TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
7. AUXILIARY FEEDWATER					
a. Steam. Gen. Water Level-Low-Low					
i. Start Turbine Driven Pump	3/stm. gen.	2/stm. gen. any stm. gen.	2/stm. gen	1, 2, 3	14
ii. Start Motor Driven Pumps	3/stm gen.	2/stm. gen. any 2 stm. gen.	2/stm. gen.	1, 2, 3	14
b. Undervoltage-RCP Start Turbine-Driven Pump	(3)-1/bus	2	2	1	14
c. S. I. Start Motor-Driven Pumps	See 1 above (all S.I. initiating functions and requirements)				
d. Emergency Bus Undervoltage Start Motor Driven Pumps	1/bus	1	1	1, 2, 3	18
e. Trip of Main Feedwater Pumps Start Motor-Driven Pumps	1/pump	1	1	1, 2, 3	18

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
7. AUXILIARY FEEDWATER		
a. Steam Generator Water Level-low-low	$\geq$ 12% of narrow range instrument span each steam generator	$\geq$ 11% of narrow range instrument span each steam generator
b. Undervoltage - RCP	$\geq$ 2750 volts RCP bus voltage	$\geq$ 2725 volts RCP bus voltage
c. S.I.	See 1 above (all SI Setpoints)	
d. Emergency Bus Undervoltage	$\leq$ 3350 volts	$\leq$ 3325 volts
e. Trip of Main Feedwater Pumps	N/A	N/A

TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
11. Steam Generator Water Level-Low-low	
a. Mot -driven Auxiliary Feedwater Pumps**	60.0
b. Turb iven Auxiliary Feedwater Pumps***	60.0
12. Undervoltage RCP	
a. Turbine-driven Auxiliary Feedwater Pumps	60.0
13. Emergency Bus Undervoltage	
a. Motor-driven Auxiliary Feedwater Pumps	60.0
14. Trip of Main Feedwater Pumps	
a. Motor-driven Auxiliary Feedwater Pumps	60.0
Note: Response time for Motor-driven Auxiliary Feedwater Pumps on all S.I. signal starts	60.0

***on 2/3 any Steam Generator
**on 2/3 in 2/3 Steam Generators

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
7. AUXILIARY FEEDWATER				
a. Steam Generator Water Level-Low-Low	S	R	M	1, 2, 3
b. Undervoltage - RCP	S	R	M	1
c. S.I.	See 1 above (all SI surveillance requirements)			
d. Emergency Bus Undervoltage	N/A	R	R	1, 2, 3
e. Trip of Main Feedwater Pumps	N/A	N/A	R	1, 2, 3

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 The accident monitoring instrumentation channels shown in Table 3.3.11 shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

a. With the number of OPERABLE accident monitoring instrumentation channels less than the Total Number of Channels shown in Table 3.3.11, either restore the inoperable channel(s) to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours except for the PORV(s) which may be isolated in accordance with Specification 3.4.11.a.

b. With the number of OPERABLE accident monitoring instrumentation channels less than the MINIMUM CHANNELS OPERABLE requirements of Table 3.3.11, either restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-7.

TABLE 3.3-11

ACCIDENT MONITORING INSTRUMENTATION

	INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
11.	Pressurizer Water Level	(3)	(2)
12.	Auxiliary Feedwater Flow Rate	(1) per steam gen.	(1) per steam gen.
13.	Reactor Coolant System Subcooling Margin Monitor	(1)	(0)
14.	PORV Accoustical Detector Position Indicator	2/valve*	1/valve
15.	PORV Limit Switch Position Indicator	1/valve	0/valve
16.	PORV Block Valve Limit Switch Position Indicator	1/valve	0/valve
17.	Safety Valve Accoustical Detector Position Indicator	2/valve*	1/valve
18.	Safety Valve Temperature Detector Position Indicator	1/valve	0/valve

* One Detector Active, Second Detector Passive

Proposed Wording

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
11.	Pressurizer Water Level	M	R
12.	Auxiliary Feedwater Flow Rate	S/U(1)	R
13.	Reactor Coolant System Subcooling Margin Monitor	M	R
14.	PORV Accoustical Detector Position Indicator	M	R
15.	PORV Limit Switch Position Indicator	M	R
16.	PORV Block Valve Limit Switch Position Indicator	M	R
17.	Safety Valve Accoustical Detector Position Indicator	M	R
18.	Safety Valve Temperature Detector Position Indicator	M	R

(1) Channel check to be performed in conjunction with Surveillance Requirement 4.7.1.2.a.9 following an extended plant outage.

PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.4 The pressurizer shall be OPERABLE with at least (150) kw of pressurizer heaters and with a steam bubble.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With the pressurizer inoperable due to less than 150 kw of heaters supplied by an emergency bus, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 12 hours. With the pressurizer otherwise inoperable, be in at least HOT STANDBY with the reactor trip breakers open within 6 hours and in the HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.4.1 The emergency power supply for the pressurizer heaters shall be demonstrated OPERABLE at least once per 18 months by energizing the heaters supplied by the emergency bus.

3/4 4.11 RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.4.11 (Two) power operated relief valves (PORVs) and their associated block valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

a. With less than 2 PORV(s) inoperable, within 1 hour either restore two PORV(s) to OPERABLE status or close the associated block valve(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one or more block valve(s) inoperable, within 1 hour either restore the block valve(s) to OPERABLE status or close the block valves(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.11.1 Each PORV shall be demonstrated OPERABLE:

a. At least once per 31 days by performance of a CHANNEL CHECK of the position indication, excluding valve operation and

b. At least once per 18 months by performance of a CHANNEL CALIBRATION.

4.4.11.2 Each block valve shall be demonstrated OPERABLE at least once per 92 days by operating the valve through one complete cycle of full travel.

4.4.11.3 The emergency power supply for the PORVs and block valves shall be demonstrated OPERABLE at least once per 18 months by operating the valves through a complete cycle of full travel.

TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION#

SINGLE UNIT FACILITY

LICENSE CATEGORY QUALIFICATIONS	APPLICABLE MODES 1, 2, 3 and 4	5 and 6
SRO*	2	1**
RO	2	1
Non-Licensed Auxiliary Operator	2	1
Shift Technical Advisor	1	None Required

* Includes the licensed Senior Reactor Operator serving as the Shift Supervisor.

** Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising CORE OPERATIONS.

\# Shift crew composition may be one less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent.

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for the Radiation Control Supervisor who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, and the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design and response analysis of the plant for transients and accidents.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

6.4.2 A Training program for the Emergency Squad shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements of Section 27 of the NEPA Code-1976.

6.5 REVIEW AND AUDIT

6.5.1 ONSITE SAFETY COMMITTEE (OSC)

FUNCTION

6.5.1.1 The OSC shall function to advise the Plant Superintendent on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The OSC shall be composed of the:

Chairman:	Chief Engineer
Member:	Operations Supervisor
Member:	Radiation Control Supervisor
Member:	Maintenance Supervisor
Member:	Nuclear Engineering & Refueling Supervisor
Member:	Results Coordinator
Member:	Training Supervisor
Member:	Office Manager Nuclear (Security Officer)
Member:	Senior Engineer - Emergency Planning and Fire Protection
Member:	Technical Advisory Engineer

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the OSC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in OSC activities at any one time.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.6 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.3.8 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Plants to Assess Plant Conditions During and Following an Accident," December 1975 and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations."

Proposed Wording

relieve any overpressure condition which could occur during shutdown. In the event that no safety valves are OPERABLE, an operating RHR loop, connected to the RCS, provides overpressure relief capability and will prevent RCS overpressurization.

During operation, all pressurizer code safety valves must be OPERABLE to prevent the RCS from being pressurized above its safety limit of 2735 psig. The combined relief capacity of all of these valves is greater than the maximum surge rate resulting from a complete loss of load assuming no reactor trip until the first Reactor Protective System trip set point is reached (i.e., no credit is taken for a direct reator trip on the loss of load) and also assuming no operation of the power operated relief valves or steam dump valves.

Demonstration of the safety valves' lift settings will occur only during shutdown and will be performed in accordance with the provisions of Subsection IWV-3510 of Section XI of the ASME Boiler and Pressure Code, dated July 1974.

3/4.4.4 PRESSURIZER

The requirement that (150)kw of pressurizer heaters and their associated controls be capable of being supplied electrical power from an emergency bus provides assurance that these heaters can be energized during a loss of offsite power condition to maintain natural circulation at HOT STANDBY.

3/4.4.5 STEAM GENERATORS

One OPERABLE steam generator in a non-isolated reactor coolant loop provides sufficient heat removal capability to remove decay heat after a reactor shutdown. The requirement for two OPERABLE steam generators, combined with other requirements of the Limiting Conditions for Operation ensures adequate decay heat removal capabilities for RCS temperatures greater than 350°F if one steam generator becomes inoperable due to single failure considerations. Below 350°F, decay heat is removed by the RHR system.

Propsed Wording

vessel inside radius are essentially identical, the measured transition shift for a sample can be applied with confidence to the adjacent section of the reactor vessel. The heatup and cooldown curves must be recalculated when the ΔRT_{NDT} determined from the surveillance capsule is different from the calculated ΔRT_{NDT} for the equivalent capsule radiation exposure.

The pressure-temperature limit lines shown on Figure 3.4-2 for reactor criticality and for inservice leak and hydrostatic testing have been provided to assure compliance with the minimum temperature requirements of AppendiX G to 10 CFR 50 for reactor criticality and for inservice leak and hydrostatic testing.

The number of reactor vessel irradiation surveillance specimens and the frequencies for removing and testing these specimens are provided in Table 4.4-3 to assure compliance with the requirements of Appendix H to 10 CFR Part 50.

The limitations imposed on the pressurizer heatup and cooldown rates and spray water temperature differential are provided to assure that the pressurizer is operated within the design criteria assumed for the fatigue analysis performed in accordance with the ASME Code requirements.

3/4.4.10 STRUCTURAL INTEGRITY

The inservice inspection and testing programs for ASME Code Class 1, 2 and 3 components ensure that the structural integrity and operational readiness of these components will be maintained at an acceptable level throughout the life of the plant. These programs are in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR Part 50.55a(g) except where specific written relief has been granted by the Commission pursuant to 10 CFR Part 50.55a (g)(6)(i).

3/4.4.11 RELIEF VALVES

The relief valves have remotely operated block valves to provide a positive shutoff capability should a relief valve become inoperable. The electrical power for both the relief valves and the block valves is capable of being supplied from an emergency power source to ensure the ability to seal this possible RCS leakage path.

LICENSE CONDITIONS FOR NUREG-0578 TMI-2 LESSONS LEARNED

CATEGORY "A" ITEMS

Systems Integrity

Duquesne Light Company shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:

1. Provisions establishing preventive maintenance and periodic visual inspection requirements, and

2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

Iodine Monitoring

Duquesne Light Company shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,

2. Procedures for monitoring, and

3. Provisions for maintenance of sampling and analysis equipment.

Backup Method For Determining Subcooling Margin

Duquesne Light Company shall implement a program which will ensure the capability to accurately monitor the Reactor Coolant System subcooling margin. This program shall include the following:

1. Training of personnel, and

2. Procedures for monitoring.