Docket No.: 50-410

APPLICANT: Niagara Mohawk Power Corporation (NMPC)

FACILITY: Nine Mile Point Nuclear Station Unit 2

SUBJECT: SUMMARY OF MEETING HELD WITH NIAGARA MOHAWK POWER CORPORATION ON JUNE 9, 1984, ON EMERGENCY PREPAREDNESS

On June 8, 1984, the NRC staff met with representatives of NMPC and Stone and Webster Engineering Corporation (SWEC) in Bethesda, Maryland to discuss emergency preparedness at Nine Mile Point 2 (NMP-2)

Enclosure 1 to the April 16, 1984, letter to Gerald K. Rhode, NMPC form A. Schwencer, NRC requesting additional information and commitments (Enclosure 1 to this memorandum) was used as the basis for discussion. Each of the items listed in Enclosure 1 of that letter were discussed at the June 8 meeting and are addressed in Enclosure 2 to this memorandum.

Enclosure 3 contains a list of meeting attendees.

Summary statements for each of the emergency preparedness procedures and a copy of each of the procedures need to be submitted for NRC review. NMPC will be able to submit all but a few in August, 1984.

Mary F. Haughey, Project Manager Licensing Branch No. 2 Division of Licensing

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<u>NRC Participants</u> Michael Gaitanis Mary Haughey Jerry Simonds Richard Van Niel

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#### Nine Kile Point 2

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## ENCLOSURE 1

# REVIEW COMMENTS ON NINE MILE POINT UNIT 2. EMERGENCY PLAN

The following comments apply to the Nine Mile Point Unit 2 Emergency Plan (hereinafter called the plan), and identify in parentheses the applicable evaluation criteria of NUREG-0654/FEMA-REP-1, Rev. 1 (Regulatory Guide 1.101 Revision 2).

#### A. \_\_ ASSIGNMENT OF RESPONSIBILITY

The letters of agreement in Appendix A.are dated around December 1981 to January 1982. These letters should be reviewed and certified for currency. (A.3) P.4)

## B. ONSITE EMERGENCY ORGANIZATION

There is a discrepancy between Fig. 5.3 of the plan and Table B-1 of NUREG-0654 for onshift staffing. Fig. 5.3 lists six people covering fourteen functional positions, versus ten people covering seventeen functional positions in Table B-1. There also appears to be a discrepancy between Fig. 5.3 of the plan and the narrative in paragraph 5.1 of the plan for onshift staffing; paragraph 5.1 lists thirteen people, versus six people in Fig. 5.3. Revise onshift staffing to more closely reflect the guidance of Table B-1 of NUREG-0654. (B.5; NUREG-0737, Sup. No. 1, Table 2).

#### C. EMERGENCY RESPONSE SUPPORT AND RESOURCES

The plan does not identify approximate arrival times of Federal agencies should they be requested during an emergency. (C.1.b) The plan should be revised to include this information.

#### D. EMERGENCY CLASSIFICATION SYSTEM

See Appendix 1 to this enclosure for comments on the emergency classifi-. cation system.

#### E. NOTIFICATION METHODS AND PROCEDURES

10 CFR 50, Appendix E, Section IV.D, specifies that State/local officials have the capability to make a public notification decision promptly (within about 15 minutes) on being informed by the plant operator of an emergency condition. Describe the provisions in the offsite plans and procedures for the Nine Mile Point facility which demonstrate that the offsite officials have the capability to meet this design objective. (E.6).

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#### H. EMERGENCY FACILITIES AND EQUIPMENT

Provide additional information to indicate the conformance of the Emergency Operations Facility with the requirements of Table 1 of Supplement No. 1 to NUREG-0737.

- I. ACCIDENT ASSESSMENT
  - The plan contains a plot of containment radiation level/source term versus time for a source term inventory for Unit 1. Provide sufficient detail to correlate this information with Unit 2 or provide a similar plot for Unit 2.
  - The containment high range radiation monitor is a fundamental indicator 2. of plant/core conditions. Readings from these monitors should be used . as part of the emergency classification and action level scheme, in particular as an indicator of extensive core damage that would be associated with General Emergencies and the need for offsite protective actions. However, unless the relationship of the containment monitor readings to a range of core conditions has been predetermined, they would provide little useful information: A review of your emergency plan and procedures indicates that such information has not been pro-Therefore, we request that you provide the relationship of the vided. containment high range radiation monitor readings for Nine Mile Point to the radioactivity uniformly dispersed in the containment atmosphere for a range of degraded core condition source terms such as 100% coolant activity, 20% and 100% gap activity, and 10% meltdown release fraction. Selected values from this relationship should be used as emergency action levels (EALs) to categorize the severity of a radiological incident.
  - 3. Describe the means for relating field contamination levels to dose rates for key isotopes as listed in Table 3 of NUREG-0654.

## J. • PROTECTIVE RESPONSE

- 1. The means and time required to warn or advise transients who may be inside the controlled area is not specifically addressed. (J. 1.d) This information should be included in the site emergency plan.
- Provide evacuation Time Estimates for the ten mile EPZ, using the guidance provided in Appendix 4 of NUREG-0654. (J.8)
- 3. The plan fails to include information on the protection factors expected from local residential units or other facilities in case evacuation is impractical. This information should be included in the emergency plan. (J. 10.m)

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## RADIOLOGICAL EXPOSURE CONTROL

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The plan does not specificlly indicate if provisions have been made for decontamination of evacuated onsite personnel who may have skin contaminated with radioiodine. In Section 7.4.4 of the plan reference is made to Emergency Plan Implementing Procedure EPP-15. This procedures should be provided for review. (K.7)

# M. RECOVERY AND RE-ENTRY PLANNING AND POST-ACCIDENT OPERATIONS

The plan does not establish a method for periodically estimating total population exposure. This method should be identified and described in the emergency plan. (M.4)

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#### APPENDIX 1 Comments on Planning Standard D Emergency Classification System

The emergency plans for nuclear power reactors are required by 10 CFR 50.47 (b) to have a standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters. As specified in 10 CFR 50, Appendix E, Section IV, and NUREG-0654/FEMA-REP-1, Revision 1, emergency action levels (EALs) are observable and measureable indicators of plant status and are based not only on onsite and offsite radiation monitoring information but also on readings from a number of sensors that can indicate a poten-, tial emergency. Containment pressure and the response of safety injection systems are examples to consider.

The EALs are presented in Section 4.0 of the site emergency plan, dated December 1982. A review of these EALs indicates that, in general, more emphasis should be placed on using indicators of plant condition (core, containment, and engineered safety features) to initiate predetermined protective action recommendations for severe core damage events. Attachment 1 to this enclosure depicts the decision making process specified in Appendix 1 of NUREG-0654 and was transmitted to the applicant as IE Information Notice 83-28 dated. May 4, 1983. The EALs on which the decisions are made should be clearly identified in the emergency plan and procedures. Provide a discussion of how IE Information Notice 83-28 has been incorporated into the NMPNS emergency classification system.

Provide responses as requested to the following comments on the emergency classification system, or provide a justification for not performing each of the actions requested:

#### Unusual Event

<u>Initiating Condition 5</u> (Exceeding primary system leak rate). List EALs that include the instrumentation or parameters that would be used to evaluate the reactor coolant system leakage. These EALs should consider leakage inside of primary containment such as "drywell floor drain sump high leak alarm" or "excessive drywell equipment drain sump pump running times," as well leakage outside of primary containment with EALs based on reactor building equipment drain and floor drain sump level.

<u>Initiating Condition 8</u> (Loss of containment integrity). List the applicable technical specifications in the EAL set, concerning such things as air locks or isolation valves, etc.

<u>Initiating Condition 9</u> (Loss of engineered safety feature). List the applicable technical specifications.

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Initiating Condition 10 (Fire within plant). Change the EAL to state that "communication to the Shift Supervisor that a fire lasting longer than 10 minutes is occurring." The Shift Supervisor has the responsibility for declaring the emergency. An EAL referencing fire detection instrumentation should also be included.

<u>Initiating Condition 12</u> (Security threat). State that the security threat will be communicated to the Shift Supervisor who has the responsibility for declaring the Unusual Event.

<u>Initiating Condition 13b</u> (Flood, low water). List the <u>usual</u> high and low lake water levels that would initiate declaration of an Unusual Event.

<u>Initiating Condition 15</u> (Other plant conditions). Add "Shift Supervisor's opinion that" to the beginning of EAL.

ALERT .

<u>Initating Condition 4</u> Address in more detail a steam line break <u>or</u> an <u>MSIV malfunction causing significant leakage</u>.

Initiating Condition 5 (Primary coolant greater than 50 gpm). List the instrumentation or parameters used in indicating the rate of use cr integrator readings for reactor coolant leakage. The EALs should cover leakage inside and outside of containment such as will "excessive drywell equipment drain pump running times" or "a trip of the reactor water cleanup system leak monitor."

Initiating Condition 9 Address this condition.

Initiating Condition 10 This EAL set is not conservative in that any of the conditions listed is sufficient cause to declare an alert. EAL set should be ORed instead of ANDed.

Initiating Conditions 12 (Fuel damage accident). The second EAL should specify how a release of radioactivity to the reactor building will be indicated (ie, add "as indicated by a high alarm or radiation monitor(s)")

Initiating Condition 17b (Flood, low water). List the lake water designlevels (high and low) that would initiate declaration of an Alert.

Initiating Condition 19 (Other plant conditions). Add "Shift Supervisor's Opinion that" to the beginning of EAL.

Site Area Emergency

Initiating Condition 1 (Known LOCA greater than makeup pump capacity).' The EAL set is not conservative in that all the stated EALs must be met before declaring a Site Area Emergency. Revise this EAL set. The EAL "maintain" steamline isolation valve closure" is not necessary and should be dropped.

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Initiating Condition 2 Address this condition.

Initiating Condition 4 (BWR steam line break). The listed EALs should be "ORed". Include a "failure of MSIVs to close" EAL to adequately address this NUREG-0654 initiating condition.

Initiating Condition 8 (Complete loss of any function needed for plant hot shutdown). The EAL set does not adequately consider the minimum number of components that must be available to achieve hot shutdown, nor the methods available to do so. Revise this EAL set to include this information.

<u>Initiating Condition 11</u> (Fire compromising the function of safety systems). Any fire compromising the function of a safety system is reason for declaring a Site Area Emergency. It does not have to be a safety system required for shutdown as the EAL states. Revise this EAL.

Initiating Condition 15b (Flood, low water). List the high and low lake water design levels that would initiate declaration of a Site Area Emergency.

Initiating Condition 17 (Other plant conditions). The applicant should acc "Shift Supervisor's opinion that" to the beginning of the EAL.

Initiating Condition 18 (Evacuation of Control Room). An adequate EAL or indication that this initiating condition is occurring is the "Shift Supervisor's opinion" as the Shift Supervisor has the responsibility for declaring the Site Area Emergency.

## General Emergency

Initiating Conditions 1, 2, 3, 4, 6, & 7 The applicant does not have adequate EALs for any of the applicable NUREG-0654, Appendix 1 General Emergency Initiating Conditions. It is suggested that the applicant refer to the flowchart in Attachment 1 for guidance in developing appropriate protective action decisions. •

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FIGURE 1

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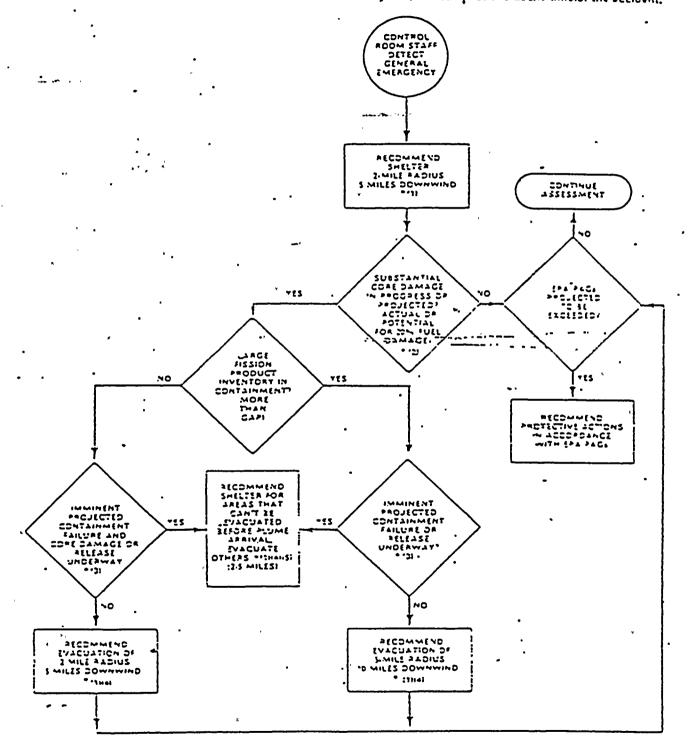
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## Attachment 1 IN 83-28 .-May 4, 1983 Page 1 of 1

## FLOW CHART FOR GENERAL EMERGENCY OFFSITE PROTECTIVE DECISIONS

The following actions will be based on predetermined observable instrumentation and plant status indicators iEALs) contained in the emergency plan and that have been reviewed by offsite officials. However, responsible offsite officials must decide on the leasibility of implementing the protective actions at the time of the accident.



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- \*13) SITUATIONS REQUIRING URGENT ACTION BY OFFSITE OFFICIALS IBased on Control Room Indicators. No Dose Projections Required -15-Minute Decisionmaking, Activation of Alerting System and EBS Message
- 1.21 Actual or projected release of 20% gad from bole or osa of physical control of the plant to invident
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Discussion of Each of the Open Items Addressed for the April 16, 1984, Letter on Emergency Preparedness at Nine Mile Point 2.

A. Assignment of Responsibility

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NMPC to submit procedures on updating.

B. Onsite Emergency Organization

NRC to review Table B-1 again after clarifications on functions and positions provided at meeting. Table B-1 does not seem to indicate sufficient number of people available onsite to cover all necessary functions.

C. Emergency Response Support and Resources

NRC requested estimated response time for federal agencies. NMPC relies on only one federal agency for Nine Mile Point emergency plan and have not received an estimated response time from them. NMPC will provide an estimated time.

D. Emergency Classification System (Appendix 1)

Unusual Event

**I.C.5** NMPC to provide

- I.C.8 NMPC to explain how technical specification and emergency procedure are to be used.
- I.C.9 Same as I.C.8.
- I.C.10 EPP-2 will respond to this concern.
- I.C.12 Notification of a security threat will be made to the Shift Supervisor.
- I.C.13b NMPC will explain why high/low lake level is not a problem.
- I.C.15 Plan will be revised to read "Emergency Director's opinion that".
- Alert
- **I.C.4** NMPC will provide clarification

I.C.5 NMPC will provide parameter indication

- I.C.9 NMPC will address this condition
- I.C.10 NMPC to provide justification, NRC will re-review
- I.C.12 NMPC to provide reference
- I.C.17b NMPC to provide justification
- I.C.19 NMPC will revise

Site Area Emergency

I.C.1 NMPC to provide justification

- I.C.2 NMPC to address
- I.C.4 NMPC to provide justification

I.C.8 NMPC to provide requested information

I.C.11 Loss of one train through fire will be considered a site emergency

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I.C.15b NMPC to provide justification

I.C.17 &

I.C.18 NMPC to revise

#### General Emergency

I.C.1,2,3,4,6 and 7 NMPC to provide explanation and clarification of chart

E. Notification Methods and Procedures

NMPC will provide flow chart and text describing state and county plans and showing plans will meet 15 minute time requirement.

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- F&G No NRC Comments
- H. Emergency Facilities and Equipment

New information to be submitted on new EOF

- I. Accident'Assessment
  - 1. NMPC will provide
  - 2. State and County precautions were discussed. NRC will re-review
  - Procedures (EPP-7 and EPP-8) are in progress. These procedures will be submitted by August, 1, 1984

#### J. Protective Response

- Warnings will be made by loudspeaker at the visitor's center and by siren on-site when necessary. NMPC will expand this section to discuss the areas and means of notification. The words "may be" will be deleted.
- 2. Information on evacuation time is to be sent to the region with copies to NRR.
- 3. Plan will be revised to summarize and reference procedure EPP-26.
- K. Radiological Exposure Control

Plan should summarize all procedures (as recommended by NUREG-0654). Appendix G is to be updated.

- L. No NRC comments
- M. Recovery and Re-entry Planning and Post-accident Operations

This will be covered by EPP-8

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# Emergency Preparedness Meeting Attendance

Name

Mary F. Haughey Michael J. Gaitanis Jerry Simonds G. Wilson Pat Volza Mike Stocknoff Richard Van Niel Norm Rademacher

# Organization

NRC - Licensing Project Mgr. USNRC NRC/DEPER/EPB Niagara Mohawk Niagara Mohawk Stone & Webster NRC/DEPER/IE Niagara Mohawk

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