May 25, 1988

Docket No. 50-220

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Mr. Charles V. Mangan
Senior Vice President
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

Dear Mr. Mangan:

SUBJECT: REQUEST FOR INFORMATION TO SUPPORT THE NRC MARK I CONTAINMENT ENHANCEMENT PROGRAM

REFERENCE: NINE MILE POINT UNIT 1

The NRC staff is planning to present to the Commission proposals for Mark I containment improvements. To assist us in presenting realistic, plant specific features in support of our recommendations, we request that you provide the information delineated in the enclosure, as it pertains to the Nine Mile Point Unit 1 facility. This enclosure was previously transmitted to you on May 20, 1988 via telecopy.

To meet our schedule for preparation of these proposals, we ask that your response be received by June 6, 1988. Should you have any questions regarding this request, please call me.

This letter is covered by Office Of Management and Budget, Clearance Number 3150-0011.

Sincerely,

Original signed by:

Robert A. Benedict, Project Manager
Project Directorate I-1
Division of Reactor Projects, I/II

Enclosure:
As stated

cc: See next page

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CVogan	RBenedict:dlg	RCapra
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Mr. C. V. Mangan
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station,
Unit No. 1

cc:

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Office of Management and Budget
Clearance Number 3150-0011*

DATA BASE FOR MARK I CONTAINMENT ENHANCEMENTS EVALUATION

A. ALTERNATE WATER INJECTION CAPABILITY

Identify and list all significant water sources which can be injected into the reactor vessel and/or containment under severe accident environments. For each source listed, provide a description of the pathway including the following information:

1. Power source for injection;
2. Rated flow and delivery pressure;
3. Where will the injection water be drawn from?;
4. Valve operator power source (AC/DC/Air/other)
5. If manual valve, describe its accessibility in postulated severe accident environments; and
6. List containment connections provided for water source hook up

B. ALTERNATE POWER SUPPLIES WHICH COULD BE MOBILIZED IN SEVERE ACCIDENT CONDITIONS

Identify and list all alternate power supplies which could be hooked up to the plant systems and can substitute for failed power in severe accident situations. For each identified source, provide the following information:

1. Fuel required to generate the alternate power;
2. Estimate the time it will take to align the alternate power supply with the plant systems; and
3. Estimate the duration of time the alternate power source would be operable in severe accident environment (at the rated power).

C. EMERGENCY VENTING CAPABILITY

Identify and list the vent paths which are suitable for emergency venting under severe accidents to achieve pressure control, hydrogen control and/or otherwise mitigate against the potential for containment failure. For each vent path provide the following information:

1. Size of the vent path (controlling size);
2. List the equipment which is likely to fail or otherwise made unavailable if the vent pipe or duct fails;
3. Vent path critical pressure, and expected flow rate of vented materials;
4. Power supply needed for vent operation (Air/Electrical/manual/other);

*This request is covered by Office of Management and Budget, Clearance Number 3150-0011 which expires December 31, 1989. Comments on burden and duplication may be directed to the Office of Management and Budget, Room 3208, New Executive Office Building, Washington, DC 20503.

5. Maximum operable pressure for containment isolation valves in the vent path;
6. Total length of the vent path;
7. Height of the vent release point for release to the atmosphere: and
8. Expected Impacts of vent operation (e.g. contamination of control structure, exposures to the operators).

D. PRIMARY CONTAINMENT SPRAY NOZZLES

In the event of a severe accident, alternate water sources can be routed to the containment spray system to suppress the pressure rise in the containment, and to scrub the fission products released in the case of core damaging accidents. Provide the following information for the containment sprays:

a. Drywell Sprays
   1. Number of spray nozzles,
   2. Nozzle diameter,
   3. Spray Design (single nozzles or nozzle clusters), and
   4. Spray capacity (flow rate); and

b. Wetwell Sprays
   1. Number of spray nozzles,
   2. Nozzle diameter,
   3. Spray Design, and
   4. Spray Capacity.

E. SECONDARY CONTAINMENT FIRE SUPPRESSION SYSTEM

Secondary containment fire spray system can provide a useful function of scrubbing the fission products, should the primary containment fail as a result of a core damage accident and release of radioactive materials to the secondary containment. Provide the following information on the fire suppression spray capability:

1. Location of the fire suppression spray;
2. Flow capacity of the fire protection water supply to the fire spray system;
3. Fire suppression power supply type and distance from the fire equipment; and
4. How can the fire suppression system be hooked up to the ECCS?

F. SURVIVABILITY OF AUTOMATIC DEPRESSURIZATION SYSTEM (ADS) FOLLOWING SEVERE ACCIDENTS

The ADS is an important safety system which must function in a severe accident environment and permit easy depressurization of the vessel, such that low pressure water supplies can be injected in the vessel. Provide the following information relative to ADS survivability:

1. ADS valve manufacturer;
2. ADS power source (Air/Electric/other);
3. Maximum containment pressure at which ADS will still be operable;
4. Back up operating sources, such as accumulators/bottles; and
5. Qualification of ADS operating cables for the harsh post-severe-accident environments.