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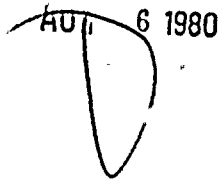
ACCESSION NBR: 8008050155 DOC. DATE: 80/07/30 NOTARI D: NO DOCKET #
 FACIL: 50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe 05000220
 AUTH. NAME AUTHOR AFFILIATION
 LEMPGES, T. E. Niagara Mohawk Power Corp.
 RECIP. NAME RECIPIENT AFFILIATION
 DENTON, H. R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Responds to Section 2.1.6a of NUREG-0578, re integrity of sys outside containment. Revises 791231 program for reducing leakage to use only helium tracer in air or gas filled sys & only visual detection for liquid filled sys.

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MEMORANDUM

TO: [Name]

FROM: [Name]

SUBJECT: [Subject]

[Main body of the memorandum containing the detailed report or discussion]

July 30, 1980

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulations
United States Nuclear Regulatory Commission
Washington, D.C. 20555

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

Dear Mr. Denton:

This letter is in response to Section 2.1.6a of NUREG-0578 concerning the integrity of systems outside the containment. Position 1.b states "Measure actual leakage rates with system in operation and report them to the NRC".

In our letter of December 31, 1979, we outlined a program for reducing the leakage of selected systems outside the containment to as low as practical limits. The program proposed a combination of testing using a Helium tracer and visual inspection. It was found that for air or gas filled systems, the helium tracer provided a very sensitive detector. However, for the liquid filled systems, the leak detection by the visual method was more sensitive. Attempts at helium leak detection in the liquid filled systems will be discontinued. Attached are summary results to date in accordance with the proposed program.

Very truly yours,

Thomas E. Lempges

Thomas E. Lempges
Vice President - Nuclear Generation

mtm
Attachments

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RESULTS OF LEAKAGE TEST

REQUIRED BY SECTION 2.1.6a OF NUREG-0578

1. Section 40 - Core Spray

Completed visual examination during Quarterly Flow Test
N1-ST-Q1 - February 12, 1980

- a. #111 pump packing 1 to 2 drops per second.
- b. #111 suction valve 1 to 3 drops per second.
- c. Normal leakage at other pump packings.

2. System 80 - Containment Spray

Completed visual examination during Quarterly Flow Test
N1-ST-Q6 - February 13, 1980

- a. #111 system flow element less than 1 drop per minute.
- b. #121 pump packing less than 1 drop per second.
- c. Normal leakage other pump packings.

3. System 39 - Emergency Condenser

- a. Visual examination made March 1980.
- b. Several unmeasured leaks were observed resulting in corrective action work requests.
- c. No leaks were observed following maintenance.

4. System 48 - Vacuum Relief System

This system will be tested during the integrated leak rate test of about April 1981.

5. System 201.2 - Primary Containment H₂-O₂ Monitor System

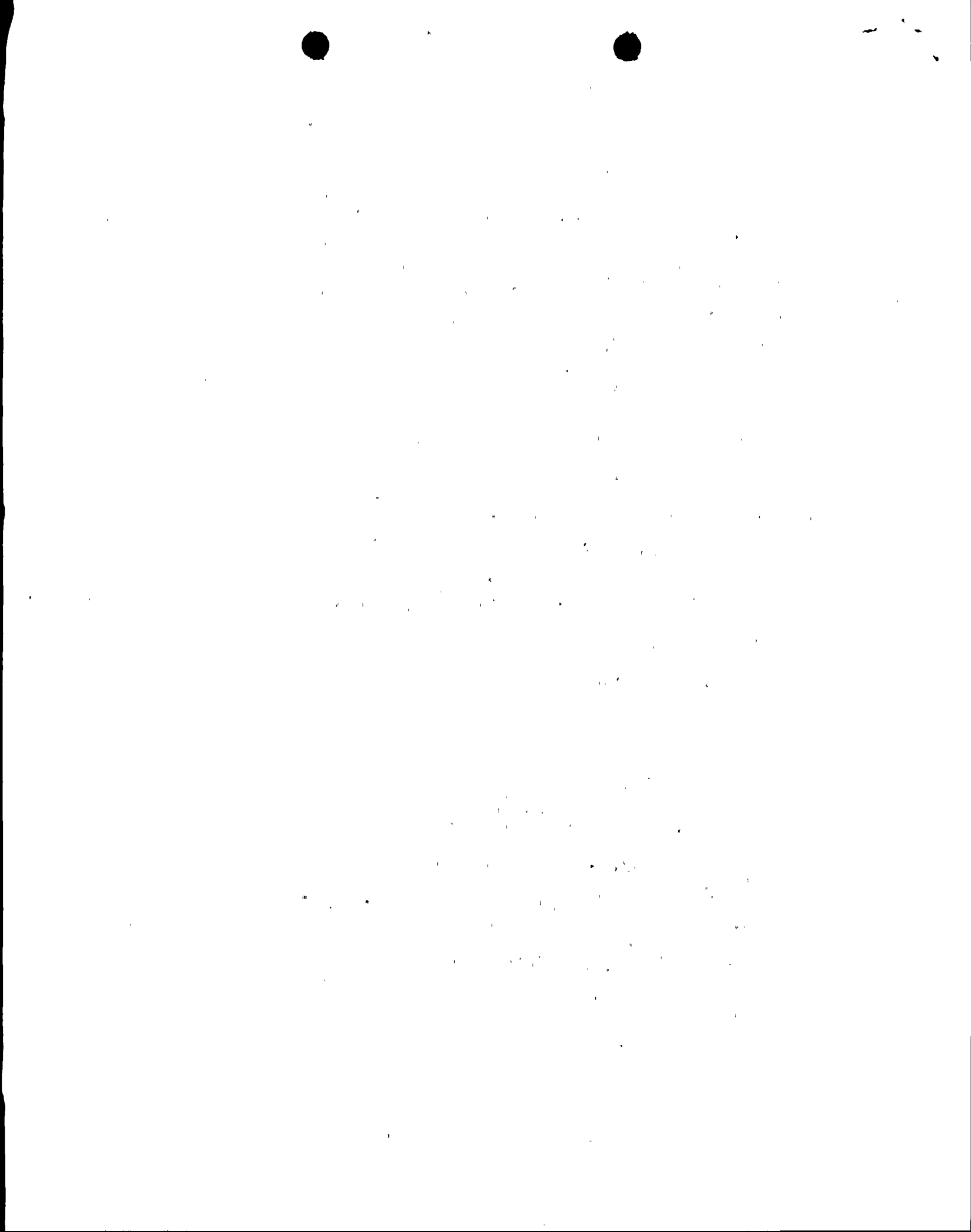
This system was tested in March 1980 using a helium tracer. A total of 15 leaks were found at tubing and fitting connections. Eleven of these were immediately repaired and checked tight. The calculated leak rate of the remaining four totalled 1.59×10^{-4} CFM.

6. System 35 - Reactor Water Cleanup Let Down Mode

A visual inspection was made in March 1980. There were no observable leaks.

7. System 110 - Reactor Water Sampling

A visual examination was made in March 1980. There were no observable leaks.



8. System 38 - Shutdown Cooling

Visual examination of this system will be made at first occasion for use.

NOTE

In May 1980, a leak test of the containment spray system using the helium tracer entrained in water was conducted for comparison with the visual test. The minimum detectable leak rate using helium was .0008 gpm.

On the basis of 20 drops per milliliter, an observed leak of 1 drop every 3 to 4 minutes came to 3.8×10^{-6} gpm leak. No helium was detected for this leak. It was then concluded that visual observation of leakage in water systems is more sensitive than the entrained helium test.

