ATTACHMENT I
PROPOSED TECHNICAL SPECIFICATION AMENDMENTS

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The accident monitoring instrumentation channels shown in Table 3.3-10 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 3.3-10, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With the number of OPERABLE accident monitoring instrumentation channels ~~except the unit vent high-high range area monitor, the steam relief valve exhaust radiation monitor, the containment atmosphere high range radiation monitor, and the reactor coolant radiation level~~ less than the Minimum Channels OPERABLE requirements of Table 3.3-10, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

~~c. With the number of OPERABLE Channels for the unit vent high-high range area monitor, or the steam relief valve exhaust radiation monitor, or the containment atmosphere high range radiation monitor, or the reactor coolant radiation level less than required by the Minimum Channels OPERABLE requirements, initiate an alternate method of monitoring the appropriate parameter(s) within 72 hours, and either restore the inoperable channel(s) to OPERABLE status within 7 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days that provides actions taken, cause of the inoperability, and the plans and schedule for restoring the channels to OPERABLE status.~~

C. ~~A~~ The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.6 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 3.3-10

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
~~1. Containment Pressure~~	~~2~~	~~1~~
1. X Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)	2	1
2. X Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)	2	1
3. X Reactor Coolant Pressure - Wide Range	2	1
4. X Pressurizer Water Level	2	1
5. X Steam Line Pressure	2/steam generator	1/steam generator
6. X Steam Generator Water Level - Narrow Range	2/steam generator	1/steam generator
7. X Refueling Water Storage Tank Water Level	2	1
~~9. Auxiliary Feedwater Flow Rate~~	~~2/steam generator~~	~~1/steam generator~~
8 ~~13~~ X Reactor Coolant System Subcooling Margin Monitor	2 X	1
~~11. PORV Position Indicator[&]~~	~~2/Valve~~	~~1/Valve~~
~~12. PORV Block Valve Position Indicator[&&]~~	~~2/Valve~~	~~1/Valve~~
~~13. Pressurizer Safety Valve Position Indicator~~	~~1/Valve~~	~~1/Valve~~
~~14. Containment Sump Water Level (Wide Range)~~	~~2~~	~~1~~

TABLE 3.3-10 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
9. ~~15.~~ In Core Thermocouples	4/core quadrant	2/core quadrant
~~16. Unit Vent - High-High Range Area Monitor (EMF-54)~~	~~N.A.~~	~~1~~
~~17. Steam Relief Valve Exhaust Radiation Monitor (1EMF-26, 27, 28 or 29 and 2EMF-10, 11, 12 or 13)~~	~~N.A.~~	~~1~~
~~18. Containment Area - High Range Radiation Monitor (EMF-53 A or B)~~	~~N.A.~~	~~1~~
~~19. Reactor Vessel Water Level~~	~~2~~	~~1~~
~~20. Reactor Coolant Radiation Level (EMF-48)~~	~~N.A.~~	~~1~~

~~TABLE NOTATIONS~~

~~* Not applicable if the associated block valve is in the closed position.~~

~~** Not applicable if the associated block valve is in the closed position and power is removed.~~

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
~~1. Containment Pressure~~	~~M~~	~~R~~
1. Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)	M	R
2. Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)	M	R
3. Reactor Coolant Pressure - Wide Range	M	R
4. Pressurizer Water Level	M	R
5. Steam Line Pressure	M	R
6. Steam Generator Water Level - Narrow Range	M	R
7. Refueling Water Storage Tank Water Level	M	R
~~9. Auxiliary Feedwater Flow Rate~~	~~M~~	~~R~~
8. Reactor Coolant System Subcooling Margin Monitor	M	R
~~11. PORV Position Indicator~~	~~M~~	~~R***~~
~~12. PORV Block Valve Position Indicator~~	~~M~~	~~R***~~
~~13. Pressurizer Safety Valve Position Indicator~~	~~M~~	~~R~~
~~14. Containment Sump Water Level (Wide Range)~~	~~M~~	~~R~~

TABLE 4.3-7 (Continued)

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT (Continued)	CHANNEL CHECK	CHANNEL CALIBRATION
9. In Core Thermocouples	M	R
~~16. Unit Vent - High-High Range Area Monitor (EMF-54)~~	~~M~~	~~R~~
~~17. Steam Relief Valve Exhaust Radiation Monitor (1 EMF 26, 27, 28 and 29 and 2 EMF-10, 11, 12 and 13)~~	~~M~~	~~R~~
~~18. Containment Area - High Range Radiation Monitor - (EMF-53 A&B)~~	~~M~~	~~R*,**~~
~~19. Reactor Vessel Water Level~~	~~M~~	~~R~~
~~20. Reactor Coolant Radiation Level (EMF-48)~~	~~M~~	~~R~~

~~*CHANNEL CALIBRATION may consist of an electronic calibration of the channel, not including the detector, for range decades above 10R/h and a one point calibration check of the detector below 10R/h with an installed or portable gamma source.~~

~~**This surveillance need not be performed until prior to entering HOT STANDBY following the Unit 1 first refueling. (This applies to Unit 1 only.)~~

CATAWBA - UNITS 1 & 2

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Amendment No. (Unit 1)
Amendment No. (Unit 2)

REMOTE SHUTDOWN SYSTEM (Continued)

control and power circuits and transfer switches necessary to eliminate effects of the fire and allow operation of instrumentation, control and power circuits required to achieve and maintain a safe shutdown condition are independent of areas where a fire could damage systems normally used to shutdown the reactor. This capability is consistent with General Design Criterion 3 and Appendix R to 10 CFR Part 50.

3/4.3.3.6 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 following an accident. ~~This capability is consistent with the recommendations of~~ Regulatory Guide 1.97, Revision ~~X~~ 2, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," ~~May 1983 and NUREG 0737, "Clarification of TMI Action Plan Requirements," November 1980.~~ and Environs

3/4.3.3.7 CHLORINE DETECTION SYSTEMS

The OPERABILITY of the Chlorine Detection Systems ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chlorine release. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.95, Revision 1, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," January 1977.

3/4.3.3.8 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the detection instrumentation ensures that both adequate warning capability is available for prompt detection of fires and that Fire Suppression Systems, that are actuated by fire detectors, will discharge extinguishing agents in a timely manner. Prompt detection and suppression of fires will reduce the potential for damage to safety-related equipment and is an integral element in the overall facility Fire Protection Program.

Fire detectors that are used to actuate Fire Suppression Systems represent a more critically important component of a plant's Fire Protection Program than detectors that are installed solely for early fire warning and notification. Consequently, the minimum number of OPERABLE fire detectors must be greater.

The loss of detection capability for Fire Suppression Systems, actuated by fire detectors, represents a significant degradation of fire protection for

The instrumentation included in this specification are those instruments provided to monitor key Variables, designated as Type A Variables, following the guidance for classification contained in

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.6 The accident monitoring instrumentation channels shown in Table 3.3-10 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels shown in Table 3.3-10, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels OPERABLE requirements of Table 3.3-10, 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

4.3.3.6 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.

2. Reactor Coolant Temperature - T_{COLD} (Wide Range) 2. 1

TABLE 3.3-10
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
~~1. Containment Pressure~~	~~2~~	~~1~~
1. X Reactor Coolant Temperature - T_{HOT} ~~and T_{COLD}~~ (Wide Range)	2	1
3. Reactor Coolant Pressure - Wide Range	2	1
4. Pressurizer Water Level	2	1
5. Steam Line Pressure	2/steam generator	1/steam generator
6. Steam Generator Water Level - Narrow Range	2/steam generator	1/steam generator
7. Refueling Water Storage Tank Water Level	2	1
~~8. Auxiliary Feedwater Flow Rate~~	~~2/steam generator~~	~~1/steam generator~~
8. X Reactor Coolant System Subcooling Margin Monitor	2***	1
~~10. PORV Position Indicator*~~	~~2/valve~~	~~1/valve~~
~~11. PORV Block Valve Position Indicator**~~	~~1/valve~~	~~1/valve~~
~~12. Safety Valve Position Indicator~~	~~2/valve~~	~~1/valve~~
~~13. Containment Water Level (Wide Range)~~	~~2~~	~~1~~
9. X In Core Thermocouples	4/core quadrant	2/core quadrant
~~15. Unit Vent - High Range Noble Gas Monitor (High-High Range - EMF-36)~~	~~1~~	~~1~~
~~16. Steam Relief - High Range Monitor (Unit 1 - EMF-24, 25, 26, 27) (Unit 2 - EMF-10, 11, 12, 13)~~	~~1/steam line~~	~~1/steam line~~
~~17. Containment Atmosphere - High Range Monitor (EMF-51a or 51b)~~	~~1~~	~~1~~
~~18. Reactor Vessel Level Instrumentation****~~		
~~a. Wide Range~~	~~2~~	~~1~~
~~b. Narrow Range~~	~~2~~	~~1~~

~~*Not applicable if the associated block valve is in the closed position.~~
~~**Not applicable if the associated block valve is in the closed position and power is removed.~~
***Only one channel per unit is required until the end of the first refueling outage following 1/86 for each unit.
~~****Not applicable until the beginning of Cycle 4 for Unit 1 and Cycle 3 for Unit 2.~~

Amendment No. 21 (Unit 2)
Amendment No. 40 (Unit 1)

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
~~1. Containment Pressure~~	~~M~~	~~R~~
1.~~X~~ Reactor Coolant Temperature - T_{HOT} ~~and T_{COLD}~~ (Wide Range)	M	R
3. Reactor Coolant Pressure - Wide Range	M	R
4. Pressurizer Water Level	M	R
5. Steam Line Pressure	M	R
6. Steam Generator Water Level - Narrow Range	M	R
7. Refueling Water Storage Tank Water Level	M	R
~~8. Auxiliary Feedwater Flow Rate~~	~~M~~	~~R~~
8.~~X~~ Reactor Coolant System Subcooling Margin Monitor	M	R
~~10. PORV Position Indicator~~	~~M~~	~~R~~
~~11. PORV Block Valve Position Indicator~~	~~M~~	~~R~~
~~12. Safety Valve Position Indicator~~	~~M~~	~~R~~
~~13. Containment Water Level (Wide Range)~~	~~M~~	~~R~~
9.~~X~~ In Core Thermocouples	M	R
~~15. Unit Vent - High Range Noble Gas Monitor (High-High Range - EMF-36)~~	~~M~~	~~R~~
~~16. Steam Relief - High Range Monitor (Unit 1 - EMF-24, 25, 26, 27) (Unit 2 - EMF-10, 11, 12, 13)~~	~~M~~	~~R~~
~~17. Containment Atmosphere - High Range Monitor (EMF-51a or 51b)~~	~~M~~	~~R~~
~~18. Reactor Vessel Level Instrumentation~~		
~~a. Wide Range~~	~~M~~	~~R~~
~~b. Narrow Range~~	~~M~~	~~R~~

2. Reactor Coolant Temperature - T_{COLD} (Wide Range) M R

MOVABLE INCORE DETECTORS (Continued)

of the core. The OPERABILITY of this system is demonstrated by irradiating each detector used and determining the acceptability of its voltage curve.

For the purpose of measuring $F_Q(Z)$ or $F^N_{\Delta H}$ a full incore flux map is used. Quarter-core flux maps, as defined in WCAP-8648, June 1976, may be used in recalibration of the Excore Neutron Flux Detection System, and full incore flux maps or symmetric incore thimbles may be used for monitoring the QUADRANT POWER TILT RATIO when one Power Range channel is inoperable.

3/4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility to determine if plant shutdown is required pursuant to Appendix A of 10 CFR Part 100. The instrumentation is consistent with the recommendations of Regulatory Guide 1.12, "Instrumentation for Earthquakes," April 1974.

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data are available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

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 Criterion 19 of 10 CFR 50.

3/4.3.3.6 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 following an accident. ~~This capability is consistent with the recommendations of~~ Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power 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."~~ Revision 2, and Environs

The instrumentation included in this specification are those instruments provided to monitor Key Variables, designated as Type A Variables, following the guidance for classification contained in

DELETE

The Reactor Vessel Level Instrumentation System (RVLIS) is designed to monitor the water level in the reactor vessel, or the void content under forced circulation conditions, during postulated accident conditions. The RVLIS was installed as a part of the Inadequate Core Cooling Instrumentation (ICCI) as required by NUREG-0737. The system consists of three level channels which indicate on the Inadequate Core Cooling Monitor. These channels are the upper range (64 - 120%), the lower range (0 - 70%), and the dynamic head (D/P) range (0 - 120%). The upper range and lower range channels are actually level measurements over a specific height of the reactor vessel with no reactor coolant pumps running. These channels indicate "invalid" with one or more reactor coolant pumps operating. The dynamic head channel indicates a differential pressure across the reactor core when the reactor coolant pumps are operating and indicates "invalid" with no pumps running.

The two channels that are required to be operable by Technical Specifications are the lower range and the dynamic head range. The upper range is not required because it does not serve to monitor or mitigate an Inadequate Core Cooling Incident. The upper range channel would be used to assist operators in venting noncondensible gases from the upper head of the reactor vessel; a level indication on the upper range channel would indicate that the core is covered, thus any inadequate core cooling event has been terminated.

ATTACHMENT II
DISCUSSION AND ANALYSIS OF
NO SIGNIFICANT HAZARDS CONSIDERATIONS

DISCUSSION AND ANALYSIS OF NO SIGNIFICANT HAZARDS CONSIDERATION

The proposed amendment to Technical Specification 3.3.3.6 and Tables 4.3-7 and 3.3-10, Accident Monitoring Instrumentation, would revise the Technical Specifications to reflect the analysis performed in accordance with Regulatory Guide 1.97, Revision 2.

On December 17, 1982, Generic Letter No. 82-33 was issued by D. G. Eisenhut, Director of the Division of Licensing, Nuclear Reactor Regulation, to all licensees of operating reactors, applicants for operating licenses and holders of construction permits. This letter included additional clarification regarding Regulatory Guide 1.97, Revision 2 relating to the requirements for emergency response capability. These requirements have been published as Supplement No. 1 to NUREG-0737, "TMI Action Plan Requirements".

Duke Power provided responses to the Regulatory Guide 1.97 portion of the generic letter for the Catawba Nuclear Station, Units 1 and 2, on September 26, 1983. Additional information was submitted on October 22, 1985 and March 25, 1986.

Responses for the McGuire Nuclear Station, Units 1 and 2, were provided on March 24, 1984, August 30, 1985, April 14, 1986, May 22, 1987 and August 17, 1987.

The NRC Staff responded to the Catawba Study in Supplements 4 and 5 to the Catawba SER (NUREG-0954). Response to the McGuire submittals was provided in a letter dated February 12, 1986, which transmitted an Interim Technical Report.

Although there is still one outstanding issue open on Catawba's Regulatory Guide 1.97 review (i.e., qualified accumulator discharge instrumentation) the proposed Technical Specification changes are appropriate. The accumulator tank level or pressure are not referenced in any emergency procedure covering design basis events which may cause a harsh environment. No operator actions in these procedures are based on accumulator indications. Therefore, this instrumentation would not meet the requirements for inclusion in the Accident Monitoring Instrumentation tables.

A separate issue is still outstanding on the McGuire review dealing with the need for qualified wide range steam generator level instrumentation. For the reasons advanced in the August 17, 1987 letter from Duke to the NRC, the wide range instrumentation has not been proposed to be added to the McGuire Technical Specification tables. The narrow range instrumentation is currently included in the tables and will be retained. It is this instrumentation that is relied upon in the McGuire emergency procedures for accident mitigation with the one exception as noted in the August 17, 1987 letter.

Regulatory Guide 1.97, Revision 2 divides the post-accident monitoring instruments into five variables (A, B, C, D and E) providing a graded approach to requirements depending on the importance to safety of the measurement of a specific variable. Type A Variables are those variables to be monitored that provide the primary information required to permit the control room operator to take specific manually controlled actions for which no automatic control is provided and that are required for safety systems to accomplish their safety functions for design basis accident events. Primary information is information

that is essential for the direct accomplishment of the specified safety functions; it does not include those variables that are associated with contingency actions that may also be identified in written procedures. Types B, C, D, and E are variables for following the course of an accident and are to be used (1) to determine if the plant is responding to the safety measures in operation and (2) to inform the operator of the necessity for unplanned actions to mitigate the consequences of an accident. The five classifications are not mutually exclusive in that a given variable (or instrument) may be applicable to one or more types, as well as for normal power plant operation or for automatically initiated safety actions. A variable included as Type B, C, D, or E does not preclude that variable from also being included as Type A. Where such multiple use occurs, it is essential that instrumentation be capable of meeting the more stringent requirements.

On February 6, 1987 the NRC published its Interim Policy Statement on Technical Specification Improvements for Nuclear Power Reactors (Federal Register Notice 52 FR 3788). Included in this Interim Policy Statement were three Technical Specification split criteria to be used to evaluate the need to retain requirements in the Technical Specifications. Application of the criteria to the Accident Monitoring Instrumentation Specification by each of the Owner's Groups has shown that only Criteria 3 would be applicable. Criteria 3 directs that an item to be retained in the Technical Specifications would be:

> A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a Design Basis Accident or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The Type A Variables proposed to be included in the Accident Monitoring Instrumentation Tables would be the only instrumentation captured by the application of the split criteria. Type B, C, D and E Variables would not meet any of the split criteria and therefore should not be required to be in the Technical Specifications.

Based on the above discussion and the guidance contained in Regulatory Guide 1.97, Revision 2 it is recommended that the instrumentation identified as being Type B, C, D or E be relocated out of the post-accident monitoring instrumentation specification. Technical Specification 3.3.3.6 and Tables 3.3-10 and 4.3-7 should be revised to include only Type A Variables consistent with the recommendations contained in Regulatory Guide 1.97, Revision 2 and the appropriate correspondence between Duke and the NRC Staff.

The appropriate Bases section is to be revised to reference Regulatory Guide 1.97, Revision 2 and will specify that the Technical Specifications on post-accident monitoring instrumentation address only Type A Variables as defined in the Regulatory Guide.

The requirements for relocated instruments will be placed in the FSAR. The applicable Limiting Conditions for Operation, Action Statements and Surveillance Requirements will also be relocated to the FSAR. This will ensure that there will be adequate controls maintained on the relocated instrumentation. Please note that a correction is being made to item 9. on Catawba's Table 3.3-10 and

item 8. on McGuire's Table 3.3-10 concerning the Total Number of Channels for Auxiliary Feedwater Flow Rate. This change is consistent with the Regulatory Guide 1.97 review.

10 CFR 50.92 (c) states that "a proposed amendment... involves no significant hazards considerations, if operation of the facility in accordance with the proposed amendment would not:

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

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

(3) Involve a significant reduction in a margin of safety".

This amendment request would not significantly increase the probability or consequences of an accident previously evaluated.

In the discussion section of the NRC's Interim Policy Statement for Technical Specification Improvements it was stated that "the Commission recognizes the advantages of improved Technical Specifications". Mainly because "it will result in Technical Specifications that focus licensee's and the plant operator's attention on those plant conditions most important to safety...". The proposed changes to the Accident Monitoring Instrumentation Tables would retain those instruments which would meet at least one of the three proposed Technical Specification split criteria. It is these instruments (Type A Variables) which are most important to safety. The Type A variables are those instruments identified via the Regulatory Guide 1.97, revision 2 review and are those instruments identified which are to be retained in the Technical Specifications. Instrumentation to be deleted from the Accident Monitoring Instrumentation tables will be relocated into the FSARs for McGuire and Catawba. Adequate control via the requirements of 10 CFR 50.59 will ensure that this instrumentation will be maintained operable.

The proposed changes will not create the possibility of a new or different kind of accident since the requested changes only apply to post-accident instrumentation. No hardware changes will be implemented and the station will not be operated in any different type of configuration than currently allowed. Any modifications to instrumentation or their applicable procedures which would no longer be contained in the Accident Monitoring Instrumentation Tables would be reviewed in accordance with the requirements of 10 CFR 50.59. This review will ensure that any proposed changes to these instruments or the applicable procedures will not involve an unreviewed safety question.

The proposed amendment will not involve a significant reduction in a margin of safety. With this amendment several items will be removed from the affected Technical Specification Tables and relocated to the FSAR. The instrumentation to be relocated has not been identified as Type A Variables per the Regulatory Guide 1.97 review. In accordance with the intent and guidance of the NRC's Interim Policy Statement it is not necessary for these items to be retained in the Technical Specifications for Post-Accident Monitoring Instrumentation. The

instrumentation to be retained is identified as Type A Variables. It is this instrumentation that is deemed to be of immediate importance for post-accident monitoring. This instrumentation meets all the Regulatory Guide 1.97 requirements set forth for Type A Variable instrumentation with exceptions as noted in our referenced responses.

The outcome of the proposed change would not significantly decrease the margin of safety since the Technical Specifications would now contain only those instruments identified as Type A Variables. More emphasis will be placed on maintaining the operability of these instruments. Instrumentation to be deleted from the Technical Specifications will still be maintained in accordance with the existing applicable procedures. Any changes to the procedures or the instrumentation relocated to the FSAR would require an evaluation in accordance with the requirements contained in 10 CFR 50.59. This review would ensure that any changes would not involve an unreviewed safety question. Additionally, a multidisciplinary review by the Nuclear Safety Review Board per Technical Specification 6.5.2.8c. is required of all 50.59 changes. These controls are adequate for assuring these instruments are maintained operable.

Based upon the above discussion, it is concluded that this amendment does not involve significant hazards considerations.

ATTACHMENT III
PROPOSED ADDITIONS TO
FSAR CHAPTER 16

16.7 INSTRUMENTATION

16.7-1 ACCIDENT MONITORING INSTRUMENTATION

~~LIMITING CONDITION FOR OPERATION~~ COMMITMENT

~~3.3.3.6~~ The accident monitoring instrumentation channels shown in Table ~~3.3-10~~ 16.7-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

REMEDIAL ACTION:

a. With the number of OPERABLE accident monitoring instrumentation channels less than the Total Number of Channels shown in Table ~~3.3-10,~~ 16.7-1 restore the inoperable channel(s) to OPERABLE status within 7 days, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With the number of OPERABLE accident monitoring instrumentation channels except the unit vent-high-high range area monitor, the steam relief valve exhaust radiation monitor, the containment atmosphere-high range radiation monitor, and the reactor coolant radiation level less than the Minimum Channels OPERABLE requirements of Table ~~3.3-10,~~ 16.7-1 restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With the number of OPERABLE Channels for the unit vent-high-high range area monitor, or the steam relief valve exhaust radiation monitor, or the containment atmosphere-high range radiation monitor, or the reactor coolant radiation level less than required by the Minimum Channels OPERABLE requirements, initiate an alternate method of monitoring the appropriate parameter(s) within 72 hours, and either restore the inoperable channel(s) to OPERABLE status within 7 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days that provides actions taken, cause of the inoperability, and the plans and schedule for restoring the channels to OPERABLE status. Technical

~~d. The provisions of Specification 3.0.4 are not applicable.~~

TESTING
~~SURVEILLANCE~~ REQUIREMENTS

~~4.3.3.6~~ 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.~~ 16.7-2

16.7-1

TABLE ~~3.3-10~~

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
1. Containment Pressure	2	1
~~2. Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)~~	~~2~~	~~1~~
~~3. Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)~~	~~2~~	~~1~~
~~4. Reactor Coolant Pressure - Wide Range~~	~~2~~	~~1~~
~~5. Pressurizer Water Level~~	~~2~~	~~1~~
~~6. Steam Line Pressure~~	~~2/steam generator~~	~~1/steam generator~~
~~7. Steam Generator Water Level - Narrow Range~~	~~2/steam generator~~	~~1/steam generator~~
~~8. Refueling Water Storage Tank Water Level~~	~~2~~	~~1~~
2. ~~X~~ Auxiliary Feedwater Flow Rate	1 ~~X~~/steam generator	1/steam generator
~~10. Reactor Coolant System Subcooling Margin Monitor~~	~~1~~	~~1~~
3. ~~X~~ PORV Position Indicator*	2/Valve	1/Valve
4. ~~X~~ PORV Block Valve Position Indicator**	2/Valve	1/Valve
5. ~~X~~ Pressurizer Safety Valve Position Indicator	1/Valve	1/Valve
6. ~~X~~ Containment Sump Water Level (Wide Range)	2	1

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TABLE ~~3.3-10~~ (Continued)

ACCIDENT MONITORING INSTRUMENTATION

	INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
~~6.~~	~~In Core Thermocouples~~	~~4/core quadrant~~	~~2/core quadrant~~
7.	Unit Vent - High-High Range Area Monitor (EMF-54)	N.A.	1
8.	Steam Relief Valve Exhaust Radiation Monitor (1EMF-26, 27, 28 or 29 and 2EMF-10, 11, 12 or 13)	N.A.	1
9.	Containment Area - High Range Radiation Monitor (EMF-53 A or B)	N.A.	1
10.	Reactor Vessel Water Level	2	1
11.	Reactor Coolant Radiation Level (EMF-48)	N.A.	1

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TABLE NOTATIONS

* Not applicable if the associated block valve is in the closed position.

** Not applicable if the associated block valve is in the closed position and power is removed.

16.7-2

TABLE ~~4.3-7~~

TESTING

ACCIDENT MONITORING INSTRUMENTATION ~~SURVEILLANCE~~ REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. Containment Pressure	M	R
~~2. Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)~~	~~M~~	~~R~~
~~3. Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)~~	~~M~~	~~R~~
~~4. Reactor Coolant Pressure - Wide Range~~	~~M~~	~~R~~
~~5. Pressurizer Water Level~~	~~M~~	~~R~~
~~6. Steam Line Pressure~~	~~M~~	~~R~~
~~7. Steam Generator Water Level - Narrow Range~~	~~M~~	~~R~~
~~8. Refueling Water Storage Tank Water Level~~	~~M~~	~~R~~
2. ~~X~~ Auxiliary Feedwater Flow Rate	M	R
~~10. Reactor Coolant System Subcooling Margin Monitor~~	~~M~~	~~R~~
3. ~~X~~ PORV Position Indicator	M	R**
4. ~~X~~ PORV Block Valve Position Indicator	M	R**
5. ~~X~~ Pressurizer Safety Valve Position Indicator	M	R
6. ~~X~~ Containment Sump Water Level (Wide Range)	M	R

16.7-2

TABLE ~~4.3-7~~ (Continued)

TESTING

ACCIDENT MONITORING INSTRUMENTATION ~~SURVEILLANCE~~ REQUIREMENTS

	IN[illegible]ed)	CHANNEL CHECK	CHANNEL CALIBRATION
~~15.~~	~~In[illegible]nocouples~~	~~M~~	~~R~~
7. ~~16.~~	Unit Vent - High-High Range Area Monitor (EMF-54)	M	R
8. ~~17.~~	Steam Relief Valve Exhaust Radiation Monitor (1 EMF-26, 27, 28 and 29 and 2 EMF-10, 11, 12 and 13)	M	R
9. ~~18.~~	Containment Area - High Range Radiation Monitor (EMF-53 ARB)	M	R*,**
10. ~~19.~~	Reactor Vessel Water Level	M	R
11. ~~20.~~	Reactor Coolant Radiation Level (EMF-48)	M	R

*CHANNEL CALIBRATION may consist of an electronic calibration of the channel, not including the detector, for range decades above 10R/h and a one point calibration check of the detector below 10R/h with an installed or portable gamma source.

**This surveillance need not be performed until prior to entering HOT STANDBY following the Unit 1 first refueling. (This applies to Unit 1 only.)

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16.7 INSTRUMENTATION

16.7-1 ACCIDENT MONITORING INSTRUMENTATION

~~LIMITING CONDITION FOR OPERATION~~ COMMITMENT

~~3.3.3.6~~ The accident monitoring instrumentation channels shown in Table 16.7-1 ~~3.3-10~~ shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

REMEDIAL ACTION:

a. With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels shown in Table 16.7-1 ~~3.3-10,~~ restore the inoperable channel(s) to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels OPERABLE requirements of Table 16.7-1 ~~3.3-10,~~ 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.~~

TESTING
~~SURVEILLANCE~~ REQUIREMENTS

~~4.3.3.6~~ 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.~~ 16.7-2

TABLE ~~3.3-10~~

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
1. Containment Pressure	2	1
~~2. Reactor Coolant Temperature - T_{HOT} and T_{COLD} (Wide Range)~~	~~2~~	~~1~~
~~3. Reactor Coolant Pressure - Wide Range~~	~~2~~	~~1~~
~~4. Pressurizer Water Level~~	~~2~~	~~1~~
~~5. Steam Line Pressure~~	~~2/steam generator~~	~~1/steam generator~~
~~6. Steam Generator Water Level - Narrow Range~~	~~2/steam generator~~	~~1/steam generator~~
~~7. Refueling Water Storage Tank Water Level~~	~~2~~	~~1~~
2. ~~11~~ Auxiliary Feedwater Flow Rate	1 ~~2~~/steam generator	1/steam generator
~~9. Reactor Coolant System Subcooling Margin Monitor~~	~~2***~~	~~1~~
3. ~~10~~ PORV Position Indicator*	2/valve	1/valve
4. ~~11~~ PORV Block Valve Position Indicator**	1/valve	1/valve
5. ~~12~~ Safety Valve Position Indicator	2/valve	1/valve
6. ~~13~~ Containment Water Level (Wide Range)	2	1
~~14. In-Core Thermocouples~~	~~4/core quadrant~~	~~2/core quadrant~~
7. ~~15~~ Unit Vent - High Range Noble Gas Monitor (High-High Range - EMF-36)	1	1
8. ~~16~~ Steam Relief - High Range Monitor (Unit 1 - EMF-24, 25, 26, 27) (Unit 2 - EMF-10, 11, 12, 13)	1/steam line	1/steam line
9. ~~17~~ Containment Atmosphere - High Range Monitor (EMF-51a or 51b)	1	1
10. ~~18~~ Reactor Vessel Level Instrumentation****		
a. ~~Wide~~ Upper Range — Dynamic Head (D/P)	2	1
b. ~~Narrow~~ Lower Range	2	1

*Not applicable if the associated block valve is in the closed position.

**Not applicable if the associated block valve is in the closed position and power is removed.

~~***Only one channel per unit is required until the end of the first refueling outage following 1/86 for each unit.~~

****Not applicable until the beginning of Cycle 4 for Unit 1 and Cycle 3 for Unit 2.

REQUIRE UNITS 1 and 2 3/4 3-56 Amendment No. 21 (Unit 1) Amendment No. 10 (Unit 2)

16.7-2

TABLE ~~4.3-7~~

ACCIDENT MONITORING INSTRUMENTATION ~~SURVEILLANCE~~ TESTING REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. Containment Pressure	M	R
~~2. Reactor Coolant Temperature - T_{HOT} and T_{COLD} (Wide Range)~~	~~M~~	~~R~~
~~3. Reactor Coolant Pressure - Wide Range~~	~~M~~	~~R~~
~~4. Pressurizer Water Level~~	~~M~~	~~R~~
~~5. Steam Line Pressure~~	~~M~~	~~R~~
~~6. Steam Generator Water Level - Narrow Range~~	~~M~~	~~R~~
~~7. Refueling Water Storage Tank Water Level~~	~~M~~	~~R~~
2 ~~8~~. Auxiliary Feedwater Flow Rate	M	R
~~9. Reactor Coolant System Subcooling Margin Monitor~~	~~M~~	~~R~~
3. ~~10~~ PORV Position Indicator	M	R
4. ~~11~~ PORV Block Valve Position Indicator	M	R
5. ~~12~~ Safety Valve Position Indicator	M	R
6. ~~13~~ Containment Water Level (Wide Range)	M	R
~~14. In Core Thermocouples~~	~~M~~	~~R~~
7. ~~15~~ Unit Vent - High Range Noble Gas Monitor (High-High Range - EMF-36)	M	R
8. ~~16~~ Steam Relief - High Range Monitor (Unit 1 - EMF-24, 25, 26, 27) (Unit 2 - EMF-10, 11, 12, 13)	M	R
9. ~~17~~ Containment Atmosphere - High Range Monitor (EMF-51a or 51b)	M	R
10 ~~18~~. Reactor Vessel Level Instrumentation		
a. ~~Wide~~ Range	M	R
b. ~~Narrow~~ Range — Dynamic Head (D/P)	M	R

Lower

McGUIRE - UNITS 1 and 2 — 3/4 3-57 — Amendment No. 21 (Unit 2) Amendment No. 40 (Unit 1)