ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

NPF-11	NPF-18
3/4 3-6	3/4 3-6
Insert A	Insert A
3/4 3-18	3/4 3-18
3/4 3-19	3/4 3-19
Insert B	Insert B
3/4 3-31	3/4 3-31
Insert C	Insert C
B 3/4 3-1	B 3/4 3-1
Insert D	Insert D
B 3/4 3-2	B 3/4 3-2
Insert E	Insert E
Insert F	Insert F

TABLE 3.3.1-2

REACTOR PROTECTION SYSTEM RESPONSE TIMES

FUNCTIONAL UNIT	RESPONSE TIME (Seconds)
1. Intermediate Range Monitors:	
a. Neutron Flux - High*	NA
b. Inoperative	NA
2. Average Power Range Monitor*	
a. Neutron Flux - High, Setdown	NA
b. Flow Biased Simulated Thermal Power-Upscale	$\leq$ 0.09**
c. Fixed Neutron Flux - High	$\leq$ 0.09
d. Inoperative	NA
3. Reactor Vessel Steam Dome Pressure - High	$\leq$ 0.55##
4. Reactor Vessel Water Level - Low, Level 3	$\leq$ 1.05##
5. Main Steam Line Isolation Valve - Closure	$\leq$ 0.06
6. Main Steam Line Radiation - High	NA
7. Primary Containment Pressure - High	NA
8. Scram Discharge Volume Water Level - High	NA
9. Turbine Stop Valve - Closure	$\leq$ 0.06
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	$\leq$ 0.08#
11. Reactor Mode Switch Shutdown Position	NA
12. Manual Scram	NA
13. Control Rod Drive	
a. Charging Water Header Pressure - Low	NA
b. Delay Timer	NA

*Neutron detectors are exempt from response time testing. Response time shall be measured from the detector output or from the input of the first electronic component in the channel.

**Not including simulated thermal power time constant.

#Measured from start of turbine control valve fast closure.

INSERT A

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT A

(Proposed footnote for Table 3.3.1-2)

Sensor is eliminated from response time testing for the RPS circuits. Response time testing and conformance to the administrative limits for the remaining channel including trip unit and relay logic are required.

TABLE 3.3.2-3

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

TRIP FUNCTION	RESPONSE TIME (Seconds)#
A. AUTOMATIC INITIATION	
1. PRIMARY CONTAINMENT ISOLATION	
a. Reactor Vessel Water Level	
1) Low, Level 3	N/A
2) Low Low, Level 2	N/A
3) Low Low Low, Level 1	≤ 1.0*,##
b. Drywell Pressure - High	N/A
c. Main Steam Line	
1) Radiation - High(**)	≤ 1.0*,##
2) Pressure - Low	≤ 2.0*,##
3) Flow - High	≤ 0.5*,##
d. Main Steam Line Tunnel Temperature - High	N/A
e. Condenser Vacuum - Low	N/A
f. Main Steam Line Tunnel ΔTemperature - High	N/A
2. SECONDARY CONTAINMENT ISOLATION	N/A
a. Reactor Building Vent Exhaust Plenum Radiation - High	
b. Drywell Pressure - High	
c. Reactor Vessel Water Level - Low, Level 2	
d. Fuel Pool Vent Exhaust Radiation - High	
3. REACTOR WATER CLEANUP SYSTEM ISOLATION	N/A
a. ΔFlow - High	
b. Heat Exchanger Area Temperature - High	
c. Heat Exchanger Area Ventilation ΔT-High	
d. SLCS Initiation	
e. Reactor Vessel Water Level - Low Low, Level 2	
4. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION	N/A
a. RCIC Steam Line Flow - High	
b. RCIC Steam Supply Pressure - Low	
c. RCIC Turbine Exhaust Diaphragm Pressure - High	
d. RCIC Equipment Room Temperature - High	
e. RCIC Steam Line Tunnel Temperature - High	
f. RCIC Steam Line Tunnel ΔTemperature - High	
g. Drywell Pressure - High	
h. RCIC Equipment Room ΔTemperature - High	
5. RHR SYSTEM STEAM CONDENSING MODE ISOLATION	N/A
a. RHR Equipment Area ΔTemperature - High	
b. RHR Area Cooler Temperature - High	
c. RHR Heat Exchanger Steam Supply Flow High	

TABLE 3.3.2-3 (Continued)

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

TRIP FUNCTION	RESPONSE TIME (Seconds)#
6. RHR SYSTEM SHUTDOWN COOLING MODE ISOLATION	N/A
a. Reactor Vessel Water Level - Low, Level 3	
b. Reactor Vessel (RHR Cut-In Permissive) Pressure - High	
c. RHR Pump Suction Flow - High	
d. RHR Area Cooler Temperature High	
e. RHR Equipment Area ΔT High	
B. MANUAL INITIATION	N/A
1. Inboard Valves	
2. Outboard Valves	
3. Inboard Valves	
4. Outboard Valves	
5. Inboard Valves	
6. Outboard Valves	
7. Outboard Valve	

TABLE NOTATIONS

* Isolation system instrumentation response time for MSIVs only. No diesel generator delays assumed.

** Radiation detectors are exempt from response time testing. Response time shall be measured from detector output or the input of the first electronic component in the channel.

\# Isolation system instrumentation response time specified for the Trip Function actuating the MSIVs shall be added to MSIV isolation time to obtain ISOLATION SYSTEM RESPONSE TIME for each valve.

INSERT B

N/A Not Applicable.

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT B
(Proposed footnote for Table 3.3.2-3)

"Sensor is eliminated from response time testing for the MSIV actuation logic circuits. Response time testing and conformance to the administrative limits for the remaining channel including trip unit and relay logic are required."

TABLE 3.3.3-3

EMERGENCY CORE COOLING SYSTEM RESPONSE TIMES

ECCS	RESPONSE TIME (Seconds)
1. LOW PRESSURE CORE SPRAY SYSTEM	≤ 60*,#
2. LOW PRESSURE COOLANT INJECTION MODE OF RHR SYSTEM (Pumps A, B, and C)	≤ 60*,#
3. AUTOMATIC DEPRESSURIZATION SYSTEM	NA
4. HIGH PRESSURE CORE SPRAY SYSTEM	≤ 41#
5. LOSS OF POWER	NA

*Injection valves shall be fully OPEN within 40 seconds after receipt of the reactor vessel pressure and ECCS Injection Line Pressure Interlock signal concurrently with power source availability and receipt of an accident initiation signal.

INSERT C

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT C
(Proposed footnote for Table 3.3.3-3)

"ECCS actuation instrumentation is eliminated from response time testing."

3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

The reactor protection system automatically initiates a reactor scram to:

a. Preserve the integrity of the fuel cladding.

b. Preserve the integrity of the reactor coolant system.

c. Minimize the energy which must be adsorbed following a loss-of-coolant accident, and

d. Prevent inadvertent criticality.

This specification provides the limiting conditions for operation necessary to preserve the ability of the system to perform its intended function even during periods when instrument channels may be out of service because of maintenance. When necessary, one channel may be made inoperable for brief intervals to conduct required surveillance.

The reactor protection system is made up of two independent trip systems. There are usually four channels to monitor each parameter with two channels in each trip system. The outputs of the channels in a trip system are combined in a logic so that either channel will trip that trip system. The tripping of both trip systems will produce a reactor scram. The system meets the intent of IEEE-279, 1971, for nuclear power plant protection systems. Specified surveillance intervals for MSIV-Closure, TSV-Closure, TCV-Closure, and the Manual Scram have been determined in accordance with NEDC-30851P-A, "Technical Specification Improvement Analyses for BWR Reactor Protection System", March 1988. The bases for the trip settings of the RPS are discussed in the bases for Specification 2.2.1.

The measurement of response time at the specified frequencies provides assurance that the protective functions associated with each channel are completed within the time limit assumed in the accident analysis. No credit was taken for those channels with response times indicated as not applicable. Response time may be demonstrated by any series of sequential, overlapping or total channel test measurement, provided such tests demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by either (1) inplace, onsite or offsite test measurements, or (2) utilizing replacement sensors with certified response times.

(INSERT D)

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT D

The measurement of response time at the specified frequencies provides assurance that the protective functions associated with each channel are completed within the time limit assumed in the accident analysis. The RPS RESPONSE TIME acceptance criteria are included in plant Surveillance procedures. Only those functions with times assumed in the accident analysis are required to be response time tested.

As stated in Note * of Table 3.3.1-2, Neutron detectors are exempt from response time testing. In addition, for Functional Units 3 and 4, per Note #, the associated sensors are not required to be response time tested. For these Functional Units, response time testing for the remaining channel components, including any analog trip units, is required. This allowance is supported by NEDO-32291-A, "System Analyses for the Elimination of Selected Response Time Testing Requirements," October 1995.

Response time may be demonstrated by any series of sequential, overlapping or total channel test measurement, provided such tests demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by either (1) inplace, onsite or offsite test measurements, or (2) utilizing replacement sensors with certified response times.

3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION

This specification ensures the effectiveness of the instrumentation used to mitigate the consequences of accidents by prescribing the OPERABILITY trip setpoints and response times for isolation of the reactor systems. When necessary, one channel may be inoperable for brief intervals to conduct required surveillance. Both channels of each trip system for the main steam tunnel ambient temperature and ventilation system differential temperature may be placed in an inoperable status for up to 4 hours for required reactor building ventilation system maintenance and testing and 12 hours for the required secondary containment Leak Rate test without placing the trip system in the tripped condition. This will allow for maintaining the reliability of the ventilation system and secondary containment. Some of the trip settings may have tolerances explicitly stated where both the high and low values are critical and may have a substantial effect on safety. The setpoints of other instrumentation, where only the high or low end of the setting have a direct bearing on safety, are established at a level away from the normal operating range to prevent inadvertent actuation of the systems involved.

Except for the MSIVs, the safety analysis does not address individual sensor response times or the response times of the logic systems to which the sensors are connected. For A.C. operated valves, it is assumed that the A.C. power supply is lost and is restored by startup of the emergency diesel generators. In this event, a time of 13 seconds is assumed before the valve starts to move. The safety analysis considers an allowable inventory loss which in turn determines the valve speed in conjunction with the 13 second delay. *

3/4.3.3 EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

The emergency core cooling system actuation instrumentation is provided to initiate actions to mitigate the consequences of accidents that are beyond the ability of the operator to control. This specification provides the OPERABILITY requirements, trip setpoints and response times that will ensure effectiveness of the systems to provide the design protection. Although the instruments are listed by system, in some cases the same instrument may be used to send the actuation signal to more than one system at the same time.

INSERT E

INSERT F

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT E

For the sensors associated with MSIV isolation, instrumentation channels are not required to be response time tested. Response time testing for the remaining channel components, including any analog trip units, is required. This allowance is supported by NEDO-32291-A, "System Analyses for the Elimination of Selected Response Time Testing Requirements," October 1995.

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT F

Per Note #, the ECCS actuation instrument channels are not required to be response time tested. The overall ECCS response time requirement, which includes diesel generator injection valves, pumps, and other components, still applies. This allowance is supported by NEDO-32291-A, "System Analyses for the Elimination of Selected Response Time Testing Requirements," October 1995.

TABLE 3.3.1-2
REACTOR PROTECTION SYSTEM RESPONSE TIMES

TABLE 3.3.1-2

REACTOR PROTECTION SYSTEM RESPONSE TIMES

FUNCTIONAL UNIT	RESPONSE TIME (Seconds)
1. Intermediate Range Monitors:	
a. Neutron Flux - High*	NA
b. Inoperative	NA
2. Average Power Range Monitor*	
a. Neutron Flux - High, Setdown	NA
b. Flow Biased Simulated Thermal Power-Upscale	≤ 0.09**
c. Fixed Neutron Flux - High	≤ 0.09
d. Inoperative	NA
3. Reactor Vessel Steam Dome Pressure - High	≤ 0.55##
4. Reactor Vessel Water Level - Low, Level 3	≥ 1.05##
5. Main Steam Line Isolation Valve - Closure	≤ 0.06
6. Main Steam Line Radiation - High	NA
7. Primary Containment Pressure - High	NA
8. Scram Discharge Volume Water Level - High	NA
9. Turbine Stop Valve - Closure	≤ 0.06
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	≤ 0.08#
11. Reactor Mode Switch Shutdown Position	NA
12. Manual Scram	NA
13. Control Rod Drive	
a. Charging Water Header Pressure - Low	NA
b. Delay Timer	NA

*Neutron detectors are exempt from response time testing. Response time shall be measured from the detector output or from the input of the first electronic component in the channel.

**Not including simulated thermal power time constant.

#Measured from start of turbine control valve fast closure.

INSERT A

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT A

(Proposed footnote for Table 3.3.1-2)

Sensor is eliminated from response time testing for the RPS circuits. Response time testing and conformance to the administrative limits for the remaining channel including trip unit and relay logic are required.

TABLE 3.3.2-3

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

TRIP FUNCTION	RESPONSE TIME (Seconds)#
A. AUTOMATIC INITIATION	
1. PRIMARY CONTAINMENT ISOLATION	
a. Reactor Vessel Water Level	
1) Low, Level 3	N/A
2) Low Low, Level 2	N/A
3) Low Low Low, Level 1	≤ 1.0*,##
b. Drywell Pressure - High	N/A
c. Main Steam Line	
1) Radiation - High(**)	≤ 1.0*,##
2) Pressure - Low	≤ 2.0*,##
3) Flow - High	≤ 0.5*,##
d. Main Steam Line Tunnel Temperature - High	N/A
e. Condenser Vacuum - Low	N/A
f. Main Steam Line Tunnel ΔTemperature - High	N/A
2. SECONDARY CONTAINMENT ISOLATION	N/A
a. Reactor Building Vent Exhaust Plenum Radiation - High	
b. Drywell Pressure - High	
c. Reactor Vessel Water Level - Low, Level 2	
d. Fuel Pool Vent Exhaust Radiation - High	
3. REACTOR WATER CLEANUP SYSTEM ISOLATION	N/A
a. ΔFlow - High	
b. Heat Exchanger Area Temperature - High	
c. Heat Exchanger Area Ventilation ΔT-High	
d. SLCS Initiation	
e. Reactor Vessel Water Level - Low Low, Level 2	
4. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION	N/A
a. RCIC Steam Line Flow - High	
b. RCIC Steam Supply Pressure - Low	
c. RCIC Turbine Exhaust Diaphragm Pressure - High	
d. RCIC Equipment Room Temperature - High	
e. RCIC Steam Line Tunnel Temperature - High	
f. RCIC Steam Line Tunnel ΔTemperature - High	
g. Drywell Pressure - High	
h. RCIC Equipment Room ΔTemperature - High	
5. RHR SYSTEM STEAM CONDENSING MODE ISOLATION	N/A
a. RHR Equipment Area ΔTemperature - High	
b. RHR Area Cooler Temperature - High	
c. RHR Heat Exchanger Steam Supply Flow High	

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

TRIP FUNCTION	RESPONSE TIME (Seconds)#
6. RHR SYSTEM SHUTDOWN COOLING MODE ISOLATION	N/A
a. Reactor Vessel Water Level - Low, Level 3	
b. Reactor Vessel (RHR Cut-In Permissive) Pressure - High	
c. RHR Pump Suction Flow - High	
d. RHR Area Cooler Temperature High	
e. RHR Equipment Area ΔT High	
B. MANUAL INITIATION	N/A
1. Inboard Valves	
2. Outboard Valves	
3. Inboard Valves	
4. Outboard Valves	
5. Inboard Valves	
6. Outboard Valves	
7. Outboard Valve	

TABLE NOTATIONS

* Isolation system instrumentation response time for MSIVs only. No diesel generator delays assumed.

** Radiation detectors are exempt from response time testing. Response time shall be measured from detector output or the input of the first electronic component in the channel.

\# Isolation system instrumentation response time specified for the Trip Function actuating the MSIVs shall be added to MSIV isolation time to obtain ISOLATION SYSTEM RESPONSE TIME for each valve.

INSERT B

N/A Not Applicable.

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT B
(Proposed footnote for Table 3.3.2-3)

"Sensor is eliminated from response time testing for the MSIV actuation logic circuits. Response time testing and conformance to the administrative limits for the remaining channel including trip unit and relay logic are required."

TABLE 3.3.3-3

EMERGENCY CORE COOLING SYSTEM RESPONSE TIMES

ECCS	RESPONSE TIME (Seconds)
1. LOW PRESSURE CORE SPRAY SYSTEM	≤ 60*,#
2. LOW PRESSURE COOLANT INJECTION MODE OF RHR SYSTEM (Pumps A, B, and C)	≤ 60*,#
3. AUTOMATIC DEPRESSURIZATION SYSTEM	NA
4. HIGH PRESSURE CORE SPRAY SYSTEM	≤ 41#
5. LOSS OF POWER	NA

*Injection valves shall be fully OPEN within 40 seconds after receipt of the reactor vessel pressure and ECCS Injection Line Pressure Interlock signal concurrently with power source availability and receipt of an accident initiation signal.

INSERT C

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT C
(Proposed footnote for Table 3.3.3-3)

[#] "ECCS actuation instrumentation is eliminated from response time testing."

3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

The reactor protection system automatically initiates a reactor scram to:

a. Preserve the integrity of the fuel cladding.

b. Preserve the integrity of the reactor coolant system.

c. Minimize the energy which must be adsorbed following a loss-of-coolant accident, and

d. Prevent inadvertent criticality.

This specification provides the limiting conditions for operation necessary to preserve the ability of the system to perform its intended function even during periods when instrument channels may be out of service because of maintenance. When necessary, one channel may be made inoperable for brief intervals to conduct required surveillance.

The reactor protection system is made up of two independent trip systems. There are usually four channels to monitor each parameter with two channels in each trip system. The outputs of the channels in a trip system are combined in a logic so that either channel will trip that trip system. The tripping of both trip systems will produce a reactor scram. The system meets the intent of IEEE-279, 1971, for nuclear power plant protection systems. Specified surveillance intervals for MSIV-Closure, TSV-Closure, TCV-Closure, and the Manual Scram have been determined in accordance with NEDC-30851P-A, "Technical Specification Improvement Analyses for BWR Reactor Protection System", March 1988. The bases for the trip settings of the RPS are discussed in the bases for Specification 2.2.1.

The measurement of response time at the specified frequencies provides assurance that the protective functions associated with each channel are completed within the time limit assumed in the accident analysis. No credit was taken for those channels with response times indicated as not applicable. Response time may be demonstrated by any series of sequential, overlapping or total channel test measurement, provided such tests demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by either (1) inplace, onsite or offsite test measurements, or (2) utilizing replacement sensors with certified response times.

INSERT D

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT D

The measurement of response time at the specified frequencies provides assurance that the protective functions associated with each channel are completed within the time limit assumed in the accident analysis. The RPS RESPONSE TIME acceptance criteria are included in plant Surveillance procedures. Only those functions with times assumed in the accident analysis are required to be response time tested.

As stated in Note * of Table 3.3.1-2, Neutron detectors are exempt from response time testing. In addition, for Functional Units 3 and 4, per Note #, the associated sensors are not required to be response time tested. For these Functional Units, response time testing for the remaining channel components, including any analog trip units, is required. This allowance is supported by NEDO-32291-A, "System Analyses for the Elimination of Selected Response Time Testing Requirements," October 1995.

Response time may be demonstrated by any series of sequential, overlapping or total channel test measurement, provided such tests demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by either (1) inplace, onsite or offsite test measurements, or (2) utilizing replacement sensors with certified response times.

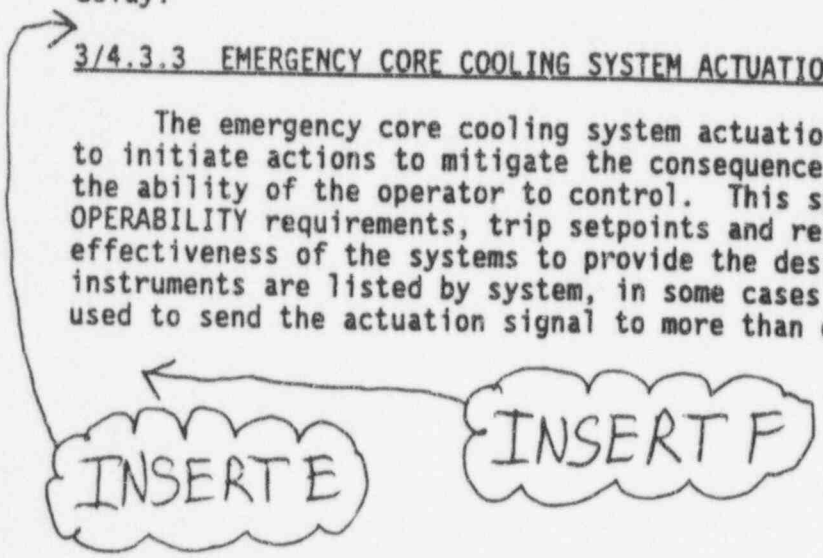
3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION

This specification ensures the effectiveness of the instrumentation used to mitigate the consequences of accidents by prescribing the OPERABILITY trip setpoints and response times for isolation of the reactor systems. When necessary, one channel may be inoperable for brief intervals to conduct required surveillance. Both channels of each trip system for the main steam tunnel ambient temperature and ventilation system differential temperature may be placed in an inoperable status for up to 4 hours for required reactor building ventilation system maintenance and testing and 12 hours for the required secondary containment Leak Rate test without placing the trip system in the tripped condition. This will allow for maintaining the reliability of the ventilation system and secondary containment. Some of the trip settings may have tolerances explicitly stated where both the high and low values are critical and may have a substantial effect on safety. The setpoints of other instrumentation, where only the high or low end of the setting have a direct bearing on safety, are established at a level away from the normal operating range to prevent inadvertent actuation of the systems involved.

Except for the MSIVs, the safety analysis does not address individual sensor response times or the response times of the logic systems to which the sensors are connected. For A.C. operated valves, it is assumed that the A.C. power supply is lost and is restored by startup of the emergency diesel generators. In this event, a time of 13 seconds is assumed before the valve starts to move. The safety analysis considers an allowable inventory loss which in turn determines the valve speed in conjunction with the 13 second delay.

3/4.3.3 EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

The emergency core cooling system actuation instrumentation is provided to initiate actions to mitigate the consequences of accidents that are beyond the ability of the operator to control. This specification provides the OPERABILITY requirements, trip setpoints and response times that will ensure effectiveness of the systems to provide the design protection. Although the instruments are listed by system, in some cases the same instrument may be used to send the actuation signal to more than one system at the same time.



ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT E

For the sensors associated with MSIV isolation, instrumentation channels are not required to be response time tested. Response time testing for the remaining channel components, including any analog trip units, is required. This allowance is supported by NEDO-32291-A, "System Analyses for the Elimination of Selected Response Time Testing Requirements," October 1995.

ATTACHMENT B

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT F

Per Note #, the ECCS actuation instrument channels are not required to be response time tested. The overall ECCS response time requirement, which includes diesel generator injection valves, pumps, and other components, still applies. This allowance is supported by NEDO-32291-A, "System Analyses for the Elimination of Selected Response Time Testing Requirements," October 1995.

ATTACHMENT C

SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison has evaluated the proposed Technical Specification Amendment and determined that it does not represent a significant hazards consideration. Based on the criteria for defining a significant hazards consideration established in 10 CFR 50.92, operation of LaSalle County Station Units 1 and 2 in accordance with the proposed amendment will not:

1) Involve a significant increase in the probability or consequences of an accident previously evaluated because:

The purpose of the proposed Technical Specification (TS) change is to eliminate response time testing requirements for selected components in the Reactor Protection System (RPS), Isolation Actuation instrumentation and Emergency Core Cooling System (ECCS) actuation instrumentation. The Boiling Water Reactor Owners' Group (BWROG) has completed an evaluation which demonstrates that response time testing is redundant to the other TS-required testing. These other tests, in conjunction with actions taken in response to NRC Bulletin 90-01, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount," and Supplement 1, are sufficient to identify failure modes or degradations in instrument response time and ensure operation of the associated systems within acceptable limits. There are no known failure modes that can be detected by response time testing that cannot also be detected by the other TS-required testing. This evaluation was documented in NEDO-32291-A, "System Analyses for the Elimination of Selected Response Time Testing Requirements," dated October 1995. LaSalle County Station, LaSalle, has confirmed the applicability of this evaluation to LaSalle. In addition, LaSalle will complete the actions identified in the NRC staffs safety evaluation of NEDO-32291-A.

Because of the continued application of other existing TS-required tests such as channel calibrations, channel checks, channel functional tests, and logic system functional tests, the response time of these systems will be maintained within the acceptance limits assumed in plant safety analyses and required for successful mitigation of an initiating event. The proposed changes do not affect the capability of the associated systems to perform their intended function within their required response time, nor do the proposed changes themselves affect the operation of any equipment. As a result, LaSalle has concluded that the proposed changes do not involve a significant increase in the probability or the

consequences of an accident previously evaluated.

2) Create the possibility of a new or different kind of accident from any accident previously evaluated because:

The proposed changes only apply to the testing requirements for the components identified above and do not result in any physical change to these or other components or their operation. As a result no new failure modes are introduced. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3) Involve a significant reduction in the margin of safety because:

The current TS-required response times are based on the maximum allowable values assumed in the plant safety analyses. These analyses conservatively establish the margin of safety. As described above, the proposed changes do not affect the capability of the associated systems to perform their intended function within the allowed response time used as the basis for the plant safety analyses. The potential failure modes for the components within the scope of this request were evaluated for impact on instrument response time. This evaluation confirmed that, with the exception of loss of fill-oil of Rosemount transmitters, the remaining TS-required testing is sufficient to identify failure modes or degradations in instrument response times and ensure that operation of the applicable instrumentation is within acceptable limits. The actions taken in response to NRC Bulletin 90-01 and Supplement 1 are adequate to identify loss of fill-oil failures of Rosemount transmitters. As a result, it has been concluded that plant and system response to an initiating event will remain in compliance with the assumptions of the safety analysis.

Further, although not explicitly evaluated, the proposed changes will provide an improvement to plant safety and operation by the following:

a. Reducing the time safety systems are unavailable,

ATTACHMENT C

SIGNIFICANT HAZARDS CONSIDERATION

b. Reducing the potential for safety system actuations,

c. Reducing plant shutdown risk,

d. Limiting radiation exposure to plant personnel, and

e. Eliminating the diversion of key personnel resources to conduct unnecessary testing.

Therefore, LaSalle has concluded that this request will not significantly reduce the margin of safety, and may actually cause an increase in the margin of safety.

Guidance has been provided in "Final Procedures and Standards on No Significant Hazards Considerations," Final Rule, 51 FR 7744, for the application of standards to license change requests for determination of the existence of significant hazards considerations. This document provides examples of amendments which are and are not considered likely to involve significant hazards considerations. These proposed amendments most closely fit the example of a change which may either result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria with respect to the system or component specified in Standard Review Plan. This proposed amendment does not involve a significant relaxation of the criteria used to establish safety limits, a significant relaxation of the bases for the limiting safety system settings or a significant relaxation of the bases for the limiting conditions for operations. Therefore, based on the guidance provided in the Federal Register and the criteria established in 10 CFR 50.92(c), the proposed change does not constitute a significant hazards consideration.

ATTACHMENT D

ENVIRONMENTAL ASSESSMENT STATEMENT APPLICABILITY REVIEW

Commonwealth Edison has evaluated the proposed amendment against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR Part 51.21. It has been determined that the proposed changes meet the criteria for categorical exclusion as provided for under 10 CFR Part 51.22(c)(9). This conclusion has been determined because the changes requested do not pose significant hazards considerations or do not involve a significant increase in the amounts, and no significant changes in the types of any effluents that may be released off-site. Additionally, this request does not involve a significant increase in individual or cumulative occupational radiation exposure.

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.1-2
RTT TRIP FUNCTION ITEM NO: 3.
SYSTEM DESCRIPTION: Reactor Protection System Response Times
TRIP FUNCTION DESCRIPTION: Rx Vessel Steam Dome Pressure - High
T.S. RTT REQUIREMENT (Secs): Less than or equal to 0.55

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Pressure Switch	Senses Reactor Steam Dome Pressure and trips on High Pressure.	B21-N023AA, Static-O-Ring; 9N6-B45-NX-C1A-JJTTX6
RPS scram Relay	De-energizes Scram Contactors C71A-K14A & C71A-K14E.	C71A-K5A; GE HFA
Scram Contactors	De-energizes the Scram Solenoids.	C71A-K14A, E; CR105 or CR305

Reference Drawing Numbers: -

1E-1-4215AC, Rev. AH
1E-1-4215AH, Rev. L

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.1-2
RTT TRIP FUNCTION ITEM NO: 4.
SYSTEM DESCRIPTION: Reactor Protection System Response Times
TRIP FUNCTION DESCRIPTION: Reactor Vessel Water Level - Low, Level 3
T.S. RTT REQUIREMENT (Secs): Less than or equal to 1.05

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Level Transmitter	Senses Reactor Water Level.	B21-N403A, Rosemount 1153
Master Trip Unit (MTU)	Provides trip signal for RPS on Reactor Water Level Low Level - 3.	B21-N703A, Rosemount 710DU
MTU Output Relay	De-energizes relay C71A-K6A.	B21-K104A, Agastat EGPB
RPS Scram Relay	De-energizes Scram Contactors C71A-K14A & C71A-K14E.	C71A-K6A, GE HFA
Scram Contactors	De-energizes the Scram Solenoids.	C71A-K14A, E; CR105 or CR305

Reference Drawing Numbers: -

1E-1-4215AC, Rev. AH
1E-1-4215AH, Rev. L
1E-1-4232AW, Rev. B

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.2-3
RTT TRIP FUNCTION ITEM NO: A.1.a.3)
SYSTEM DESCRIPTION: Isolation Sys. Instrumentation Response Time
TRIP FUNCTION DESCRIPTION: Rx Vessel Water Level-Low Low Low, Level 1
T.S. RTT REQUIREMENT (Secs): Less than or equal to 1.0*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Level - 1 Transmitter	Senses level and provides analog signal to MTU.	B21-N402A Rosemount 1153
Master Trip Unit (MTU)	Trips at preset value to de-energize the output relay.	B21-N702A Rosemount 710DU
MTU Output Relay	De-energizes Relay B21H-K6A on Reactor Water Level below Level - 1.	B21-K100A Agastat EGPB
Interfacing Relay	De-energizes Relays B21H-K16 and B21H-K51.	B21H-K7A GE HFA
Initiation Relay	De-energizes to close Outboard MSIVs.*	B21H-K16 GE HFA
Initiation Relay	De-energizes to close Inboard MSIVs.*	B21H-K51 GE HFA

* Isolation system instrumentation response time for MSIVs only.

Reference Drawing Numbers: -

1E-1-4232AB, Rev. X
1E-1-4232AU, Rev. C
1E-1-4203AB, Rev. T
1E-1-4203AF, Rev. W

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.2-3
RTT TRIP FUNCTION ITEM NO: A.1.c.1)
SYSTEM DESCRIPTION: Isolation Sys. Instrumentation Response Time
TRIP FUNCTION DESCRIPTION: Main Steam Line Radiation - High
T.S. RTT REQUIREMENT (Secs): Less than or equal to 1.0*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Gamma Ion Chamber Steam Line Detector*	Senses Radiation level & outputs to Log Radiation Monitor.	D18-N003A, GE
Log Radiation Monitor	De-energizes Relay C51-K73/Z2A	D18-K610A, GE,
Output Relay	De-energizes Relay C71A-K7A	C51-K73/Z2A, GE Z2 Aux Trip Unit
Interfacing Relay	De-energizes Relay B21H-K8A	C71A-K7A, GE HFA
Initiation Relay	De-energizes Relay B21H-K7A	B21H-K8A, GE HFA
Initiation Relay	De-energizes Relays B21H-K16 and B21H-K51	B21H-K7A, GE HFA
Initiation Relay	Closes outboard MSIVs.**	B21H-K16, GE HFA
Initiation Relay	Closes inboard MSIVs.**	B21H-K51, GE HFA

* Radiation Detectors are exempt from Response Time Testing.
** MSIVs Close on one-out-of two twice logic.

Reference Drawing Numbers:
1E-1-4218AE, Rev. F
1E-1-4215AC, Rev. AH
1E-1-4232AB, Rev. X
1E-1-4203AB, Rev. T
1E-1-4203AF, Rev. W

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.2-3
RTT TRIP FUNCTION ITEM NO: A.1.c.2)
SYSTEM DESCRIPTION: Isolation Sys. Instrumentation Response Time
TRIP FUNCTION DESCRIPTION: Main Steam Line Pressure - Low
T.S. RTT REQUIREMENT (Secs): Less than or equal to 2.0*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Pressure Switch	Senses pressure in MSL and de-energizes relay B21H-K4A on low pressure to initiate isol ation	B21-N015A, Static-O-Ring, 9N6-B45-C1A-JJTTX6
Interfacing Relay	De-energizes Relay B21H-K7A	B21H-K4A, GE HFA
Initiation Relay	De-energizes Relays B21H-K16 and B21H-K51	B21H-K7A, GE HFA
Initiation Relay	Closes outboard MSIVs.*	B21H-K16, GE HFA
Initiation Relay	Closes inboard MSIVs.*	B21H-K51, GE HFA

* MSIVs Close on one-out-of two twice logic.

Reference Drawing Numbers:
1E-1-4232AB, Rev. X
1E-1-4203AB, Rev. T
1E-1-4203AF, Rev. W

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.2-3
RTT TRIP FUNCTION ITEM NO: A.1.c.3)
SYSTEM DESCRIPTION: Isolation Sys. Instrumentation Response Time
TRIP FUNCTION DESCRIPTION: Main Steam Line Flow - High
T.S. RTT REQUIREMENT (Secs): Less than or equal to 0.5*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Differential Pressure Switch	Senses MSL flow and de-energizes relay B21H-K3A on high flow to initiate isolation	B21-N008A through 9A, Static-O-Ring, 102AS-B035-NX-C1A-JJTTX6
Interfacing Relay	De-energizes Relay B21H-K7A	B21H-K3A, GE HFA
Initiation Relay	De-energizes Relays B21H-K16 and B21H-K51	B21H-K7A, GE HFA
Initiation Relay	Closes outboard MSIVs.*	B21H-K16, GE HFA
Initiation Relay	Closes inboard MSIVs.*	B21H-K51, GE HFA

* MSIVs Close on one-out-of two twice logic.

Reference Drawing Numbers:
1E-1-4232AB, Rev. X
1E-1-4203AB, Rev. T
1E-1-4203AF, Rev. W

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (1 of 2)
RTT TRIP FUNCTION ITEM NO: 1. & 2.
SYSTEM DESCRIPTION: Low Pressure Core Spray/A RHR(LPCI mode)
TRIP FUNCTION DESCRIPTION: Rx Vessel Water Level-Low Low Low, Level 1
T.S. RTT REQUIREMENT (Secs): Less than or equal to 60*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Level Transmitter	Senses level and provides analog signal to MTU.	B21-N407A, C Rosemount 1154
Master Trip Unit (MTU)	Trips at preset value to Energize the output relay.	B21A-N707A, C Rosemount 710DU
MTU Output Relay	Energizes Relay E21A-K2, E21A-K3 on Reactor Water Level below Level - 1.	B21A-K707AX, CX Agastat EGPB
Initiation Relay	Energizes Relay E21A-K10 based on Drywell High Pressure & Rx Low Level Logic.	E21A-K2, E21A-K3 GE HFA
Initiation Relay	Energizes E12A-K98A and E12A-K9A to initiate logic to start 0 diesel generator and RHR A. Energizes E21A-K12 to provide a permissive to start LPCS if power is available. Energizes E21A-K14 to open LPCS Injection valve if rx pressure is low and power is available.	E21A-K10 GE HFA
Initiation Relay	Energizes to interlock the start of LPCS.	E21A-K12 GE HMA

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (2 of 2)
RTT TRIP FUNCTION ITEM NO: 1. & 2.
SYSTEM DESCRIPTION: Low Pressure Core Spray/A RHR(LPCI mode)
TRIP FUNCTION DESCRIPTION: Rx Vessel Water Level-Low Low Low, Level 1
T.S. RTT REQUIREMENT (Secs): Less than or equal to 60*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Initiation Relay	Energizes to open LPCS Injection valve, E21-F005.	E21A-K14 GE HMA
Initiation Relay	Energizes E12A-K70A to provide permissive to start A RHR if power is available. Energizes E12A-K23A to open A RHR Injection valve if rx pressure is low and power is available.	E12A-K9A GE HFA
Initiation Relay	Energizes to start A RHR after 5 second time delay	E12A-K70A# Agastat 145C3217P058
Initiation Relay	Energizes to open A RHR Injection valve, E12-F042A.	E12A-K23A GE HMA
Initiation Relay	Energizes to initiate start of the 0 diesel generator.	E12A-K98A GE HFA

* Injection valves shall be fully OPEN within 40 seconds after receipt of the reactor vessel pressure and ECCS Injection Line Pressure Interlock signal concurrently with power source availability and receipt of an accident initiation signal.
# Time delay relay response time is performed by calibration.

Reference Drawing Numbers:
1E-1-4200ZC, Rev. B
1E-1-4221AD, Rev. U
1E-1-4220AH, Rev. V

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (1 OF 2)
RTT TRIP FUNCTION ITEM NO: 1. & 2.
SYSTEM DESCRIPTION: Low Pressure Core Spray/A RHR(LPCI mode)
TRIP FUNCTION DESCRIPTION: Drywell Pressure -High
T.S. RTT REQUIREMENT (Secs): Less than or equal to 60*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Differential Pressure Switch	Senses drywell pressure and energizes relays E21A-K4 and E21A-K5 on high drywell pressure.	B21-N048A, C Static-O-Ring 12N6-B4-NX-C1A-JJTTX7
Initiation Relay	Energizes Relay E21A-K10 based on Drywell High Pressure & Rx Low Level Logic.	E21A-K4, E21A-K5 GE HFA
Initiation Relay	Energizes E12A-K98A and E12A-K9A to initiate logic to start 0 Diesel Generator and RHR A. Energizes E21A-K12 to provide a permissive to start LPCS pump if power is available. Energizes E21A-K14 to open LPCS Injection valve if rx pressure is low and power is available.	E21A-K10 GE HFA
Initiation Relay	Energizes to interlock the start of LPCS pump.	E21A-K12 GE HMA
Initiation Relay	Energizes to open LPCS Injection valve, E21-F005.	E21A-K14 GE HMA

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (2 OF 2)
RTT TRIP FUNCTION ITEM NO: 1. & 2.
SYSTEM DESCRIPTION: Low Pressure Core Spray/A RHR(LPCI mode)
TRIP FUNCTION DESCRIPTION: Drywell Pressure -High
T.S. RTT REQUIREMENT (Secs): Less than or equal to 60*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL
Initiation Relay	Energizes E12A-K70A to provide permissive to start A RHR pump if power is available. Energizes E12A-K23A to open A RHR Injection valve if rx pressure is low and power is available.	E12A-K9A GE HFA
Initiation Relay	Energizes to start A RHR after 5 second time delay	E12A-K70A# Agastat 145C3217P058
Initiation Relay	Energizes to open A RHR Injection valve, E12-F042A.	E12A-K23A GE HMA
Initiation Relay	Energizes to initiate start of the 0 diesel generator.	E12A-K98A GE HFA

* Injection valves shall be fully OPEN within 40 seconds after receipt of the reactor vessel pressure and ECCS Injection Line Pressure Interlock signal concurrently with power source availability and receipt of an accident initiation signal.
# Time delay relay response time is performed by calibration.

Reference Drawing Numbers:
1E-1-4221AD, Rev. U
1E-1-4220AH, Rev. V

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (1 of 2)
RTT TRIP FUNCTION ITEM NO: 2.
SYSTEM DESCRIPTION: Residual Heat Removal** (RHR) B & C
TRIP FUNCTION DESCRIPTION: Rx Vessel Water Level-Low Low Low, Level 1
T.S. RTT REQUIREMENT (Secs): Less than or equal to 60*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Level Transmitter	Senses level and provides analog signal to MTU.	B21-N407B, D Rosemount 1154
Master Trip Unit (MTU)	Trips at preset value to Energize the output relay.	B21A-N707B, D Rosemount 710DU
MTU Output Relay	Energizes Relay E12A-K7, E12A-K8 on Reactor Water Level below Level - 1.	B21A-K707BX, DX Agastat EGPB
Initiation Relay	Energizes Relays E12A-K9B, E12A-K98B and E12A-K94B based on Drywell High Pressure & Rx Low Level Logic.	E12A-K7 and E12A-K8 GE HFA
Initiation Relay	Energizes E12A-K21 to provide a permissive to start RHR C pump if power is available. Energizes E12A-K25 to open RHR C Injection valve if rx pressure is low and power is available.	E12A-K94B GE HFA
Initiation Relay	Energizes to interlock the start of RHR C pump.	E12A-K21 GE HMA
Initiation Relay	Energizes to open RHR C Injection valve, E12-F042C.	E12A-K25 GE HMA

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (2 of 2)
RTT TRIP FUNCTION ITEM NO: 1. & 2.
SYSTEM DESCRIPTION: Residual Heat Removal** (RHR) B & C
TRIP FUNCTION DESCRIPTION: Rx Vessel Water Level-Low Low Low, Level 1
T.S. RTT REQUIREMENT (Secs): Less than or equal to 60*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Initiation Relay	Energizes E12A-K70B to provide permissive to start RHR B if power is available. Energizes E12A-K23B to open RHR B Injection valve if rx pressure is low and power is available.	E12A-K9B GE HFA
Initiation Relay	Energizes to start RHR B after 5 second time delay	E12A-K70B# Agastat 145C3217P058
Initiation Relay	Energizes to open RHR B Injection valve, E12-F042B.	E12A-K23B GE HMA
Initiation Relay	Energizes to initiate start of the diesel generator A.	E12A-K98B GE HFA

* Injection valves shall be fully OPEN within 40 seconds after receipt of the reactor vessel pressure and ECCS Injection Line Pressure Interlock signal concurrently with power source availability and receipt of an accident initiation signal.
**Low Pressure Coolant Injection (LPCI) mode
Time delay relay response time is performed by calibration.

Reference Drawing Numbers:
1E-1-4200ZD, Rev. B
1E-1-4220AK, Rev. X
1E-1-4220AL, Rev. S

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (1 of 2)
RTT TRIP FUNCTION ITEM NO: 2.
SYSTEM DESCRIPTION: Residual Heat Removal** (RHR) B & C
TRIP FUNCTION DESCRIPTION: Drywell Pressure - High
T.S. RTT REQUIREMENT (Secs): Less than or equal to 60*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Differential Pressure Switch	Senses drywell pressure and energizes relays E12A-K5 and E12A-K6 on high drywell pressure.	B21-N048B, D Static-O-Ring 12N6-B4-NX-C1A-JJTTX7
Initiation Relay	Energizes Relays E12A-K9B, E12A-K98B and E12A-K94B based on Drywell High Pressure & Rx Low Level Logic.	E12A-K5 and E12A-K6 GE HFA
Initiation Relay	Energizes E12A-K21 to provide a permissive to start RHR C pump if power is available. Energizes E12A-K25 to open RHR C Injection valve if rx pressure is low and power is available.	E12A-K94B GE HFA
Initiation Relay	Energizes to interlock the start of RHR C pump.	E12A-K21 GE HMA
Initiation Relay	Energizes to open RHR C Injection valve, E12-F042C.	E12A-K25 GE HMA

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (2 of 2)
RTT TRIP FUNCTION ITEM NO: 2.
SYSTEM DESCRIPTION: Residual Heat Removal** (RHR) B & C
TRIP FUNCTION DESCRIPTION: Drywell Pressure - High
T.S. RTT REQUIREMENT (Secs): Less than or equal to 60*

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Initiation Relay	Energizes E12A-K70B to provide permissive to start RHR B if power is available. Energizes E12A-K23B to open RHR B Injection valve if rx pressure is low and power is available.	E12A-K9B GE HFA
Initiation Relay	Energizes to start RHR B after 5 second time delay	E12A-K70B# Agastat 145C3217P058
Initiation Relay	Energizes to open RHR B Injection valve, E12-F042B.	E12A-K23B GE HMA
Initiation Relay	Energizes to initiate start of the diesel generator A.	E12A-K98B GE HFA

* Injection valves shall be fully OPEN within 40 seconds after receipt of the reactor vessel pressure and ECCS Injection Line Pressure Interlock signal concurrently with power source availability and receipt of an accident initiation signal.
**Low Pressure Coolant Injection (LPCI) mode.
Time delay relay response time is performed by calibration.
Reference Drawing Numbers:
1E-1-4220AK, Rev. X
1E-1-4220AL, Rev. S

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (1 of 2)
RTT TRIP FUNCTION ITEM NO: 4.
SYSTEM DESCRIPTION: High Pressure Core Spray (HPCS)
TRIP FUNCTION DESCRIPTION. Rx Vessel Water Level-Low Low Level 2
T.S. RTT REQUIREMENT (Secs): Less than or equal to 41

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Level Transmitter	Senses level and provides analog signal to MTU.	B21-N406A, & C Rosemount 1154
Master Trip Unit (MTU)	Trips at preset value to Energize the output relay.	B21A-N706A & C, Rosemount 710DU
MTU Output Relay	Energizes Relay E22A-K7, E22A-K8 on Reactor Water Level below Level - 2.	B21A-K706AX & CX Agastat EGPB
Initiation Relay	Energizes Relays E22A-K3 and E22A-K9 based on Drywell High Pressure & Rx Low Level Logic.	E22A-K7 and K8 GE HFA
Initiation Relay	Energizes E22B-K14 to provide a permissive to start HPCS pump if power is available. Energizes to provide start permissive to the B diesel generator	E22A-K3 GE HFA

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3 (2 of 2)
RTT TRIP FUNCTION ITEM NO: 4.
SYSTEM DESCRIPTION: High Pressure Core Spray (HPCS)
TRIP FUNCTION DESCRIPTION: Rx Vessel Water Level-Low Low Level 2
T.S. RTT REQUIREMENT (Secs): Less than or equal to 41

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Initiation Relay	Energizes to provide a permissive to start the HPCS pump if power is available.	E22B-K14 GE HMA
Initiation Relay	Energizes to open HPCS Injection valve E22-F004, if rx pressure is low.	E22A-K9 GE HFA

Reference Drawing Numbers:
1E-1-4200ZE, Rev. A
1E-1-4222AB, Rev. T
1E-1-4223AE, Rev. P
1E-1-4223AH, Rev. V

ATTACHMENT E
LASALLE COUNTY STATION INSTRUMENTATION LOOP COMPONENTS

RTT TRIP FUNCTION TABLE NO: 3.3.3-3
RTT TRIP FUNCTION ITEM NO: 4.
SYSTEM DESCRIPTION: High Pressure Core Spray (HPCS)
TRIP FUNCTION DESCRIPTION: Drywell Pressure - High
T.S. RTT REQUIREMENT (Secs): Less than or equal to 41

DESCRIPTION OF COMPONENT	FUNCTION	DEVICE EPN & MODEL #
Differential Pressure Switch	Senses dryweli pressure and energizes relays E22A-K5 and E22A-K6 on high drywell pressure.	B21-N047A & C, Static-O-Ring 12N6-B4-NX-C1A-JJTTX7
Initiation Relay	Energizes Relays E22A-K3 and E22A-K9 based on Drywell High Pressure & Rx Low Level Logic.	E22A-K5 and E22A-K6 GE HFA
Initiation Relay	Energizes E22B-K14 to provide a permissive to start HPCS pump if power is available. Energizes to provide start permissive to the B diesel generator	E22A-K3 GE HFA
Initiation Relay	Energizes to provide a permissive to start the HPCS pump if power is available.	E22B-K14 GE HMA
Initiation Relay	Energizes to open HPCS Injection valve E22-F004, if rx pressure is low.	E22A-K9 GE HFA

Reference Drawing Numbers:
1E-1-4222AB, Rev. T
1E-1-4223AE, Rev. P
1E-1-4223AH, Rev. V