

September 3, 1986

Docket No. 50-410

Mr. C. V. Mangan, Senior Vice President  
Niagara Mohawk Power Corporation  
300 Erie Boulevard West  
Syracuse, New York 13202

Dear Mr. Mangan:

Subject: Response to July 16, 1986, Letter Concerning Comments  
on the Nine Mile Point Unit 2 SER, SSER-1 and SSER -2

On July 16, 1986, you submitted a letter containing comments to the Nine Mile Point Unit 2 (NMP-2) SER (February 1985) and Supplements 1 and 2 (June and November 1985). In light of Niagara Mohawk's current status, the staff has provided extensive resources in order to respond to your letter expeditiously. Enclosures 1 through 5 are staff responses to most of these comments. We plan to address the balance of these comments in the near future.

We have noted where the SER will be revised to reflect your comments. The staff has agreed to make changes even in the areas where the SER is correct but the comment may add clarification. In a number of places however, the references provided in your July 16, 1986, letter did not support the change you suggested or the comment is unclear. These are noted and require a response from Niagara Mohawk.

For some comments, the change is unacceptable and the issue is noted as an open issue which needs to be resolved.

Drafts of the enclosures were provided to Mr. Don Hill of your staff to assist Niagara Mohawk in providing responses to open or unclear items. The enclosed responses may have been revised since that draft and it is therefore appropriate that you respond to the enclosures to this letter, not the drafts.

Sincerely,

/S/

Mary F. Haughey, Project Manager  
BWR Project Directorate No. 3  
Division of BWR Licensing

Enclosures:  
As stated

cc: see next page

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BWD-3:DBL  
MHaughey/hmc  
9/3/86

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EHylton  
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9/3/86

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Mr. C. V. Mangan  
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station  
Unit 2

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11

Item 138

SER page 13-23, last paragraph, second to last sentence - It refers to figure 8, and it should be figure 1.

NRC Response

We agree. The SER will be revised.

Item 152

SER page 13-20, fifth paragraph says the current NMP-1 TSC is an interim facility. Remove that sentence in its entirety. The new TSC is described in the Emergency Plan.

NRC Response

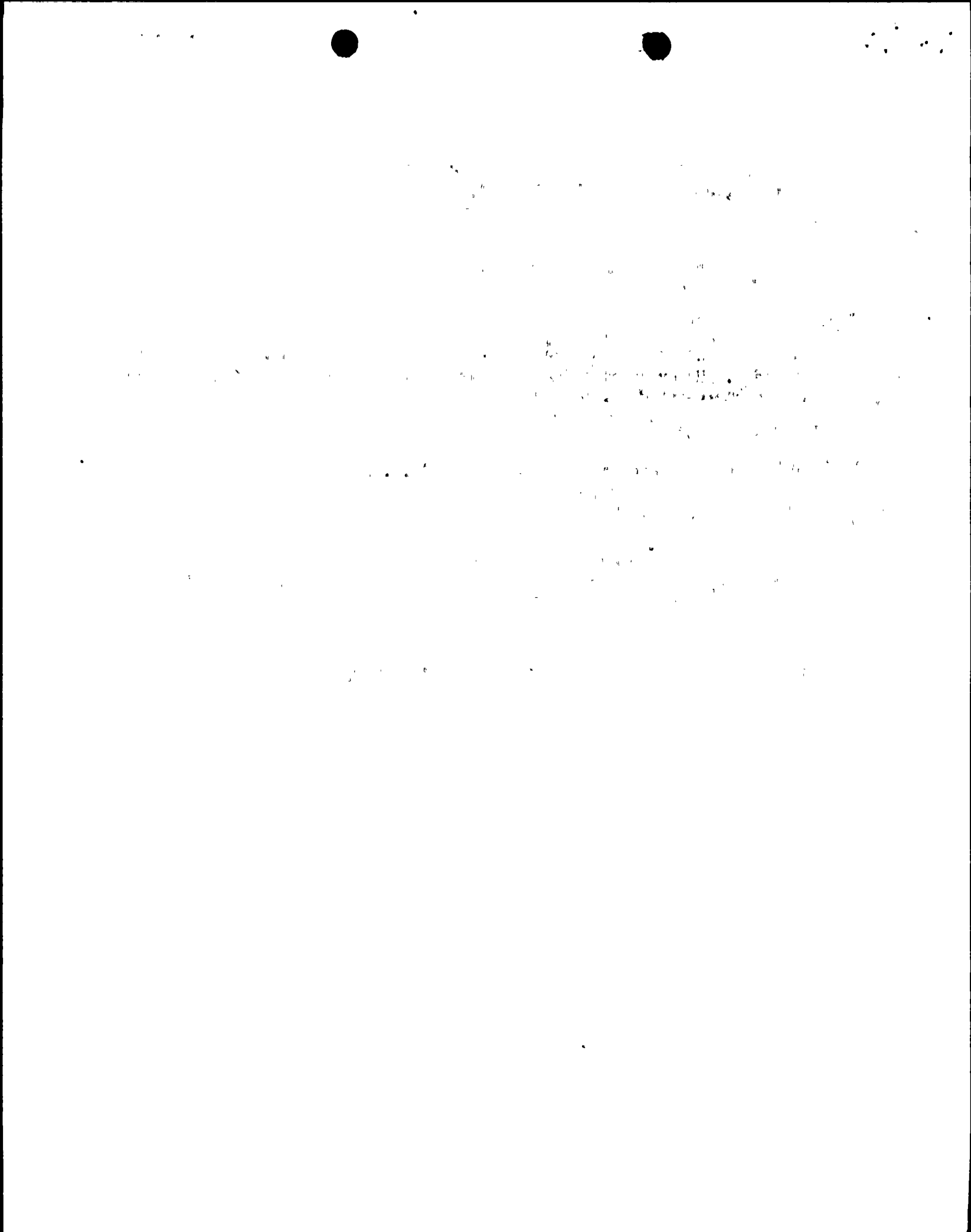
This item is updated in SSER 3, Section 13.3.2.8.

Item 153

SER page 13-21, second paragraph says the Energy Information Center is designated as the interim Emergency Operations Facility. Remove that sentence. Refer to the Emergency Plan.

NRC Response

This item is updated in SSER 3, Section 13.3.2.8.



RSB RESPONSE TO NMPC COMMENTS ON THE NMP-2 SER AND SSERS  
SER COMMENTS

SECTION 1

NMPC Comment

3. Page 5-18, Sixth paragraph, first line says, "Isolation between the reactor coolant system and RCIC is provided by two check valves." The word "testable" should be added (FSAR page 5.4-19, Rev. 0) between the words "two" and "check."

The next paragraph indicates that the applicant performed an analysis assuming 25 gallons per minute leakage to determine leak detection setpoints.

The Nine Mile 2 equipment area and pipe chase area leak detection system temperature element setpoints were selected to ensure that detection and isolation of a high energy line break would occur in sufficient time and to ensure that the environmental qualification temperature profiles would not be exceeded, based upon a number of factors including the design of the equipment area cooling system. In addition, the setpoints were set sufficiently above the expected peak abnormal area temperature for a given area to minimize the occurrence of spurious trip signals. Ref. Q&R 440.16 (AMD 23).

This leak detection system would prevent the RCIC system inadvertent isolation because of high differential temperature in the equipment area. The high differential temperature equipment has been removed from Nine Mile Point Unit 2. FSAR pg. 7.3-16 (AMD 23) and 7.3-17 (AMD 23).

NRC Response

The SER will be revised to add:

The words "testable" between the words "two" and "check." Page 5-18, seventh paragraph, last sentence, and delete the word "differential" since the high differential temperature trips were removed.

SECTION II

NMPC Comment

27. Page 4-4, second paragraph - NEDO 24011-A-4 is incorrectly referenced. It should be NEDE. Because this was a general statement by NRC no corresponding FSAR.

NRC Response

NEDO 24011-A-4 is incorrectly referenced. It should be NEDE. The SER will be revised.



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NMPC Comment

28. SER pg. 4-7, last sentence of SEC. 4.4.3. - After "larger," add "or equal to." Refer to FSAR Table 4.4-1 (REV. 0).

NRC Response

The Applicant's proposed change is acceptable. The SER will be revised.

NMPC Comment

29. Page 4-11 and the fifth paragraph. The NRC has referenced Hatch. Nine Mile 2 FSAR table references Nine Mile 2, LaSalle, and WPPS2 under Table 4.4-1 (Rev. 0). We do not reference Hatch.

NRC Response

The "Hatch" reference should be kept even though the FSAR Table does not include Hatch. The staff used "Hatch" for comparison with NMP-2.

NMPC Comment

34. Page 5-17, second paragraph, third line indicates that the RCIC is required to maintain the reactor in standby conditions. FSAR page 5.4-29 (AMD 24) says hot standby.

NRC Response

"Hot standby" may be used for more clarity. The SER will be revised.

NMPC Comment

35. Page 5-25 provides information from several BWRs (Table 5.1 "safety/relief valve comparison"). This information cannot be verified within the Nine Mile 2 FSAR.

NRC Response

This information was taken from the various plants FSARs for comparison purposes. It should remain unchanged in the SER.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

2. It is essential to ensure that all data is entered correctly and that any discrepancies are identified and corrected promptly.

3. The second section covers the various methods used to collect and analyze data, including surveys, interviews, and focus groups.

4. These methods provide valuable insights into customer behavior and preferences, which can be used to inform marketing strategies.

5. The final part of the document discusses the challenges of data collection and analysis, such as ensuring data quality and privacy.

6. It is important to address these challenges to ensure that the data collected is reliable and can be used effectively.

7. In conclusion, the document emphasizes the need for a systematic and rigorous approach to data collection and analysis.

8. By following the guidelines outlined in this document, organizations can ensure that they are making the most of their data and are able to make informed decisions.

9. The document also provides a list of resources and references for further reading on the topic of data collection and analysis.

10. Finally, the document expresses the hope that it will be helpful to anyone interested in learning more about data collection and analysis.

NMPC Comment

53. SER pg. 6-32, middle of first paragraph - It is just cooled by the service water system, not the RHR service water system. Reference FSAR page 6.3-3 Item (6) (Rev. 0).

NRC Response

"RHR service water system" may be changed to "service water system" to agree with NMP-2 plant specific terminology. The SER will be revised.

NMPC Comment

54. SER pg. 6-33, last paragraph, first sentence - It says "...the (ADS) can be used to depressurize the system..." System is clarified to "reactor or primary system." Ref. FSAR Pg. 9-3-10 (AMD 24).

NRC Response

"Reactor or primary system" may be used instead of "system" for more clarity. The SER will be revised.

NMPC Comments

55. Page 6-33, third paragraph discusses the high pressure connection of the differential pressure transmitter. This information was changed in Amendment 26. Further, we suggest the wording change to read as follows: "To ensure an interlock at all times for both automatic and manual valve actuation, the high pressure connection of each differential pressure transmitter directly senses reactor vessel pressure with a permissive setpoint of approximately 88 psid (LPCS) and 130 psid (LPCI)." Ref. FSAR Q&R F421.39 (7.6) (AMD 26). The last paragraph, second sentence indicates that in accident conditions, "the air supply to the valves of the ADS system is provided by seismically qualified accumulators... Change "air" to "nitrogen". Further, "bottled air supply" should be changed to "seismically qualified accumulators inside the secondary containment."

Refer to pages 9.3-10 (AMD 24) and 9.3-11 (AMD 26). Also, change "nitrogen bottles outside of containment" to "2 nitrogen tanks" are valved in upon receipt of a low pressure.

56. Page 6-34, first paragraph, second line - change "air" to "nitrogen." After that sentence, add "In addition, nitrogen bottles located outdoors can be lined up to supply extended long-term N2 storage to the system." Ref. FSAR 9.3-10 (AMD 24) and 9.3-11 (AMD 23.).



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NRC Response

The SER will be revised as appropriate.

NMPC Comment

141. SER pg. 15-3, second sentence - The safety limit should be 1.07 for single loop operation and 1.06 for double loop operation. See FSAR Appendix 15, pg. 15B.3-5 (AMD 26) and Tech. Spec. pg. 2-1, Item #2.1.2.

NRC Response

The change is acceptable. The SER will be revised.

NMPC Comment

144. Page 15-18 of the SER, last paragraph, second line - Change the words "the air supply " to "the nitrogen supply." Refer to previous comment item 99.

NRC Response

The SER will be revised.

NMPC Comment

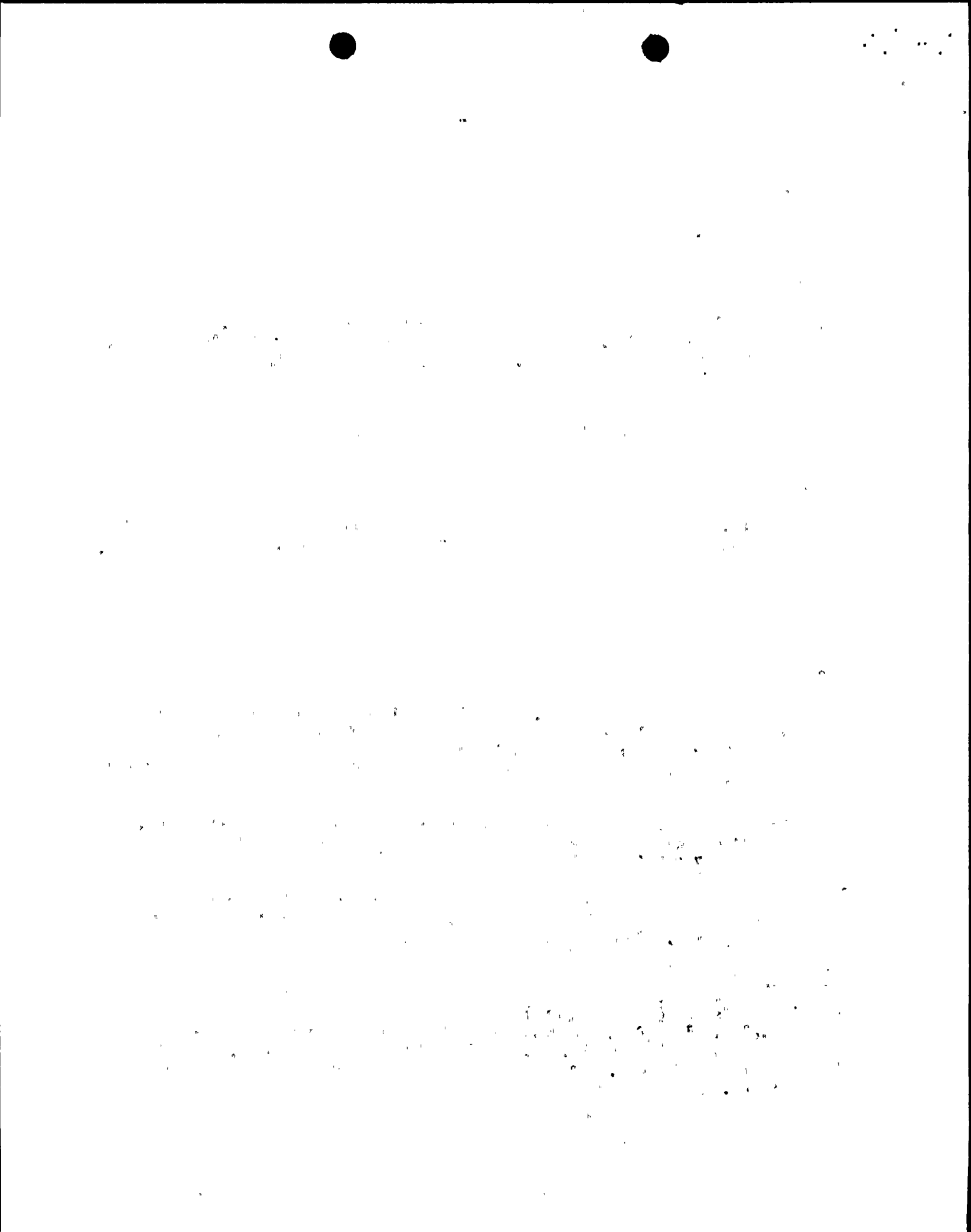
145. Page 15-20, first paragraph, sixth line - It says this point the main steam line will be isolated automatically and the high pressure core spray system and RCIC system will be automatically initiated. Remove the words "the main steam line will be isolated automatically and." Refer to FSAR page 5.4-17 (AMD 23).

Third paragraph, the seventh and eighth lines indicate ADS will occur on high drywell pressure. Remove the words "high drywell pressure" and refer to FSAR page 7.3-5 (AMD 23).

The last sentence indicates that there is a 120 second timer in that same paragraph. Change 120 to 105 second. Change four signals on that same line to three. Refer to comments item 64.

NRC Response

The MSIVs are closed on Level 1 and not on Level 2. Hence the NMPC comment is valid. The ADS Logic was changed by deleting drywell high pressure to meet action plan item II.K.3.18. The NMPC comment is valid. The ADS timer setting is 105 secs. Hence the NMPC comment is valid. The SER will be revised.



NMPC Comment

146. Page 15-23, first paragraph, sixth line indicates that intertie between service water system and reactor building closed loop cooling system. This statement is no longer true. Refer to pages 1.10-95 (AMD 23) and 1.10-96 (REV. 0). (Ref: II.K.3.25).

NRC Response

The BWR Owner's Group tests performed for Bingham and Byron Jackson pumps have indicated that the seal leakage rates are acceptable following loss of cooling to the seals. NMPC has stated in a letter dated August 22, 1986, that test results are representative for NMP-2 recirculation pumps. The staff is presently evaluating that response.



11

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that this is essential for the proper management of the organization's finances and for ensuring compliance with applicable laws and regulations.

2. The second part of the document outlines the specific procedures that should be followed when recording transactions. This includes the use of standardized forms and the requirement that all entries be supported by appropriate documentation.

3. The third part of the document provides a detailed description of the accounting system that will be used to record and process these transactions. It includes information about the software that will be used and the roles and responsibilities of the staff involved in the process.



STAFF RESPONSE TO NIAGARA MOHAWK POWER CORPORATION

COMMENTS ON THE NINE MILE POINT UNIT 2 SER AND SUPPLEMENTS 1 & 2

SECTION I SER COMMENTS

1. In our SER we stated that there are no non-seismic or non-tornado missile protected Category I vessels, pipes, or tanks located outside of plant buildings. Hence, since the seismic Category I water retaining components are limited to areas within plant buildings, their failure will not lead to external flooding of safety related structures or components.

The applicant has performed an analysis of the potential for causing external flooding due to failures of non-seismic Category I or non-tornado missile protected water retaining components. The results of this analysis indicate that safety related components or structures will not be adversely affected by external flooding due to the failure of non-seismic Category I or non-tornado missile protected water retaining components.

In view of the above considerations, we conclude that the information contained in our SER is accurate, but confusing, and in the SER will be revised.

2. The staff's SER states that the "unidentified leakage from the Reactor & Coolant Pressure Boundary (RCPB) is detected by high pressure and temperature within the primary containment, drywell equipment and floor drainage (Section II) sump level, gaseous radiation level in primary containment, and airborne particulate radioactivity monitoring. These leakage-detection systems are seismic Category I and are designed to be capable of performing their function following an SSE." As stated in Amendment 5 to the FSAR, all leakage detection systems are designed to be capable of performing their functions following an seismic events which do not require a plant shutdown; i.e., at or about the severity of an operational basis earthquake. As identified in FSAR Amendment 19, the drywell equipment drain tank collects piped drainage from the pump seal leakoff and the reactor vessel head flange vent drain. Therefore, the drywell equipment drain tank collects only identified leakage. The unidentified leakage is to be monitored, as specified in the FSAR Amendment 5, by the floor drainage sump, the airborne particulate radioactivity monitoring system, and the gaseous radioactivity monitoring system. As secondary monitoring systems, the containment atmosphere temperature and pressure monitors are to detect gross leakage. FSAR Table 3.2-1 identifies the primary containment radiation monitors (containment monitoring system) as the seismic Category I, Class 1E powered RCPB leakage detection systems. The primary containment radiation monitors, as discussed in FSAR Section 12.3 and Table 12.3-2, are the airborne particulate radioactivity monitors and the gaseous radioactivity monitors. Having these monitors as seismic Category I, Class 1E powered, meets the guidelines of Regulatory Guide 1.45, Position C.6.



The drywell equipment and floor drain tanks level instrumentation and the gaseous radioactivity and the airborne particulate radioactivity monitoring systems have the accuracy and the sensitivity in accordance with the guidelines of Regulatory Guide 1.45. The sensitivity and accuracy of these monitoring systems are specified in FSAR Table 5.2-8. On the basis of the conformance of these systems to the Regulatory Guide 1.45 in terms of accuracy and sensitivity, the RCPB leakage detection systems meets the guidelines of Position C.5 of Regulatory Guide 1.45.

The above material will be included in an SER supplement.

4. Acceptable for clarification. The SER will be revised.
5. Acceptable for clarification. SER Table 6.2 items B.4 and B.5 will be revised.
8. According to FSAR Fig. 9.2-10, the top of the highest intake structure, not including the manhole cover, is at elevation 232.5 ft. Lake Survey Datum of 1935. The normal lake level is at elevation 246 ft. Hence, there is approximately 12 feet of water between normal lake level and the top of the intake structures. The SER is correct as written.
10. Acceptable. Based on up-to-date information in FSAR Amendment No. 25. The SER will be revised.
11. Rejected. Table 11-4 on SER page 11-16 is the staff's calculated values (GALE CODE) and may not be consistent with the applicant's calculated values, and does not alter the SER conclusion.

## SECTION II SER COMMENTS

3. Differences in X/Q values reflect data and model assumptions used by the staff in the SER and in the FSAR by the licensee. SER is acceptable as written.
6. Discussion of extremes of temperature and precipitations normals is subject to revision periodically with the collection of more data. The general discussion in section 2.3.1 of the SER provides an overview of meteorological conditions that may be observed in the region containing the plant. SER is acceptable as written.
7. Discussion of air pollution in the region serves to describe the regional atmospheric conditions that exist and can influence the dispersion of gaseous effluents from the plant. SER is acceptable as written.
8. See response to comment 3 response above.
- 9a. Acceptable editorial change. The SER will be revised.



- 9b. The correction referred to in the FSAR is a correction for Lake Survey Datum of 1935 as is stated. There is a slight difference between MSL (National Geodetic Vertical Datum of 1929) which the SER refers to and Lake Survey Datum at Oswego, N.Y. The SER is acceptable as written.
10. This change has been reflected in a supplement to the SER.
11. It is not clear as to exactly what Niagara Mohawk believes is in error in the staff's SER Section 2.4.11 relating to cooling water. Any suggested rewording by the applicant should, as a minimum, address every issue addressed by the staff in the paragraph(s) to be replaced. In this case these issues include:
- (1) total average withdrawal,
  - (2) fish diversion withdrawal,
  - (3) blowdown and other discharges, and
  - (4) minimum operating water level.

Additional information is needed from applicant before any changes can be agreed upon, and any potential changes in staff conclusions should be resolved prior to initial criticality.

- 11a. Acceptable minor change. The SER will be revised.
- 11b. Acceptable minor change. The SER will be revised.
- 11c. Acceptable minor change. The SER will be revised.
12. The information contained in the NMP-2 SER relative to site stratigraphy was obtained from geologic cross sections, bedrock elevation maps and other site specific information contained in FSAR Section 2.4 and 2.5. The FSAR sections referred to in the applicant's comment refer to average properties of the overburden and rock in the site area. Therefore, there is no contradiction between the FSAR and the SER in regard to this issue. The SER is correct as written.
18. Section 9.5.4.1 of the SER identified the need for the applicant to provide additional information concerning the details of the 1-inch vent line between the diesel fuel storage tank and the day tank. This information was provided by the applicant in Amendment 20 to the FSAR. As documented in Supplemental SER number 2, this information was reviewed and found acceptable in that there is an acceptable means to vent and fuel oil storage tank in the event that the normal vent line is damaged by a tornado generated missile. Since the facilities identified in the alternative method are protected from tornado generated missiles, Section 3.5.2 of the SER is correct in stating that "All other safety-related systems and components and stored fuel are located within tornado-generated-missile-protected structures or are provided with barriers against tornado-generated missiles." The SER is correct as written.



33. See comment 2
37. SER is correct as written since Amendment 25 was issued after SER was published. Additional changes to Table 6.1-3 on unqualified coatings inside containment were evaluated in SSER-1. A future supplement of the SER will address the more current FSAR revisions in this area.
38. Acceptable for clarification. The SER will be revised.
39. Acceptable for clarification. The SER will be revised.
40. Acceptable for clarification. The SER will be revised. This change was made after SER was issued.
41. Acceptable for clarification. The SER will be revised. This change was made after SER was issued
42. Acceptable for clarification. The SER will be revised. This change was made after SER was issued.
43. Acceptable - editorial change. The SER will be revised.
44. Acceptable for clarification. The SER will be revised. This change was made after SER was issued.
45. Acceptable for clarification. The SER will be revised. Change was made after SER was issued.
46. Changes were made in SSER-2 except for reactor building inleakage which was increased from 3160 ft<sup>3</sup>/min to 3190 ft<sup>3</sup>/min. This increase was due to an increase in reactor building volume from 4,547,204 ft<sup>3</sup> to 4,593,600 ft<sup>3</sup> to reflect the as-built plant configuration. Therefore, it is acceptable. The increased 3190 ft<sup>3</sup>/min inleakage is included in the final Technical Specification. The SER will be revised.
47. Acceptable; see comment 46. The SER will be revised.
48. Acceptable editorial comment. The SER will be revised.
49. Not acceptable. Open item.
50. Acceptable for clarification. The SER will be revised.
51. SSER-3 addresses this comment except for the inclusion of the main steam system as conforming to the 10 CFR 50, Appendix J, Type A test criteria. This is acceptable since the main steam lines are flooded during the time of Type A testing and cannot be vented to the primary containment. The SER will be revised.



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1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that this is essential for ensuring the integrity of the financial statements and for providing a clear audit trail. The text notes that any discrepancies or errors in the records can lead to significant complications during an audit and may result in the disallowance of certain expenses.

2. The second part of the document outlines the specific procedures that must be followed when recording transactions. It states that all transactions must be supported by appropriate documentation, such as receipts, invoices, and contracts. The text also mentions that the records should be maintained in a systematic and organized manner, with each entry clearly dated and described. Furthermore, it is noted that the records should be retained for a minimum of three years after the end of the fiscal year to which they relate.

3. The third part of the document addresses the issue of the classification of expenses. It explains that expenses should be classified in accordance with the applicable accounting standards and should be recorded in the appropriate expense account. The text highlights that it is important to distinguish between capital expenditures and operating expenses, as this will affect the way the expenses are reported in the financial statements. Additionally, it is noted that certain expenses may be subject to specific limitations or restrictions, and it is the responsibility of the taxpayer to ensure that these are properly accounted for.

4. The fourth part of the document discusses the importance of reconciling the records with the bank statements and other external sources. It states that this is a critical step in the accounting process, as it helps to identify any errors or omissions in the records. The text notes that any discrepancies should be investigated and corrected as soon as possible, and that the reconciliation should be performed on a regular basis, typically at the end of each month. Furthermore, it is mentioned that the reconciliation should be supported by appropriate documentation, such as a reconciliation statement and supporting records.

5. The fifth part of the document concludes by reiterating the importance of maintaining accurate and complete records of all transactions. It states that this is a fundamental requirement for any taxpayer, and that failure to do so can result in penalties and interest. The text also notes that the records should be made available to the tax authorities upon request, and that it is the responsibility of the taxpayer to ensure that the records are accurate and complete at all times.



52. Acceptable editorial change. The SER will be revised.
57. Acceptable for clarification. The SER will be revised.
88. The applicant's reference to FSAR page 9.1-15a on high energy pipe breaks does not support the requested word changing. Furthermore, there is no wording or the results of any analysis which could be found in Section 9.1.3 of the FSAR which could support the requested word change. Based on the lack of support information, we conclude that the SER, as written, may be correct and should remain unchanged at this time. This is an open item since the differences in staff and applicants conclusions involve an important safety issue.
89. The SER was prepared prior to receipt of Amendment 19 to the FSAR. In Amendment 19 the applicant changed the results of their analysis of the heat rejection capability of the spent fuel pool cooling system. The SER cannot be changed without the applicant providing a complete refueling schedule and data for the staff to perform a revised evaluation. If the numbers specified in the SER do not pose any undue burden to the applicant, the most expedient solution is for the applicant to withdraw the comment. This is an open item.
90. The SER states: "No connections are provided to the spent fuel pool below the normal water level that may cause the pool to be drained and, therefore, the fuel would not be uncovered should these lines fail." The applicant has requested that this sentence end with "... below the normal water level of the fuel." If our SER is not correct, then the applicant does not meet the requirements of General Design Criterion 44, "Cooling Water" and this, then, is an open item. The applicant's reference to FSAR Page 9.1-7 does not support the requested change. Furthermore, the sentence that was proposed makes little or no sense. Based on the above, we conclude that the SER, as written, should remain unchanged, and the applicant should confirm that they do not meet the requirements of General Design Criterion 44. This is an open item.
91. Acceptable minor detail changes applicant made after SER was published. The SER will be revised.
- 94a. Acceptable. The SER will be revised.
- 94b. Acceptable. The SER will be revised.
95. Acceptable. The SER will be revised.
96. The safety-related portions of the reactor building closed-loop cooling water (RBCLCW) system are quality class B. The non-safety-related portions are not specifically addressed in the SER. Only the safety-related portions are required to meet the requirements of General Design Criterion 2 and the guidelines on Regulatory Guide 1.29. Thus, we conclude that the SER, as written, is correct and should not be revised.



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97. The SER is correct as written. There is no reason to revise it.
98. Acceptable. The SER will be revised.
99. The applicant proposed an acceptable minor change that does not affect meeting the guidance and requirements for the Process Sampling System. The SER will be revised.
100. Acceptable for clarification. The SER will be revised.
101. The applicant's comment to revise the wording from "nonseismic Category I" to simply "nonseismic" is a meaningless comment. From the Staff's point of view, either the component is "seismic Category I" or it is "nonseismic Category I". There are no categories of "seismic" and "nonseismic". The SER, as written, is correct and should not be modified.
106. This comment is acceptable. The SER will be revised.
107. This comment is rejected on the basis that the staff could not find the commitment in the reference given. This is an open item.
108. This comment is acceptable. The SER will be revised.
109. Not acceptable. Open item.
110. This comment is acceptable. The proper references are FSAR pages 9.2-28 & 29, and figure 1.2-29. The SER will be revised.
111. This comment is acceptable. The SER will be revised.
114. The applicant requested that our SER be revised to reflect a lower storage capacity for the seven day fuel oil storage tanks. The SER states that the capacity of these tanks for diesel generators I & II are 53,150 and 46,850 gallons, respectively. The applicant desires these values to be revised to 52,664 and 36,173 gallons, respectively. Based on the information provided by the applicant in Amendment 25 to the FSAR, the required capacity for the seven day storage tank would be 68,712 and 47,376 gallons, respectively. These figures are derived from the one hour fuel consumptions provided in the FSAR. Based on the manufactures data for Division III diesel generator, the seven day storage tank would need a capacity of 45,360 gallons. Furthermore, the fuel consumption rate for the Division III diesel generator stated in the FSAR, as amended by Amendment 25, is only 75% of the fuel consumption rate specified by the manufacturer. The applicant must provide justification for not using the manufacturer's fuel consumption rates, for requesting approval for storage of less than the currently acceptable amounts of fuel oil, and for reconciliation of the specified fuel consumption rates specified in Amendment 25 and the one hour fuel operating consumption. We note that all of the above information is based on the same assumptions as was the applicant's analysis and specified in the FSAR. Based on the inconsistencies and the unsupportable assertions made by the applicant, we conclude that the SER, as written, may be correct and must not be changed without adequate justification and information from the applicant. This is an open item.



118. The SER will be revised to correct the discussion of the MSIV actuator.
122. Acceptable. This change has already been incorporated in SSER No. 3 issued in July 1986.
- 123a. Rejected. Since the staff's evaluation was based on the use of all process equipment available at NMP-2 Liquid Radwaste System. The applicant may bypass certain equipment if radioactivity and/or impurities in the streams are sufficiently low to meet Appendix I "ALARA" criteria and Technical Specification. The SER will be modified to clarify the need to operate the radwaste system to meet the ALARA intent of Appendix I to 10 CFR 50.
- 123b. The staff's system description (not evaluation) includes only normal process pathways (not all possible and conceivable pathways). No change in the SER is considered necessary.
- 123c. The staff's numbers are more conservative based on the applicant's original d&e data and information provided to NRC. No SER change required.
124. Acceptable. Revised SER page 11-5 is attached.
125. Partly acceptable. Based on information through FSAR Amendment No. 26. The SER will be revised to reflect 11,000 curies instead of 6,000 curies of activity for the annual production of wet solid wastes. The minimum storage capacity will be revised from 2 months to 3 months. The reference to 49 CFR 170 is correct. 40,000 ft<sup>3</sup> of wet wastes and 22,000 ft<sup>2</sup> of compacted dry wastes are staff calculated values.
126. Acceptable. The SER will be revised.
127. Accepted for clarification. The SER will be revised.
128. Rejected. Wordings are consistent with NUREG-0737, Item II.F.1, Attachment 1
129. Rejected. Table 11-2 on SER page 11-4 is the staff's independently calculated values and need not be consistent with applicant's calculated values.
130. Accepted. Based on information through FSAR Amendment No. 23. The SER will be revised.
131. In Section 12 of the SER all references to Reg. Guide 8.8, Revision 3, are correct since in our evaluation we compared the applicant's FSAR against Revisions 3. Please note that Revision 4 has not yet been issued in its final form.
132. As its heading states, Table 12.3-1 (AMD 24) represents "Area Radiation Monitor Locations." There are 58 locations at NMP-2 which are monitored. There are two high range area monitors at each of the four locations in the drywell to cover the full desired range of 1-10<sup>7</sup>R/hr. (2 RMS\*RE1A(-G); 2 RMS\*RE1B(-Y); 2 RMS\*RE1C(-G); and 2 RMS\*RE1D(-Y). The sentence in the SER will be revised to indicate 58 locations.



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133. The first sentence (on page 12-9) which states "Currently, operating BWR's average 848 person-rems per unit annually, with particular plants experiencing an average lifetime annual dose as high as 1850 person-rem." The 848 person-rem dose is an NRC computed value based on average reported annual plant personnel exposures at the time of writing the SER. It is not based on the NMP-2 FSAR, and no SER change is required.
134. First paragraph on page 12-1 has only one sentence and has nothing in common with Section 12.5-2 nor a list of calibration facilities. In reference to Section 12.5.2, on page 12-10, which we assumed was the intended reference, we are aware of the fact that the calibration facilities are located at nearby NMP-1 and will be used jointly for both Unit 1 and Unit 2.
135. FSAR, Section 12.5.3.3.7, first sentence states that: "Plant employees, contractors, and visitors are required to wear film badge, a TLD, and a personal dosimeter when in the restricted area, in accordance with 10 CFR 20." Therefore, based on the FSAR, all three are required; a film badge is not a substitute for the other two personal monitors. The applicant apparently understands differently, and the issue is an open item.
136. Only portable air samples are considered in this review as portable air required in accordance with TMI item III.D.3.3. In most cases silver zeolite cartridges do not require purging. Charcoal cartridges should be purged with clean air or nitrogen prior to analysis. The SER will be revised to clarify this section as discussed above.
143. The SER will be revised.
148. Acceptable. The SER will be revised.
149. Acceptable. The SER will be revised.



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STAFF RESPONSE TO NIAGARA MOHAWK POWER CORPORATIONSection II, Item 132.5.4.4 Excavation and Backfill For Safety-related Structures

In Table 2.2 (Section 2.5.4.4 of SER) the foundation data for seismic Category I structures are listed. The actual and allowable bearing pressures for intake shaft, intake tunnel and intake structure are not listed.

In table 2.5-43 of the FSAR, the pressure values are listed for intake tunnel and intake structure.

Therefore Table 2.2 will be changed to include the bearing pressure values for the intake tunnel and intake structure are as follows:

<u>STRUCTURES</u>	<u>BEARING PRESSURE</u>	
	<u>ACTUAL</u>	<u>ALLOWABLE</u>
Intake shaft	-----*	-----*
Intake tunnel	23.00	40
Intake structure	6.0	20

\*The FSAR does not give the value, even though the intake structure is indicated in Fig. 1.2 - 29

Section II, Item 14

The SER will be revised.

Section 3.5.1.3.8 of SER, third paragraph contains the sentence. "At 103% of rated speed, the EHC will close the governor and intercept valves."

According to the latest revision (Rev. 0) of FSAR section 3.5 page 3.5 - 16, the EHC system will close the governor and intercept valves at 102% of rated speed.

The SER will be revised to reflect this.

The staff is presently reviewing the applicants letter of August 29, 1986, concerning the load control capability of the Electrical Hydraulic Control System.

Section II, Item 193.8 Design of Seismic Category I Structures

THE HISTORY OF THE UNITED STATES

CHAPTER I

THE DISCOVERY OF AMERICA

THE first discovery of America was made by Christopher Columbus in 1492. He sailed from Spain in search of a westward route to the Indies. On October 12, 1492, he landed on the island of San Salvador in the West Indies. This event marked the beginning of European exploration and settlement in the Americas.

Other explorers followed Columbus, including Amerigo Vesputi, who gave his name to the continent of America. The Spanish and Portuguese empires were established in the Americas, leading to centuries of colonial rule and the eventual independence of many nations.

The United States was founded in 1776, following the American Revolutionary War. The country has since grown into a major world power, known for its democracy, innovation, and cultural diversity.

3.8.1 Concrete Containment

This subsection of the SER contains the sentence "The drywell is a stainless-steel clad, steel-lined, reinforced - concrete vessel in the shape of a frustum of two cones."

The drywell steel liner does not have a stainless-steel cladding.

The SER will be revised.

Section II, Item 20

The SER will be revised.

Section II, Items 22, 23, 24, and 25

The SER will be revised.

Section II, Item 150

The SER will be revised.

Section II, Items 30, 31, 32, and 36

The SER will be revised.



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EICSB'S RESPONSE TO APPLICANT'S COMMENTS  
ON SECTION 7.0 AND 8.0 OF SER/SSERs 1 AND 2

SECTION I COMMENTS

6. Pg. 7-28 (SER)

Referenced paragraphs changed to reflect FSAR design description as recommended.

7. Pg. 7-2 (SSER 2)

Referenced paragraph revised to reflect actual method utilized to calculate protection system setpoints as requested.

SECTION II COMMENTS

60. Pg. 7-9 (SER)

Change made as requested for clarification

61. Pg. 7-10 (SER)

Change made as requested for clarification

62. Pg. 7-16 (SER)

Removed HPCS discharge flow alarm to reflect actual design based on applicant's comment. Reference to valve position indication encompasses valve status lights and thus, is adequate phrasing.

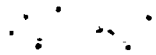
63. 64. Pg. 7-17 (SER)

Revised various portions to reflect actual design per FSAR description as necessary. Manual inhibit switches discussed in SSER 2, Section 15, 9, 3.

65. (See Pg. 4 of this enclosure)

66. Pg. 7-20 (SER)

Modified SER as requested to reflect FSAR design description. The applicant's statement is consistent with FSAR Table 6.2-56.



67. Pg. 7-21 (SER)

Revised SER as requested to reflect FSAR design description referenced by applicant.

68. Pg. 7-22, 7-23 (SER)

Revised to reflect FSAR design description as referenced by applicant.

69. Pg. 7-24 (SER)

SER revised as necessary to reflect FSAR design information referenced by applicant except for the addition of "or hydrogen" in Section 7.3.1.6 second paragraph. This addition is not acceptable.

70. Pg. 7-25 (SER)

Third paragraph under 7.3.1.7 was not revised as requested because referenced FSAR Section 9.4.2.5.1 does not provide a basis for any modification.

Sixth paragraph was revised to reflect FSAR design information.

71. Pg. 7-29 (SER)

First paragraph was revised as necessary to reflect FSAR design description.

Second paragraph not revised since referenced FSAR Pg. 9.2-3 does not provide a basis for any modification.

72. Pg. 7-30 (SER)

Section 7.3.10.1 (of SER) conditions was revised to reflect FSAR description.

73. Pg. 7-39 (SER)

Change not made as requested. Referenced FSAR Pg. 5.2.37 does not provide adequate basis.

74. Pg. 7-40 (SER)

SER Section 7.4.1.3 revised as necessary per applicant's comments for clarification purposes.

75. Pg. 7-34 (SER)

Requested revision not made. NRC staff is not aware of receipt, review, and approval of NEDO 32617.



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76. Pg. 7-40 (SER)

Requested change not made. Referenced FSAR Pg. 9.3-35 does not provide basis for any modification.

77. Pg. 7-4 (SER)

Change has been made to reflect applicant's comment related to clarification for the APRM trips.

78. Pg. 7-44 (SER)

Change made based on referenced FSAR Pg. 7.5-2.

79. Pg. 7-50 (SER)

Request change made based on referenced FSAR Pg. 11.5-7.

80. Pg. 7-51 (SER)

Third paragraph revised as requested based on referenced FSAR Pg. 5.4-19.

Fourth paragraph revised as requested since SER Section 6.3 provides a basis for the requested change.

Items (1), (2), and (3) of Section 7.6.1.3 was revised as requested based on FSAR information. Item (4) was not changed since FSAR does not support the requested information.

81. Pg. 7-52 (SER)

First paragraph not changed as requested because it is being recommended to add additional information on the methods utilized for leak detection. SERs do not typically describe all design details discussed in the FSARS.

Section 7.6.1.5 (Recirculation Pump Trip System) was not revised as requested because the referenced FSAR page does not provide a basis for such a change.

82. Pg. 7-53 (SER)

First sentence changed as requested for clarification of design as described in FSAR (Pg. 7.6-2).

Second paragraph changed as requested. Consistent with SSER #3, Section 7.6.2.1.



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## 83. Pg. 7-60 (SER)

First paragraph revised as requested for clarification. Consistent with response to Question 440.43.

## 65. Pg. 7-18 (SER)

This comment appears primarily to be a matter of semantics. There may be no centralized load sequencer at NMP-2 but the load sequencing relays accomplish the same function and could be referred to collectively as a load sequencer.

## 84. Pg. 8-10

Comment seems to refer to the statement in the SER that, "For all control and instrumentation circuits, the penetrations can continuously carry the maximum short circuit current available without exceeding their thermal limit," but the references given seem to refer to the LFMG set penetrations. There is a statement on FSAR Page 8.3-40 which is similar to the above SER statement but deletes control circuits from the statement. If the comments is therefore that the control circuits cannot continuously carry the maximum short circuit current without exceeding their thermal limit, redundant overcurrent protection required by RG 1.63 should be provided for the penetrations. Figures 8.3-8b do not show any control circuits utilizing redundant protection.

## 85. Pg. 8-12 (SER)

The SER will be revised.

## 86. Pg. 8-5 (SER)

The SER will be revised.

