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SUBJECT: Provides perspective & response to Union of Concerned Scientists ltr dtd 970409.

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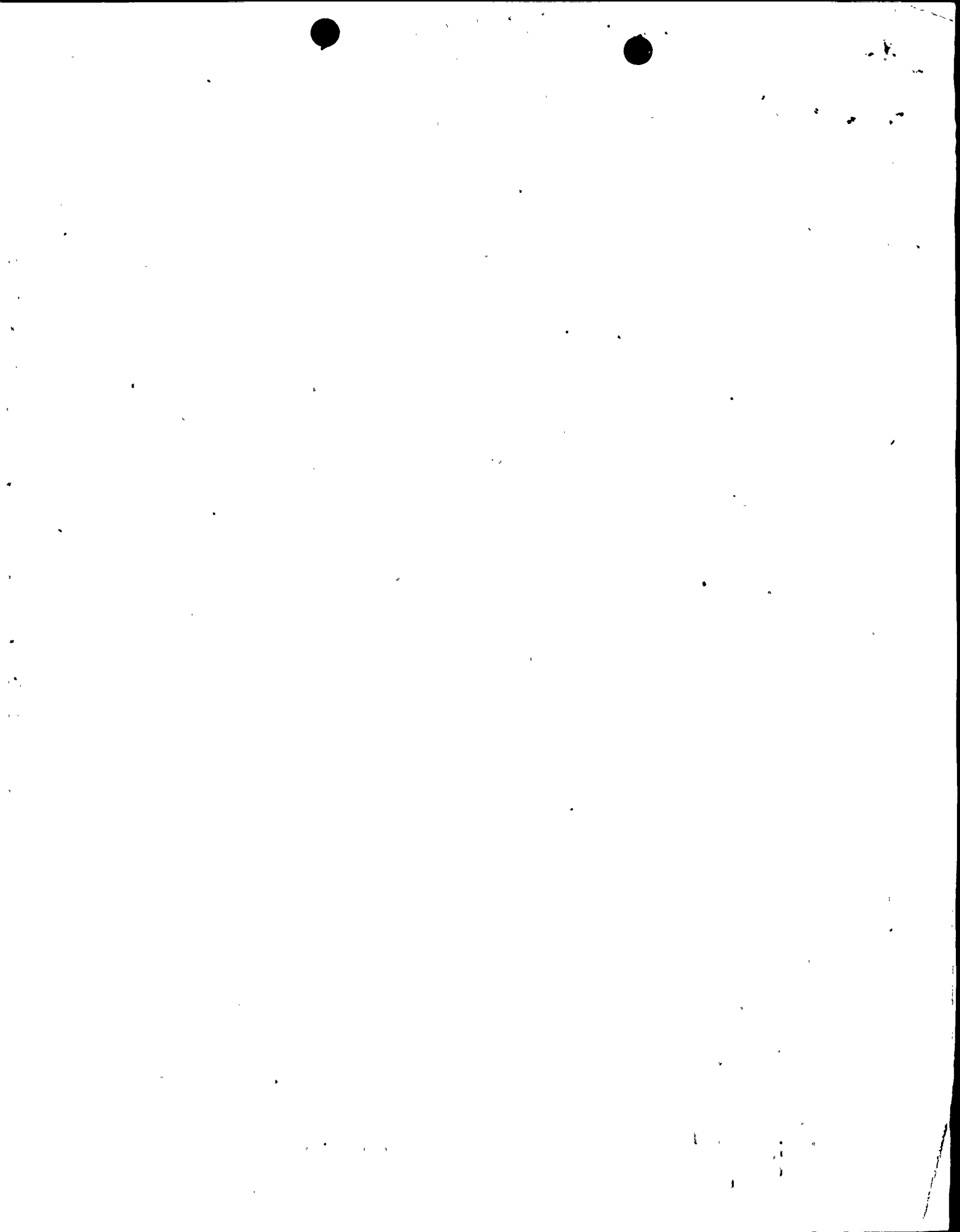
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Vice President
Nuclear Engineering

April 26, 1997
NMP1L 1212

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

*Subject: Response to Union of Concerned Scientists Letter dated April 9, 1997,
Regarding Nine Mile Point Unit 1*

Gentlemen:

By letter dated April 8, 1997, Niagara Mohawk Power Corporation (NMPC) submitted to the NRC the inspection results of Nine Mile Point Unit 1 (NMP1) Core Shroud and Stabilizer Assemblies conducted during the Spring 1997 refueling outage. The submittal of April 8, 1997, also requested approval for a proposed modification to the stabilizer assemblies in accordance with 10CFR50.55a.

In a letter to the NRC dated April 9, 1997, the Union of Concerned Scientists (UCS) raised several technical questions regarding the NMP1 core shroud based on the NMPC submittal. The purpose of this letter is to provide NMPC's perspective and response to those issues as requested by the Staff. The attachment to this letter repeats each UCS issue and the associated questions, followed by NMPC's response.

If there are any additional questions on these issues, please contact me at (315) 349-2660.

Sincerely,

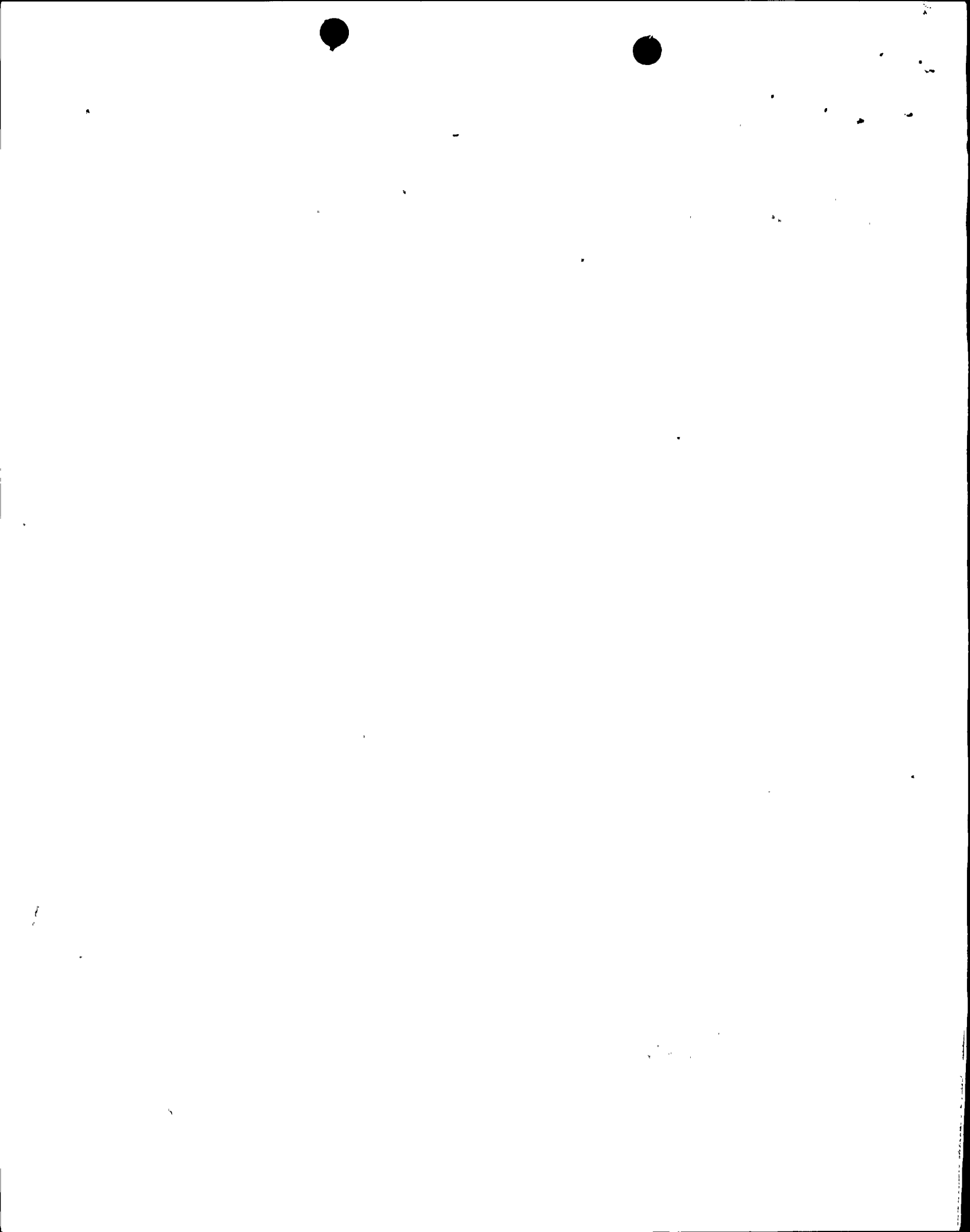
Martin J. McCormick Jr.
Vice President - Nuclear Engineering

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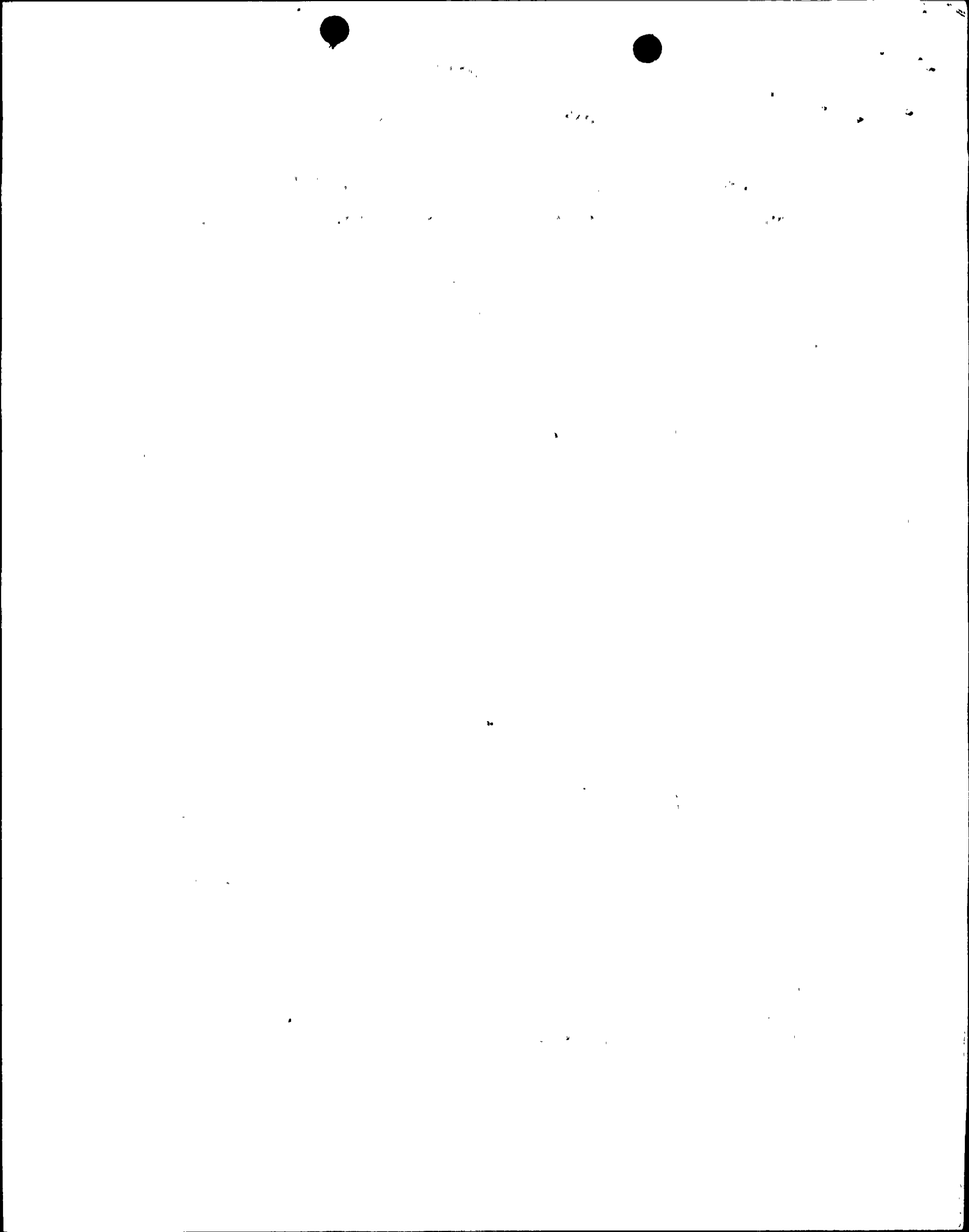
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Attachment

A001/1





xc: Mr. H. J. Miller, Regional Administrator, Region I
Mr. S. S. Bajwa, Acting Director, Project Directorate I-1, NRR
Mr. B. S. Norris, Senior Resident Inspector
Mr. D. S. Hood, Senior Project Manager, NRR
Records Management



ATTACHMENT

NINE MILE POINT UNIT 1

RESPONSES TO UNION OF CONCERNED SCIENTISTS LETTER DATED APRIL 9, 1997, REGARDING OPERATION OF NINE MILE POINT UNIT 1

Issue #1

NMPC has not established the as-found condition of the vertical weld cracking with sufficient certainty to justify continued operation.

Questions:

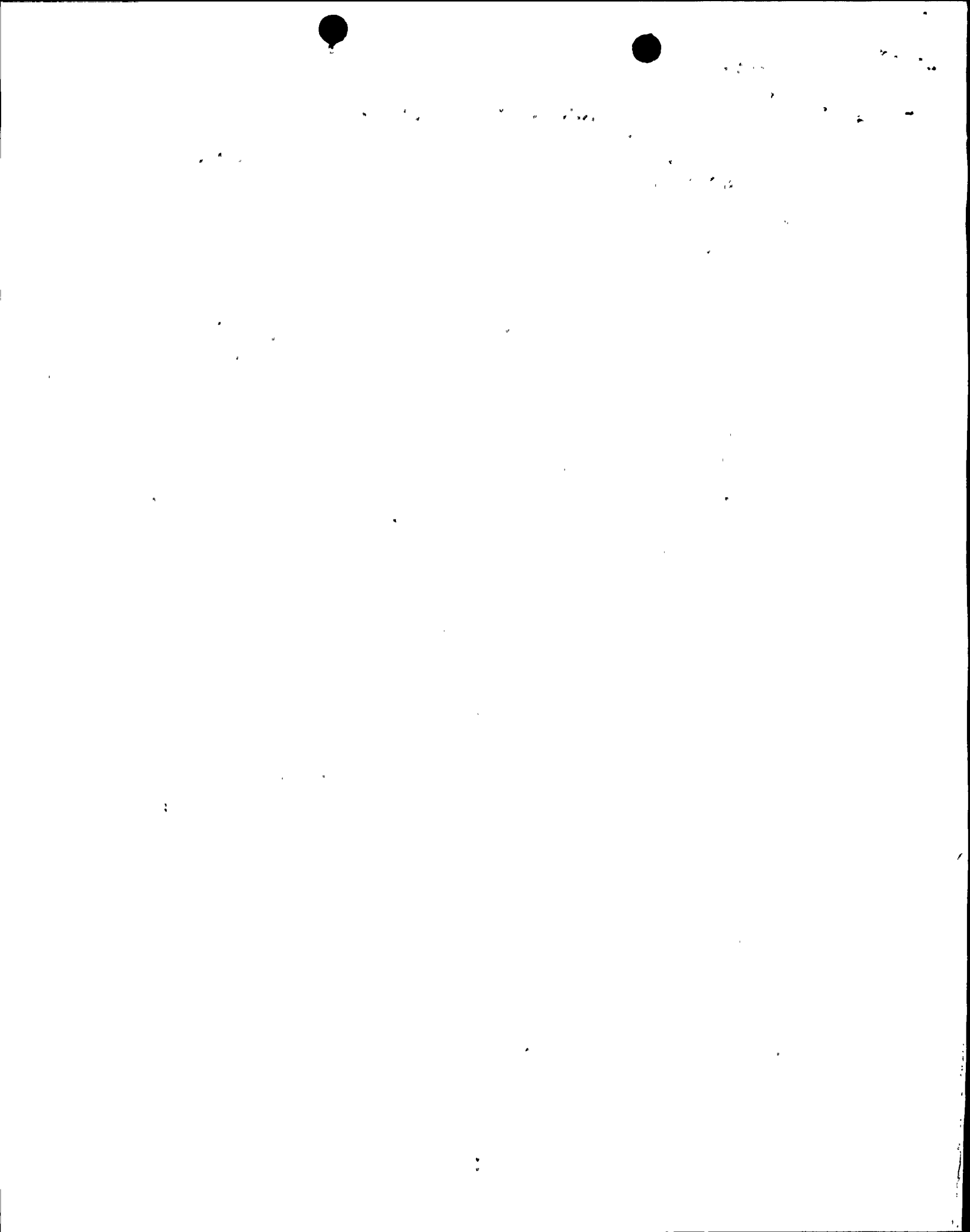
- a) *Since NMPC has not yet established the age of the cracking or even confirmed the presence of IGSCC, how can the crack propagation rate be determined?*
- b) *Since NMPC has not defined acceptable limits for vertical weld cracking, how can the NRC determine if the as-found condition is acceptable even if the crack propagation rate is known?*

NMPC Response to Issue #1

- a) The characteristics of the extremely tight flaws, including their locations in the heat affected zones of the core shroud welds, are consistent with industry experience with IGSCC in core shrouds. While the crack propagation does change with age, it is bounded by the NRC approved crack propagation rate of $5E-5$ in/hr.
- b) The acceptable limits for vertical weld integrity have been calculated and are contained in our submittal of April 8, 1997 (Enclosure 1: Table 5-2 and Section 5.3). The NMP1 core shroud is nominally 1.5" thick. The cracking observed is above 80% through wall only in a small portion (less than 12") of the entire length of the V9 and V10 welds. The average depth is 30% - 50%; therefore, significant ligament remains for the structural integrity of the core shroud.

Issue #2

NMPC is seeking NRC acceptance of the as-found condition for the vertical welds and approval of an alternate repair for the core shroud horizontal welds, but has not yet completed all of the documentation necessary to support such determinations.



Questions:

- a) *How can NMPC and the NRC be assured that the as-found condition of the vertical welds and the alternate repair for the horizontal welds are adequate until after all of the inspection documentation had been assembled and the final QA review completed?*
- b) *How can the problems which caused a discrepancy involving the 1995 core shroud "repair" to remain undetected until after the plant restarted be avoided if conclusions are based on documentation that has not been QA reviewed?*
- c) *Is NMPC satisfying its commitment from the April 22, 1996, LER for additional engineering oversight and its legal obligations under 10 CFR 50 Appendix B when it bases a safety determination on inspection information that has not received a final QA review?*

NMPC Response to Issue #2

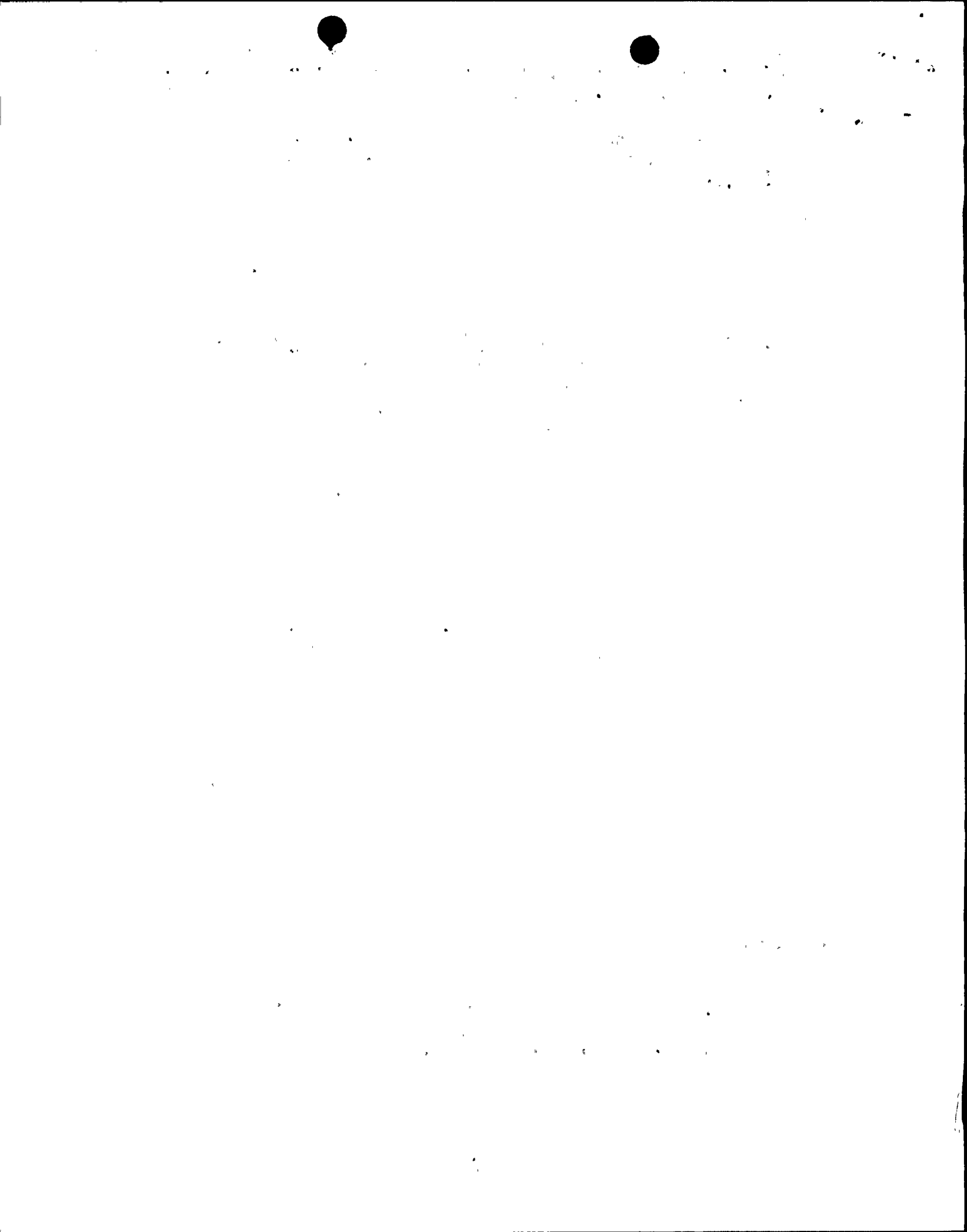
- a) It has always been the intent of NMPC to complete the review process prior to drawing any final conclusion. That process has now been completed. The ultrasonic inspection data have been reviewed and approved by a Level III, QA Inspector. The formal written documentation package has been approved by NMPC QA. A summary of the inspection package will be provided to the NRC prior to restart.
- b) 10CFR50 Appendix B requires that all results be reviewed and approved prior to declaring equipment operable. Therefore, the plant could not be restarted until the results were QA reviewed and approved. The inspection data from the as-left condition of the shroud stabilizers have been reviewed and approved by NMPC QA. Design requirements and conditions have been verified. Definitive acceptance criteria have been established.
- c) Inspection information and documentation have received final NMPC QA review and approval. Engineering has clearly defined the acceptance criteria. The question is therefore moot (see response to a) above).

Issue #3

A safety evaluation is required in accordance with 10CFR50.59 to permit the continued operation of NMP1 with the as-found vertical weld cracking condition.

Questions:

- a) *Has NMPC performed a safety evaluation for continued operation of NMP1 with the as-found vertical weld cracking condition?*



- b) *If performed, has this safety evaluation been submitted to the NRC on the docket to facilitate the NRC staff's acceptance of the as-found vertical weld condition?*
- c) *If not performed, how can the NRC staff accept the as-found vertical weld condition at NMP1, since the NRC's policy as stated by Mr. Thomas T. Martin during the Regulatory Information Conference is to require unreviewed safety questions associated with nonconforming and degraded conditions to be resolved prior to restart?*

NMPC Response to Issue #3

- a) NMP1 has developed a 10CFR50.59 safety evaluation for the restart of NMP1 with the as-found condition of the core shroud vertical welds, including cracks found within and adjacent to the weld heat affected zones (HAZs). The safety evaluation was based upon information that has been approved. The safety evaluation concluded that safe operation of the unit is assured and no unreviewed safety questions exist.
- b) NRC regulations do not require that 10CFR50.59 safety evaluations be submitted to the NRC staff for review or approval. These evaluations are, of course, available to the Resident Inspectors and other NRC staff for their information. The safety evaluation was based upon the same information that was previously provided to the staff.
- c) The shroud vertical welds have been analyzed in accordance with ASME Section XI and found to be acceptable. A safety evaluation has been developed, and the conclusion was that no unreviewed safety questions exist.

Issue #4

NMPC is inconsistent in its characterization of the as-found vertical weld condition at NMP1.

Question:

Is the extent of cracking in the outside diameter vertical welds at NMP1 consistent with experience at other BWRs or not?

NMPC Response to Issue #4

Other BWRs have found cracking on either the inside diameter or outside diameter of the core shroud vertical welds. The extent of vertical weld cracking observed at other BWRs has been less to date than that observed at NMPC. The cracking in vertical welds, however, is not unexpected and has been predicted and confirmed by modeling studies.

