a Loss-of-Coolant Accident (LOCA).

The contained water volume limit of 350,000 gallons includes an allowance for water not usable because of tank discharge location and sump recirculation switchover setpoint. Redundant heaters maintain the borated water supply at a temperature greater than 40°F.

The Reactor Building emergency sump pH control system ensures a sump pH between 7.3 and 8.0 during the recirculation phase of a postulated LOCA. A minimum pH level of 7.3 is required to reduce the potential for chloride induced stress corrosion cracking of austenitic stainless steel and assure the retention of elemental iodine in the recirculating fluid. A maximum pH value of 8.0 minimizes the

TABLE 4.1-1 (Continued)

<u>CHANNEL DESCRIPTION</u>	<u>CHECK</u>	<u>TEST</u>	<u>CALIBRATE</u>	<u>REMARKS</u>
38. OTSG Full Range Level	W	NA	R	
39. Turbine Overspeed Trip	NA	R	NA	
40. Deleted				
41. Deleted				
42. Diesel Generator Protective Relaying	NA	NA	R	
43. 4 KV ES Bus Undervoltage Relays (Diesel Start)				
a. Degraded Grid	NA	M(1)	A	(1) Relay operation will be checked by local test pushbuttons.
b. Loss of Voltage	NA	M(1)	R	(1) Relay operation will be checked by local test pushbuttons.
44. Reactor Coolant Pressure DH Valve Interlock Bistable	S(1)	M	R	(1) When reactor coolant system is pressurized above 300 psig or $T_{ave}$ is greater than 200°F.
45. Loss of Feedwater Reactor Trip	S(1)	S/A(1)	R	(1) When reactor power exceeds 7% power.
46. Turbine Trip/Reactor Trip	S(1)	S/A(1)	F	(1) When reactor power exceeds 45% power.
47. a. Pressurizer Code Safety Valve and PORV Tailpipe Flow Monitors	S(1)	NA	F	(1) When $T_{ave}$ is greater than 525°F.
b. PORV – Acoustic/Flow	NA	M(1)	R	(1) When $T_{ave}$ is greater than 525°F.
48. PORV Setpoints	NA	M(1)	R	(1) Per Specification 3.1.12 excluding valve operation.

TABLE 4.1-3 Cont'd

<u>Item</u>	<u>Check</u>	<u>Frequency</u>
4. Spent Fuel Pool Water Sample	Boron Concentration greater than or equal to 600 ppmb	Weekly
5. Secondary Coolant	Isotopic analysis for DOSE EQUIVALENT I-131 concentration	At least once per 72 hours when reactor coolant system pressure is greater than 300 psig or T <sub>av</sub> is greater than 200°F.
6. Deleted		
7. Deleted		
8. Deleted		
9. Deleted		
10. Deleted		
11. Deleted		
12. Deleted		

# Until the specific activity of the primary coolant system is restored within its limits.

\* Sample to be taken after a minimum of 2 EFPD and 20 days of POWER OPERATION have elapsed since the reactor was last subcritical for 48 hours or longer.

\*\* Deleted

\*\*\* Deleted

TABLE 4.1-5  
SYSTEM SURVEILLANCE REQUIREMENTS

<u>Item</u>	<u>Test</u>	<u>Frequency</u>
1. Core Flood Tank	a. Verify two core flood tanks each contain $940 \pm 30$ ft <sup>3</sup> borated water.	S
	b. Verify that two core flood tanks each contain $600 \pm 25$ psig.	S
	c. Verify CF-V-1A&B are fully open.	S
	d. Verify power is removed from CF-V-1A&B and CF-V-3A&B valve operators	M
2. Reactor Building Emergency Sump pH Control System	a. Verify the TSP baskets contain $\geq 18,815$ lbs and $\leq 28,840$ lbs of TSP.	R
	b. Verify that a sample from the TSP baskets provides adequate pH adjustment of borated water.	R