

# PRIORITY 1

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 TERRY,C.D.      Niagara Mohawk Power Corp.  
 RECIP.NAME      RECIPIENT AFFILIATION  
                                  Document Control Branch (Document Control Desk)

SUBJECT: Part 21 rept re discovery that rept used to determine svc life of various Agastat GP series relays erroneous. Caused by utilization of electrical characteristics of relay bobbin matl. Relays replaced & use of rept discontinued.

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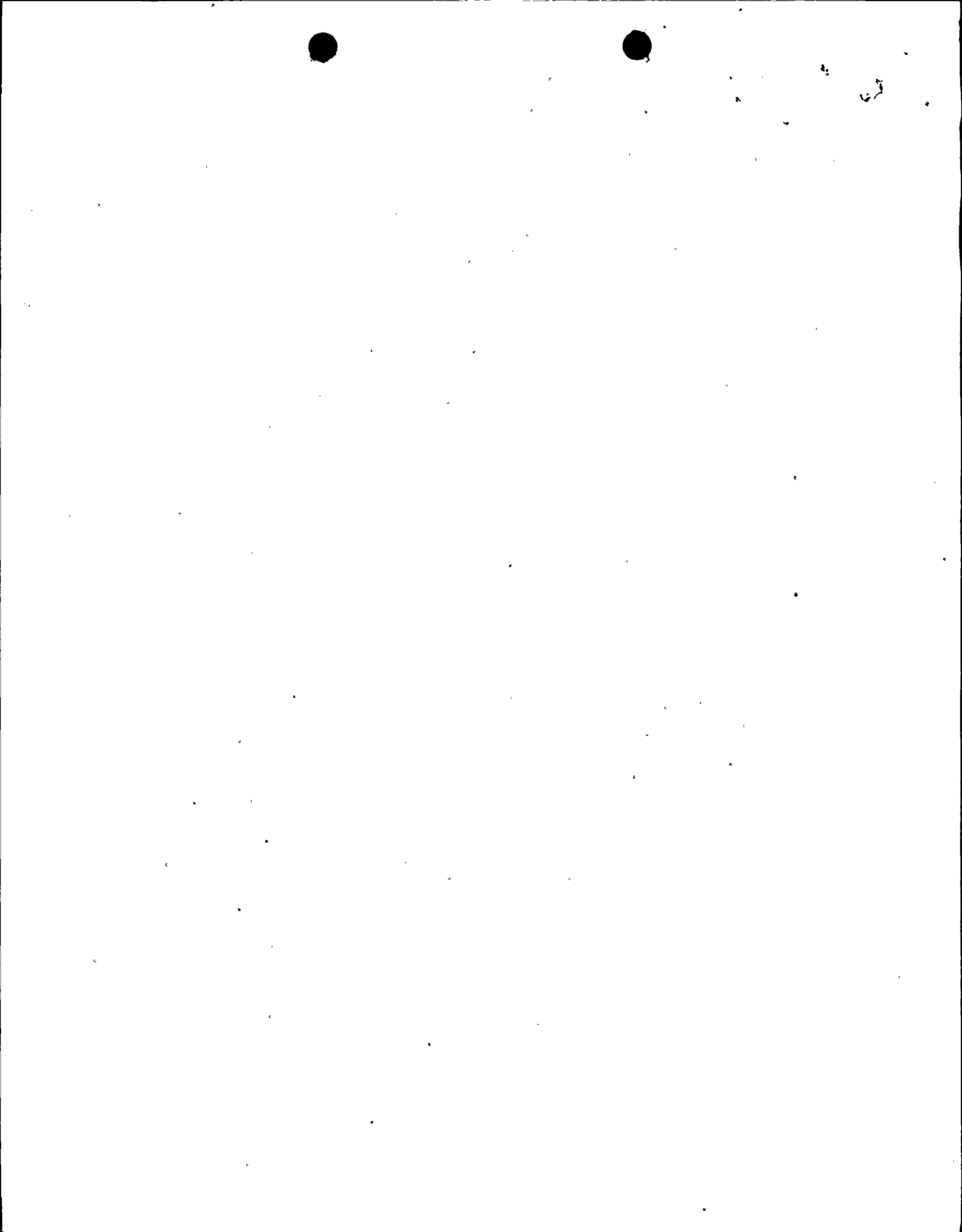
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IAI



CARL D. TERRY  
Vice President  
Nuclear Engineering

June 23, 1995  
NMP1L 0955

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:     Part 21 - Wyle Laboratories Report**

Gentlemen:

Pursuant to 10CFR Part 21, Reporting of Defects and Noncompliance, Niagara Mohawk is reporting a deviation which could have created a substantial safety hazard. Niagara Mohawk had previously notified the Commission of this issue on May 26, 1995, via telephone and facsimile. The attached report contains the information required by 10CFR21.21(c)(4).

Very truly yours,



C. D. Terry  
Vice President - Nuclear Engineering

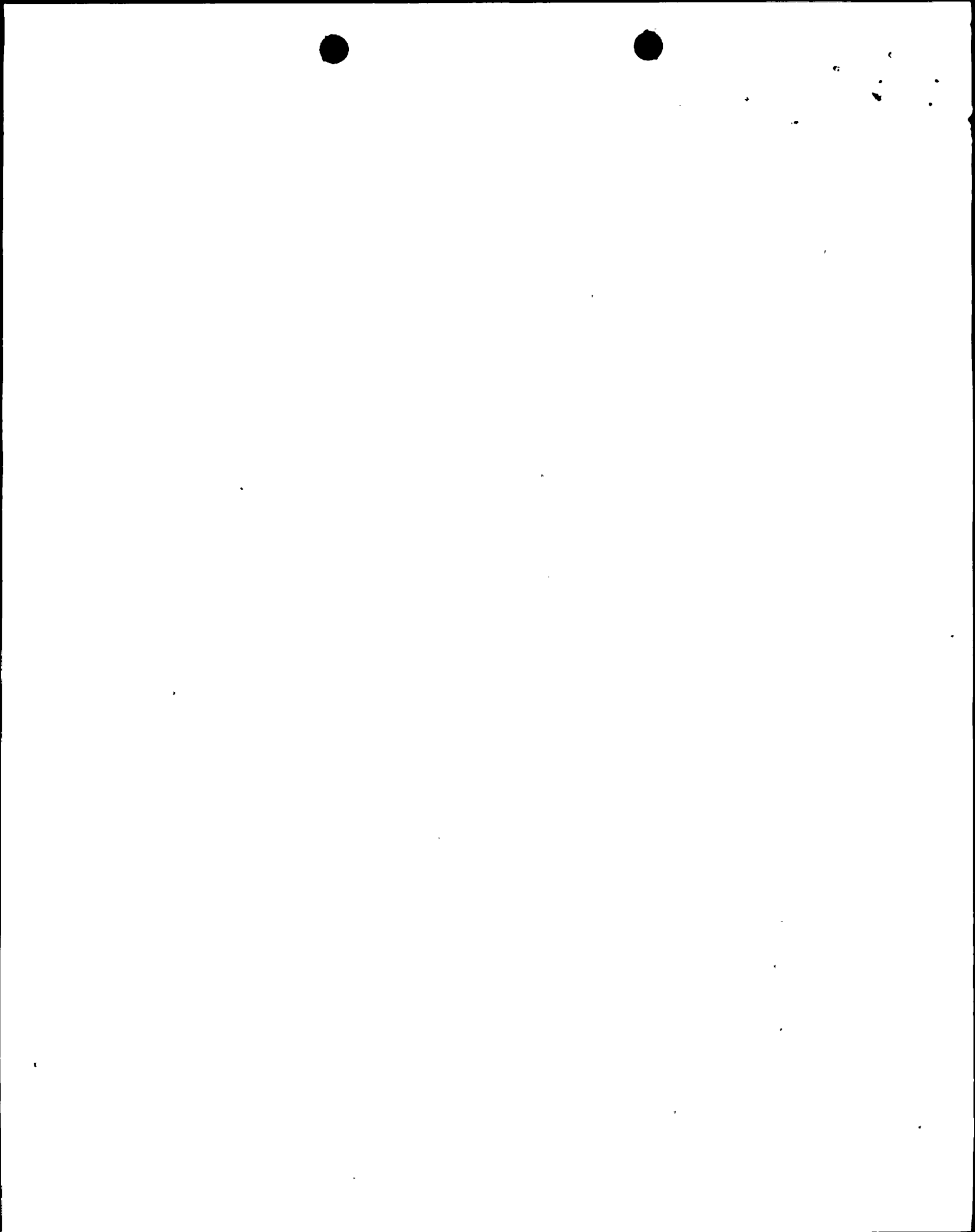
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xc:   Regional Administrator, Region I  
      Mr. L. B. Marsh, Director, Project Directorate I-1, NRR  
      Mr. G. E. Edison, Senior Project Manager, NRR  
      Mr. B. S. Norris, Senior Resident Inspector  
      Records Management

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## ATTACHMENT

1. *Name and address of the individual or individuals informing the Commission.*

Mr. Carl D. Terry  
Niagara Mohawk Power Corporation  
Nine Mile Point Nuclear Station  
P. O. Box 63, Lake Road  
Lycoming, NY 13093

2. *Identification of the facility, the activity or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.*

Wyle Laboratories Report 17655-ARY-1.1, Revision A, dated March 31, 1988, erroneously calculated the service life of various Agastat GP series relays at a non-conservative 26.3 years.

3. *Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.*

The qualification report for the Agastat GP series relays was provided by Wyle Laboratories of Huntsville, Alabama.

4. *Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.*

Niagara Mohawk has discovered that the report used to determine the service life of various Agastat GP series relays at Nine Mile Point Unit 1 was erroneous. The report, Wyle Laboratories Report 17655-ARY-1.1, Revision A, dated March 31, 1988, incorrectly calculated the service life at 26.3 years. The report utilized the electrical characteristics of the relay bobbin material in determining the activation energy instead of the mechanical properties of the Zytel material. Consequently, the calculated service life and the relay changeout frequency were non-conservative.

The Wyle Laboratories Report has been utilized for various deenergized relays at Nine Mile Point Unit 1 since original issuance of the report on September 19, 1986. From April 9, 1993 until April 1995 the use of the report was expanded to include energized relays located in various plant systems including the core spray system, reactor protection system, and ATWS/ARI system. Due to the nature of the defect in the report, the basic components impacted by the defect are limited to these energized relays.



After discovery of the defect and further review of the safety functions of the energized relays, it has been determined that all of the energized relays are either safety-related passive, by which the report would be conservative, or can be excluded from the EQ program based on engineering analysis. For those energized relays that are now excluded from the program, subsequent testing of the as found conditions has confirmed that no installed relays were inoperable. Therefore, the defect in the Wyle Laboratories report did not cause a substantial safety hazard.

However, since the potential existed that the energized active relays could have remained in the plant past their actual service life, there was the potential that the relays could degrade and render safety-related systems inoperable. Therefore, a potential substantial safety hazard did exist, necessitating this report.

5. *The date on which the information of such defect or failure to comply was obtained.*

Niagara Mohawk identified the defect on March 29, 1995, as a potential Part 21 violation. An investigation was conducted in accordance with Nuclear Licensing Procedure NLAP-IRG-140.

6. *In the case of a basic component which contains a defect or fails to comply, the number and location of all such components in use at, supplied for, or being supplied for one or more facilities or activities subject to the regulations in this part.*

The report identified with the defect is Wyle Laboratories Report 17655-ARY-1.1, Revision A, dated March 31, 1988. No other Wyle Laboratories Reports have been discovered with this same defect.

7. *The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.*

Immediate corrective action by Niagara Mohawk was to replace the subject energized Agastat GP relays and to discontinue use of the Wyle Laboratories Report. The Agastat relays currently in the EQ program (safety-related passive) have been assigned a conservative service life. Maintenance requirements of the remaining Agastat relays (non-EQ) are being evaluated.

8. *Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.*

The activation energy used in calculating a component's service life should be based on the appropriate material characteristics.

