



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

MAR 27 1985

Docket No. 50-410

Mr. B. G. Hooten  
Executive Director, Nuclear Operations  
Niagara Mohawk Power Corporation  
300 Erie Boulevard West  
Syracuse, New York 13202

Dear Mr. Hooten:

SUBJECT: APPLICATION FOR AUTHORIZATION TO UTILIZE AN ALTERNATE TO THE  
REQUIREMENTS OF 10 CFR 50.55a FOR THE NINE MILE POINT NUCLEAR  
STATION UNIT 2

The staff has completed its review of the Niagara Mohawk Power Corporation (NMPC) application for authorization to utilize an alternate to the requirements of 10 CFR 50.55a(c)(1). 10 CFR 50.55a(c)(1) requires that components which are part of the Reactor Coolant Pressure Boundary (RCPB) meet the requirements for Class 1 components in Section III of the ASME Boiler and Pressure Vessel Code. 10 CFR 50.55a(a)(3) further states that alternates to the requirements of paragraph (c) of this section may be used under certain conditions when authorized by the Director of the Office of Nuclear Reactor Regulation.

NMPC proposes to utilize as a main steam isolation valve (MSIV) a valve that meets all the requirements of the ASME Code for Section III, Class 1, components with the exception of paragraph NB-2211. NB-2211 requires that the material for the tensile and impact test specimens be heat treated in the same manner as the component including an allowance for any subsequent heat treatment. The one MSIV under consideration is identified as valve 7A and is located outside the primary containment in steam line A. This 24-inch valve (one of eight) was designed and fabricated by Gulf & Western Manufacturing Company/Fluid Systems Division (currently Crosby Valve Division of Moorco Company) under their ASME Section III program and Certificate of Authorization and was Code stamped N Class I. The valve body, which was manufactured by Cameron Iron Works, is a carbon-manganese steel forging conforming to the requirements of material specification SA 350 Grade LF2. During a review of documentation on the MSIV's, it was discovered that the material used for the test specimens for valve body 7A was normalized, austenitized and water quenched and then tempered for six hours at 1200°F, whereas, the valve body itself was normalized, austenitized and water quenched, tempered for six hours at 1200°F and then subjected to approximately 13 hours of postweld heat treatment (PWHT) at 1125°F. Therefore, the requirements of NB-2211 of Section III for Class 1 components have not been met and the body of valve 7A is not in conformance with the ASME Code. That is, while the heat

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A PDR

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treatment on the test material specimens and the valve body are identical the test material specimens were not subjected to simulated PWHT as required by the ASME Code.

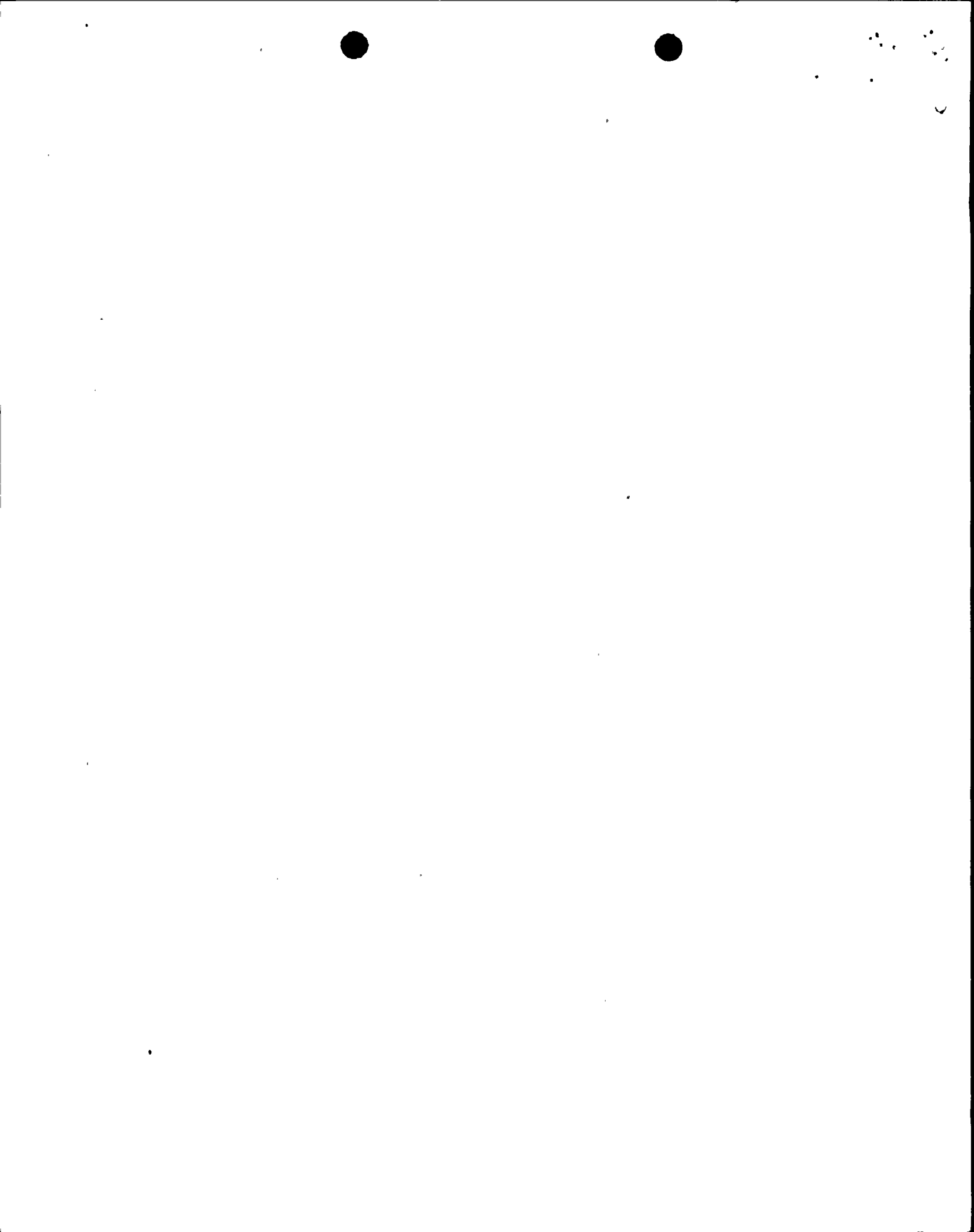
In order to demonstrate that MSIV 7A is acceptable, an independent metallurgical evaluation was conducted by Dr. R. D. Stout of Lehigh University to determine the effects of the time at temperature during PWHT. Although the valve body received approximately 13 hours of PWHT, the evaluation was performed using 20 hours, providing the capability of PWHT in the future if needed during plant life. The evaluation showed that because temperature is the dominant factor, tempering has the major effect on the material properties and that PWHT has a negligible additional effect. There would not, therefore, have been a significant difference in the test results if the test material specimens had been subjected to simulated PWHT. Since the test values are considerably above the minimum values required by the material specification, this difference would not have caused the values to fall below those of the material specification. The valve body is, therefore, acceptable.

Actions which could be taken to bring MSIV 7A into total compliance with Section III, Class 1, of the ASME Code would result in hardship and unusual difficulty. These actions are (1) cutting and testing specimens from the valve itself, or (2) complete replacement of the valve body. Both of these actions involve extensive rework and would not result in a compensating increase in the level of quality and safety of the plant.

Therefore, the NRC staff finds that MSIV 7A as currently fabricated and installed is acceptable and will provide an acceptable level of safety.

Since MSIV 7A is not in total compliance with Section III of the ASME Code for Class 1 components and, therefore, should not have a Code N-Symbol Stamp or a completed Data Report (Form NPV-1), we require the following actions be implemented by NMPC to reflect the current status of the valve:

- (1) Revise the Design Specification as appropriate. Advise the manufacturer and the ANI, who signed the Certificate of Compliance and Certificate of Shop Inspection on the Data Report Form NPV-1, that your findings indicate that the Code Rules have not been met and their records should be so modified. Annotate the Data Report Form to this effect.
- (2) Remove or deface the Code N-Symbol Stamp on the valve nameplate.

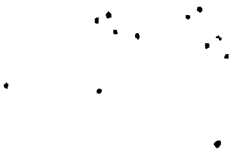


In addition to the above, MSIV 7A shall remain within the scope of the Nine Mile Point Unit 2 Quality Assurance Program that is in conformance with 10 CFR 50, Appendix B for RCPB components and shall be tested as a Category A valve in accordance with an Inservice Testing Program that is in conformance with Section XI of the ASME Code.

Sincerely,

A handwritten signature in black ink, appearing to read "HR Denton". The signature is written in a cursive, somewhat stylized font.

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation



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Sincerely,

Original Signed by

H. R. Denton

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

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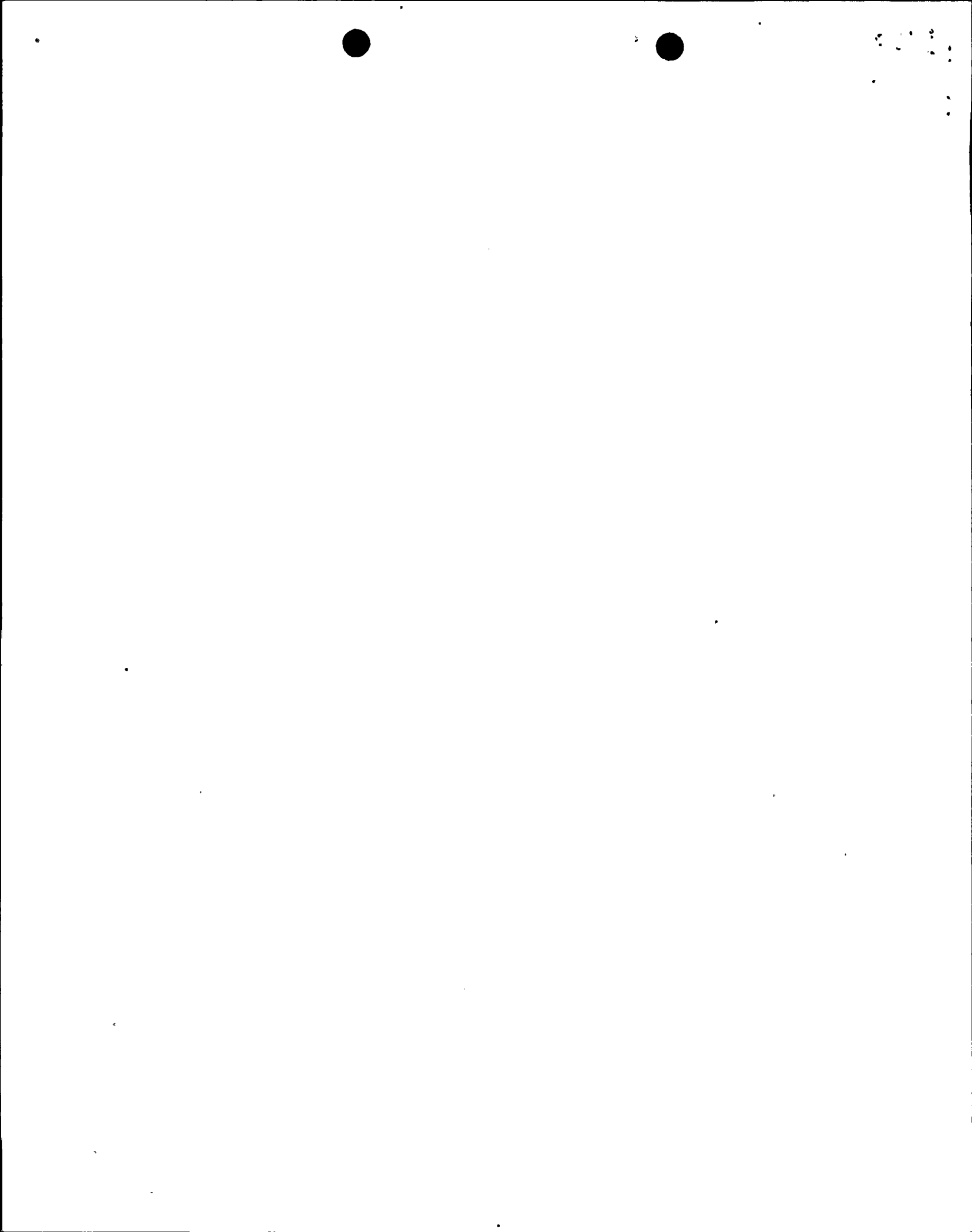
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\*OELD  
Bordenick  
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Nine Mile Point 2

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