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RECIP. NAME RECIPIENT AFFILIATION
ADENSAM, E. G. BWR Project Directorate 3

SUBJECT: Forwards changes to FSAR App 15E, "Complete Core Offload/ Reload Procedure Guidelines," in response to D Florek comments. Changes will be included in subsequent amend.

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NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

July 9, 1986
(NMP2L 0772)

Ms. Elinor G. Adensam, Director
BWR Project Directorate No. 3
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Washington, DC 20555

Dear Ms. Adensam:

Re: Nine Mile Point Unit 2
Docket No. 50-410

Enclosed are changes to Appendix 15E of the Final Safety Analysis Report, "Complete Core Offload/Reload Procedure Guidelines." These changes will be included in a subsequent amendment.

The changes on pages 15E.3-15, 15E.3-11 and 15E.6-1/6-2 are provided in response to a comment made by Don Florek of Region I. Mr. Florek wanted two source range monitors on scale when performing the shutdown margin test. Niagara Mohawk proposes loading an additional two rings of fuel in order to satisfy Mr. Florek's request. These proposed changes were discussed with Mary Haughey and Carl Schulten of your staff.

Changes on page 15E.5-9/5-10 are made in order to make the Appendix 15E submittal consistent with the Final Draft Technical Specifications.

Very truly yours,

C. V. Mangan
Senior Vice President

WB:ja
1767G

Enclosure

xc: R. A. Gramm, NRC Resident Inspector
Project File (2)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
Niagara Mohawk Power Corporation	)	Docket No. 50-410
(Nine Mile Point Unit 2)	)	

AFFIDAVIT

C. V. Mangan, being duly sworn, states that he is Senior Vice President of Niagara Mohawk Power Corporation; that he is authorized on the part of said Corporation to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that all such documents are true and correct to the best of his knowledge, information and belief.

C V Mangan

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 9th day of July, 1986.

Janis M. Macro
Notary Public in and for
Onondaga County, New York

My Commission expires:
JANIS M. MACRO
Notary Public in the State of New York
Qualified in Onondaga County No. 4784555
My Commission Expires March 30, 1987

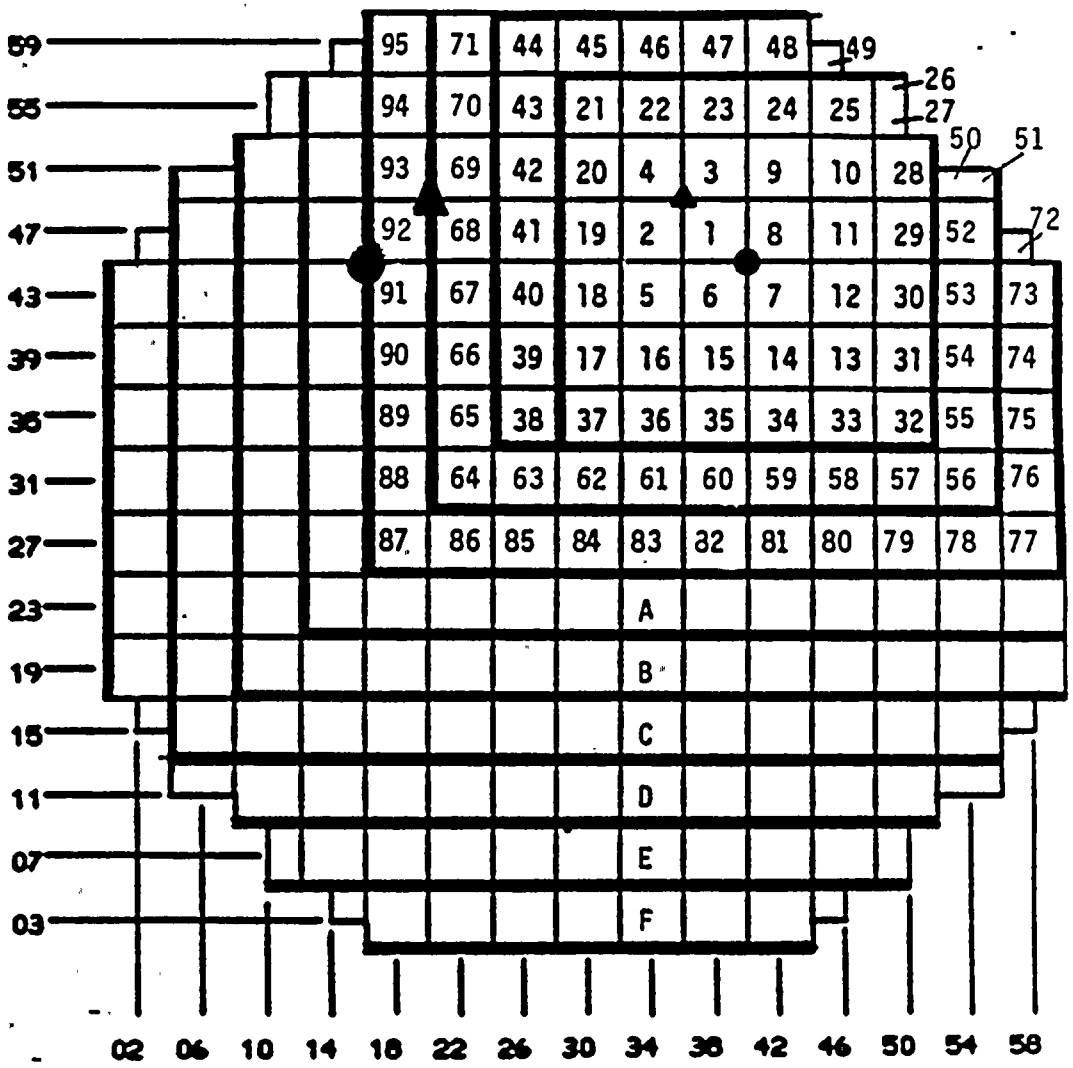
rate (0.7 cps) during the loading of the initial 16 assemblies is recommended.

To further support this exemption, a core reactivity calculation was performed for the initial 16 assemblies loaded to demonstrate that even with all of the control rods withdrawn, the partial loading would remain subcritical with margin. The fuel assembly types and loading configuration of the 16 assemblies were based on the proposed fuel loading procedure of Figure 15E.3-3 and are shown in Figure 15E.3-5. For a moderator temperature of 20°C, the resulting effective neutron multiplication factor was 0.99. This analysis demonstrates that the initial 16 assembly loading will remain subcritical by 1.0% Wk even if the control rods are withdrawn, thus further assuring that the SRM monitoring requirements can be exempted during this portion of the fuel loading procedure. Similar exemptions of SRM monitoring requirements (for fewer assemblies) during fuel loading have been approved by the NRC for several reload licenses (References 1, 6 and 7).

After the initial 16 assemblies are loaded and an SRM is on scale, the fuel loading will continue in a spiral fashion as shown in Figure 15E.3-3. Since only one SRM will initially be on scale, a portable source will be used to periodically demonstrate operability of the SRM's located in areas with no fuel. One of the SRM's will be required to maintain continuous visual indication in the control room until other SRM's are on scale. Use of a portable source to demonstrate operability of the remaining SRM's has previously been approved by the NRC for other plants (References 1 and 7). The portable source is widely used in the nuclear industry as a bugging source for detector calibration and is an easy device to operate with no complex or unsafe maneuvers required.

When 362 fuel assemblies have been loaded (Step 95 in Figure 15E.3-3), an SRM will be surrounded by fuel and indicating greater than 0.7 cps. At this time, a partial core shutdown margin test will be performed as required by Regulatory Guide 1.68. Core physics calculations for the off-center partial SDM test have been performed for the proposed fuel loading sequence (Reference 8). After the partial core SDM test, the

Figure 15E.3-3 - Initial Core Fuel Loading Sequence



▲ = Alternate Source Location

● = SRM Detector Locations

A-F = Loading Regions

Table 15.E.5-4 - Technical Specification Modifications - Table 3.3.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION

TABLE NOTATIONS

(a) A channel may be placed in an inoperable status for up to two hours for required surveillance without placing the Trip System in the tripped condition provided at least one OPERABLE channel in the same Trip System is monitoring that parameter.

(b) The shorting links shall be removed from the RPS circuitry prior to and during fuel loading or any time any control rod is withdrawn from a core cell containing fuel assemblies.

(c) An APRM channel is inoperable if there are less than two LPRM inputs per level or less than 14 LPRM inputs to an APRM channel.

(d) This function is not required to be OPERABLE when the reactor pressure vessel head is removed per Specification 3.10.1.

(e) This function shall be automatically bypassed when the reactor mode switch is not in the Run position.

(f) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.

(g) Also actuates the standby gas treatment system.

(h) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

(i) This function shall be automatically bypassed when turbine first stage pressure is less than or equal to 129.6* psig, equivalent to THERMAL POWER less than 30% of RATED THERMAL POWER.

(j) Also actuates the EOC-RPT system.

*To allow for instrument accuracy, calibration and drift, a setpoint of less than or equal to 119 psig turbine first stage pressure shall be used.

6. REFERENCES

1. Amendment No. 27 to Facility Operating License No. DPR-63, Niagara Mohawk Power Corp., Nine Mile Point Station Unit No. 1, Docket No. 50-220, March 2, 1979.

2. "Recommended Technical Specifications for Fuel Loading," Service Information Letter No. 372, General Electric Company, June 1982.

3. "Steady State Nuclear Methods," General Electric Company Licensing Topical Report, May 1985 (NEDO-30130-A).

4. "Nuclear Energy Business Operation Quality Assurance Program Description," General Electric Company, March 1985 (NEDO-11209, Revision 5).

5. Letter, G. G. Zech (NRC) to J. M. Case (GE), "NRC Acceptance of Revised General Electric Quality Assurance Topical Report," April 19, 1985.

6. Amendment No. 66 to Facility Operating License No. DPR-57, Georgia Power Co. et al., Edwin I. Hatch Nuclear Station Unit No. 1, Docket No. 50-321, June 12, 1979.

7. Amendment No. 5 to Facility Operating License No. NPF-29, Grand Gulf Nuclear Station Unit No. 1, Docket No. 50-416, October 12, 1985.

8. Startup Data Databook, General Electric Company (23A1840).

9. J. F. Klapproth, "Continuous Control Rod Withdrawal Transient in the Startup Range," General Electric Company, April 1978 (NEDO-23842).