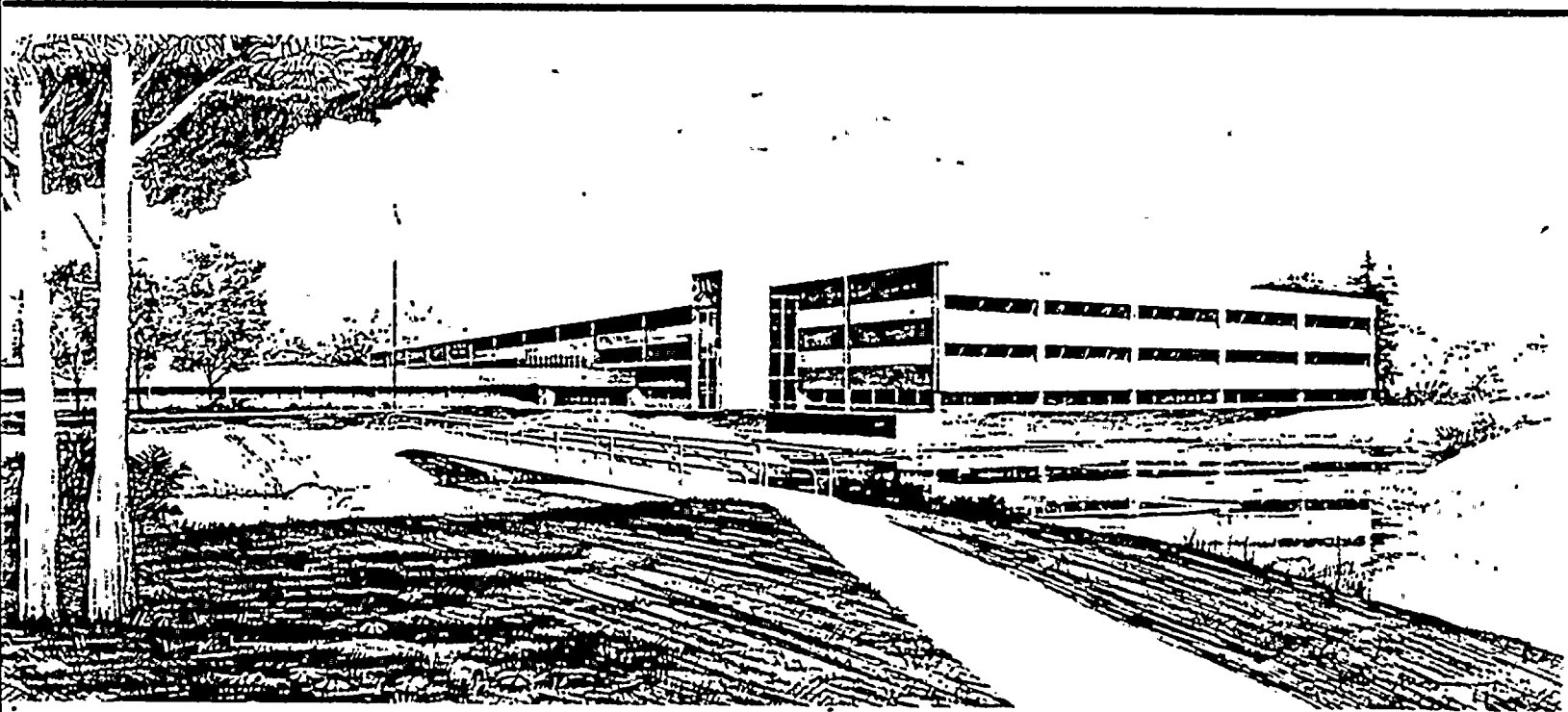


DEFINITION OF OPERABLE
NINE MILE POINT NUCLEAR STATION UNIT 1

F. G. Farmer
J. W. Stoffel

Idaho National Engineering Laboratory
Operated by the U.S. Department of Energy



This is an informal report intended for use as a preliminary or working document

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F. G. Farmer
J. W. Stoffel

EG&G Idaho, Inc.
Idaho Falls, Idaho 83415

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ABSTRACT

This report reviews the extent of compliance of proposed and existing Nine Mile Point Unit 1 Technical Specifications with clarifications of the definition and application of the term OPERABLE which have been required by the U.S. Nuclear Regulatory Commission.

FORWARD

This report is supplied as part of the "Selected Operating Reactors Issues Program (III)" being conducted for the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Division of Licensing, by EG&G Idaho, Inc., NRC Licensing Support Section.

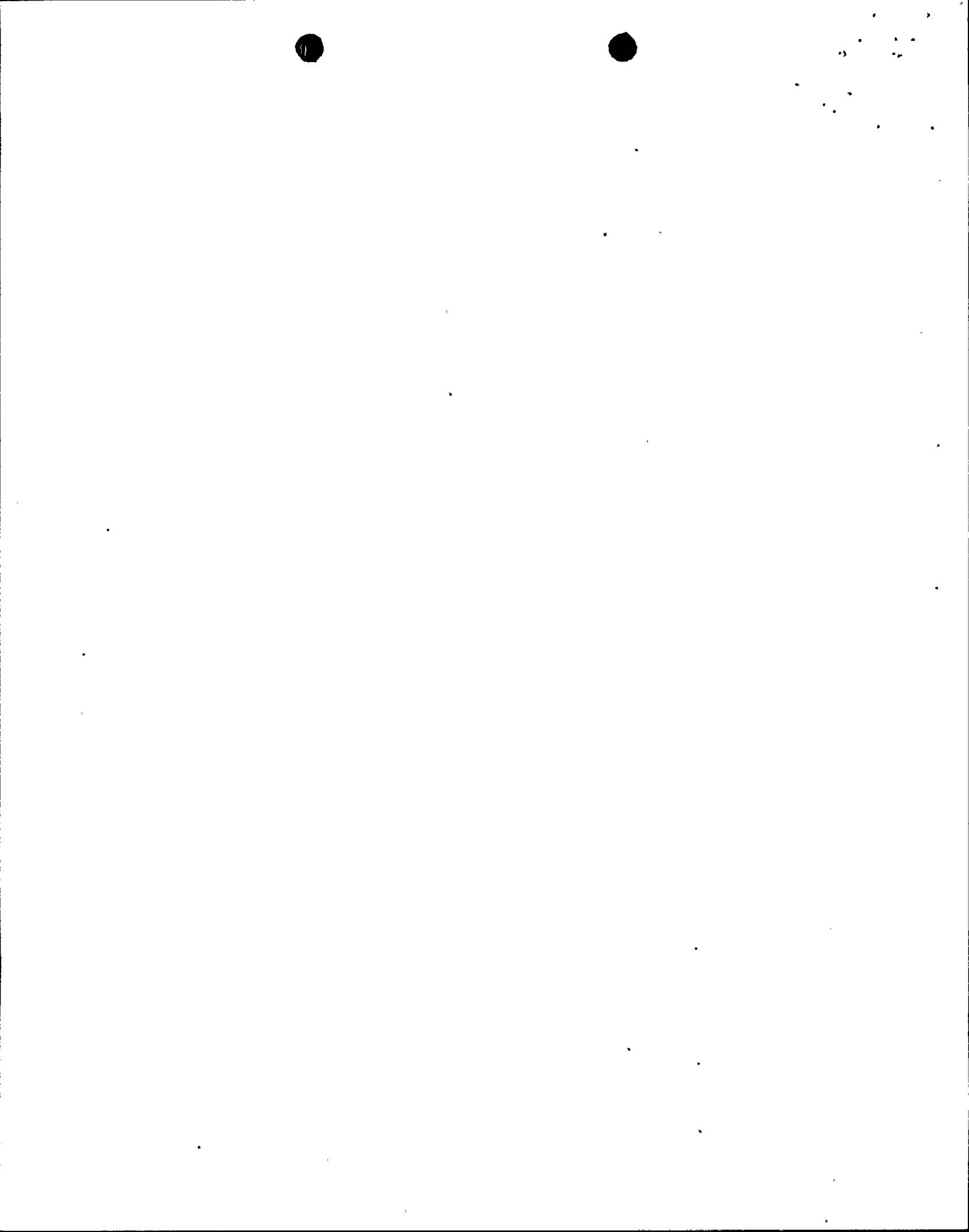
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DEFINITION OF OPERABLE, NINE MILE POINT NUCLEAR STATION UNIT 1

1. INTRODUCTION

On April 10, 1980, the Nuclear Regulatory Commission (NRC) issued a generic letter to all Power Reactor Licensees which clarified the term OPERABLE and identified portions of the Model Technical Specifications (MTS) which are recommended to assure that safety systems remain OPERABLE within the limits of the single failure criterion.¹ In that letter the NRC requested that Licensees review their Technical Specifications (TS) and submit such proposed changes as were necessary to incorporate the requirements of the MTS.

On May 20, 1980, Niagara Mohawk Power Corporation responded to the generic letter by proposing an amendment to the Nine Mile Point Unit 1 Technical Specifications.³ EG&G Idaho, Inc., has reviewed the proposed TS amendment and the existing TS. This report provides an evaluation of those TS and the amendment for conformation to the criteria established by NRC.

2. REVIEW CRITERIA

The review criteria for this task are contained in NRC's April 10, 1980, letter and in reference 2 and are summarized below.

Definition of OPERABLE

A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

Limiting Condition for Operation

When a Limiting Condition for Operation is not met because of circumstances in excess of those addressed in the specification, except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in a MODE in which the Specification does not apply by placing it, as applicable, in:

1. At least STARTUP within the next 6 hours,
2. AT least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual Specifications.

When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered OPERABLE for the purpose of satisfying the requirements of its applicable Limiting Condition for Operation, provided: (a) its corresponding normal or emergency power source is OPERABLE; and (b) all of its redundant system(s), subsystem(s), train(s), component(s) and device(s) are OPERABLE, or likewise satisfy the requirements of this specification. Unless both conditions (a) and (b) are satisfied, within two hours action shall be initiated to place the unit in at least STARTUP within 6 hours, in at least HOT SHUTDOWN within the next 6 hours, and in at least COLD SHUTDOWN within the following 24 hours. This specification is not applicable in MODES 5 or 6.

3. DISCUSSION

The amendment proposed by Niagara Mohawk redefines the term OPERABLE. The new definition is almost exactly that contained in the MTS. The proposed amendment also revises the Limiting Conditions for Operation (LCOs) to include "Operability Requirements" which are identical to those in the MTS except that, rather than specifying required reactor modes and time limits in the general "Operability Requirements," required modes and time limits are identified in individual, system specifications. A review of the LCOs for individual safety systems has been conducted and has determined that, as redundancy in safety systems is reduced by failure or maintenance, additional surveillance is required and time limits for return to full operability are established.⁴ Failure to meet the time limits or surveillance requirements requires the licensee to shut down within the time limits of the NRC criteria.

4. CONCLUSION

The licensee's proposed amendment to the Nine Mile Point Unit 1 TS provides adequate clarification of the term OPERABLE as it applies for ESF systems to support system outages or multiple outages of redundant components.

5. REFERENCES

1. NRC letter, D. G. Eisenhut, to All Power Reactor Licensees, dated April 10, 1980.
2. NRC internal memorandum, S. Miner to S. Varga, et al., "Definition of Operability--Multi-Plant Item D-17", dated March 26, 1981.
3. LeBouf, Lamb, Leiby & MacRae letter, E. B. Thomas, to NRC, H. R. Denton, dated May 20, 1980.
4. Technical Specifications for Nine Mile Point Unit 1, revised through Amendment 45.

