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ACCESSION NBR:8008180542 DOC.DATE: 80/08/07 NOTARIZED: NO DOCKET #
FACIL:50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe 05000220
AUTH.NAME AUTHOR AFFILIATION
DISE,D.P. Niagara Mohawk Power Corp.
RECIP.NAME RECIPIENT AFFILIATION
IPPOLITO,T. Operating Reactors Branch 2

SUBJECT: Requests reapproval of fire protection mod schedules, previously approved by NRC 790727 ltr.Requests extension of completion date for detection sys & shutdown panel to Jul 1981 & for sprinkler sys to Feb 1981.Justification encl.

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NIAGARA MOHAWK

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

August 7, 1980

Director of Nuclear Reactor Regulation
Attention: Mr. Thomas Ippolito, Chief
Operating Reactors Branch #3
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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

Dear Mr. Ippolito:

As required by the proposed regulation of 10 CFR 50 Paragraph 50.48c, Niagara Mohawk Power Corporation requests reapproval of fire protection modification schedules. These were previously approved by the Nuclear Regulatory Commission as detailed in Table 3.1 (attached) of your letter dated July 27, 1979 to Mr. Dise. Further, Niagara Mohawk requests approval to extend the completion date for the detection system (item 3.1.1) and the shutdown panel (item 3.1.7) to July, 1981, and the sprinkler system (item 3.1.2) until the end of February 1981. The detection system is scheduled for completion in July 1980, however, final testing may extend beyond July 31, 1980.

The attached report gives the reasons for the proposed schedule. In summary, it is not possible to accelerate the previously approved schedule. It is not feasible to design, fabricate, deliver and install all equipment by November 1, 1980. Maintaining the previously approved completion dates does not subject the public to a significant increase in risk to health or safety. Delaying the installation of the detection system, remote shutdown panel and sprinkler system also has no significant risk effect.

It should be noted that the proposed (and previously approved) schedule results in many modifications being completed before or near the November 1, 1980 date. In fact, several are already complete. It should be further noted that Niagara Mohawk has been responsive to all requests concerning fire protection. If this proposed schedule is not accepted and Nine Mile Point Unit 1 is shutdown by November 1, 1980, Niagara Mohawk customers will suffer unwarranted cost increases during the winter peak.

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For the reasons described herein, Niagara Mohawk requests relief from the requirement of the proposed 10 CFR 50 paragraph 50.48(c).

In addition, Niagara Mohawk cannot comply with Section III Q Associated Circuits of Appendix R to 10 CFR 50 by November 1, 1980. In fact, Niagara Mohawk believes that it is irrational to attempt to comply since the added safety benefits are minimal. It has been estimated that a years shutdown would be required, and the overall cost would exceed $250 million.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

D. P. Dise
Vice President - Engineering

WRD:ja

Nine Mile Point Unit 1
Fire Protection Modification
Schedule Justification

A. Background

The review of the Nine Mile Point Unit 1 fire protection capabilities was initiated by the Nuclear Regulatory Commission on May 11, 1976. In a letter from Mr. Stello to Mr. G. K. Rhode, Niagara Mohawk was requested to conduct an evaluation to compare the then existing fire protection capabilities to Standard Review Plan 9.5-1. A letter from Mr. G. K. Rhode to Mr. Stello dated June 2, 1976 indicated that we would submit an evaluation by March 1, 1977.

Subsequently, the Nuclear Regulatory Commission, on September 27, 1976 by a letter from Mr. Goller to Mr. Rhode, transmitted Appendix A to Standard Review Plan 9.5-1 and supplemental guidance for fire protection programs evaluation. These documents were to be used by the Nuclear Regulatory Commission to review fire protection evaluations. On October 19, 1976, Mr. Rhode submitted a letter indicating that Niagara Mohawk would compare our program to the Nuclear Regulatory Commission guidelines. By letter on December 1, 1976 from Mr. R. R. Schneider to Mr. Goller, an interim report of the comparison of the Nine Mile Point Unit 1 fire protection capabilities to Appendix A to Standard Review Plan 9.5-1 was provided.

On February 28, 1977, Niagara Mohawk transmitted a report of our evaluation. The transmittal letter indicated that Niagara Mohawk would implement all modifications by January 1, 1979 if Nuclear Regulatory Commission approval was forthcoming in a timely manner.

After the report was submitted to the Nuclear Regulatory Commission, there were several discussions concerning a Nuclear Regulatory Commission team performing an on-site review of the Nine Mile Point Unit 1 fire protection program. The initial date scheduled was a week in June, 1977. However, because of various delays by the Nuclear Regulatory Commission, the actual on-site review did not take place until October, 1978.

Niagara Mohawk continually expressed our strong desires to have the Nuclear Regulatory Commission team perform its on-site review as soon as possible so implementation could proceed. Niagara Mohawk was concerned with the large scope of work associated with meeting Standard Review Plan 9.5-1. It was Niagara Mohawk's understanding that the Nuclear Reglatory Commission delay was caused by assignment of personnel to other fire protection reviews. It was presumed by Niagara Mohawk that the Nuclear Regulatory Commission prioritize its review schedule based on the perceived significance of fire protection deficiencies.

Also, during this 15 month delay period, the Nuclear Regulatory Commission requested other information related to the fire protection evaluation. This information included description of plant personnel functional responsiblities, administrative controls, quality assurance procedures, as well as proposed technical specification changes. Niagara Mohawk responded to all requests in a timely manner.

The Nuclear Regulatory Commission completed its initial review of the Nine Mile Point Unit 1 Fire Protection Program report and transmitted requests for additional information on July 10, 1978. Niagara Mohawk provided the information as requested on October 6, 1978. The Nuclear Regulatory Commission had requested submission prior to the on-site team review during the week of October 16, 1978.

During the on-site team review, Nulcear Regulatory Commission reviewers identified additional information which was required. Parts of responses were provided in a letter from Mr. Dise to Mr. Ippolito dated November 17, 1978. In addition, the Nuclear Regulatory Commission transmitted a report of the meeting which identified additional information which was required. On January 1 and January 31 of 1979 this information was transmitted by Niagara Mohawk.

Based upon the type of additional information requested by the Nuclear Regulatory Commission relating to your review of our fire protection program, it is Niagara Mohawk's belief that our original program as submitted in February of 1977 was thorough and responsive to Nuclear Regulatory Commission requirements. This, as well as our timely response schedule to informational requests, shows that Niagara Mohawk put forth its best effort to identify and resolve items in our fire protection program which were deficient when compared to Nuclear Regulatory Commission guidelines. This is especially noteworthy when considering that certain Nuclear Regulatory Commission guidelines were being developed during this time period.

A draft Nuclear Regulatory Commission Safety Evaluation Report was discussed in a meeting between the Nuclear Regulatory Commission and Niagara Mohawk during the week of March 6, 1979. The Nuclear Regulatory Commission staff on that occasion indicated that all modifications should be implemented by June, 1981. The final Nuclear Regulatory Commission Safety Evaluation Report was issued on July 27, 1979 with an implementation schedule as shown in the attached Table 3.1.

B. Justification for Requests

As outlined above, the current schedule for completing fire protection modifications has been based on the Nuclear Regulatory Commission Staff review schedule. Niagara Mohawk correspondence to the Nuclear Regulatory Commission indicated that modifications would have been completed prior to November 1, 1980 if the Nuclear Regulatory Commission had concurred with the proposed modifications in a timely manner. Nuclear Regulatory Commission concurrence was not timely and, in fact, the Safety Evaluation Report for Nine Mile Point Unit 1 was the last issued by the Nuclear Regulatory Commission. The timing of Nuclear Regulatory Commission review in no way reflects an uncooperative effort on Niagara Mohawk's part. Our initial submittal as well as our responses to information requests have been complete and timely. It is our belief that the Nuclear Regulatory Commission Staff had manpower limitations.

Niagara Mohawk received the Nuclear Regulatory Commission Safety Evaluation Report for Nine Mile Point Unit 1 in July of 1979. Niagara Mohawk has put forth its best effort to complete the modifications on a schedule consistent with the completion date shown on Table 3.1 of the Safety Evaluation Report. Niagara Mohawk believes that the dates shown on Table 3.1 are reasonable and, in most cases, achievable. It is not possible to design, fabricate, deliver and install all equipment by November 1, 1980.

Described below are our current estimated schedules and the safety significance of implementation beyond November 1, 1980 for each fire protection modification listed on Table 3.1 of the Nuclear Regulatory Commission Safety Evaluation Report.

3.1.1 Fire Detection Systems

The functional specification for these systems were finalized on March 27, 1980. It was determined that the main control room fire control panel must be replaced and that seven local panels must be installed. The functional specification details where detection zones are to be located and generally what types of detectors are appropriate for each zone.

There are several procurements which must be made prior to hiring an installation contractor. These are: 1) detectors, 2) local panels, 3) main control room fire panel, 4) motor control center (for ventilation control from local panels) and 5) cable.

The detector design (i.e. location within zones, etc.) and supply contract has recently been finalized and a contract let. The local panels are included in the contract for the detectors. Delivery of the detectors and local panels is estimated by November, 1980. The main control room fire panel is being designed at this time and a request for quotation is scheduled for issuance by the end of August, 1980. The earliest delivery date is estimated to be January, 1981. The motor control centers will be ordered in the same time frame as the main control room fire panel, and delivery is expected by March, 1981. Cable should be ordered by the end of August, 1980. Lead times may be as great as 30 weeks, so that delivery may be in March of 1981. The completion date for installation of the detection modification is July, 1981. This is approximately two months after the planned completion of the Spring 1981 refueling outage. The Nuclear Regulatory Commission Safety Evaluation Report shows a completion date during the Spring 1981 refueling.

The risk to public health and safety for a completion date beyond November 1, 1980 is minimal. The Nine Mile Point Unit 1 plant design is conservative with respect to separation and other safety system considerations. For instance, the emergency cooling system has two trains of emergency condensers. Each train of condensers can provide up to eight hours of emergency operation prior to the need to provide cooling water. In addition, the security guards make normal hourly tours of the plant, so that a fire would likely be detected.

3.1.2 Sprinkler System

The system description and specifications for detailed design, fabrication and installation of the sprinkler systems are complete. Bids for this work are due the first week of August 1980. After the contract is awarded, the vendor will perform the detailed design (i.e., sprinkler locations, pipe sizes, etc.) for each of the zones. After approval,

3.1.2 Sprinkler System (cont.)

material can be procured and installation can begin. Six to eight weeks are estimated to be required for the design cycle. Installation is expected to require five to six months. The earliest completion of installation is February 28, 1981. The safety implications of installing sprinkler systems after November 1, 1980 are extremely small. The possibility of a single fire disabling both channels of a redundant system required for safe shutdown is remote. It is highly likely that fires within the plant would be detected early during normal plant tours. There are manual hose stations and portable fire fighting equipment throughout the plant for fire brigade use.

It should be noted that in most areas, sprinkler systems are initiated by a detection system. As discussed previously, the detectors are not scheduled for complete installation until July of 1981. However, it will be possible to place sprinklers in service as wet pipe systems temporarily.

3.1.3 Fire Stops and Penetrations

Tests are being performed at Underwriter Laboratories to determine whether existing penetration seals provide a three hour barrier and what the optimum design is for sealing penetrations which have not yet been sealed. These tests will be completed in August of 1980. All penetrations are scheduled to be sealed by the spring 1981 refueling outage.

3.1.4 Fire and Heat Barriers

The majority of the items identified in this section will be completed by November 1, 1980. However, certain portions, such as ventilation, duct penetrations and fire dampers, may not be complete until December, 1980.

Installing the ventilation duct penetrations and fire dampers after November 1, 1980 does not pose a significant safety hazard. These modifications are being made to provide smoke purge capability for ease of fire fighting. However, even without this smoke purge capability fire fighting can continue.

3.1.5 Fire Doors

All the doors identified in this section will be installed by November 1, 1980.

3.1.6 Reactor Building Modifications

These modifications will be completed by November 1, 1980.

3.1.7 Control Building Modifications

As noted in our letter dated December 11, 1979, Niagara Mohawk has chosen to install an automatic halon system with a manual CO_2 backup in the auxiliary control room. The halon system is scheduled for installation by December of 1980. The Nuclear Regulatory Commission Safety Evaluation Report indicates a completion during the 1981 refueling outage. Since there is a manual CO_2 system in place in the auxiliary control room, any delay of the halon system installation does not pose a significant safety hazard. The auxiliary control room is manned a large portion of the time by technicians.

The system description for the control room ventilation system has been completed and a request for quotations was issued for the installation in July of 1980. The current schedule indicates the modifications will be completed by December of 1980. Installation of the ventilation modifications after November 1, 1980 is of little safety significance. The modifications for smoke purge are to provide for ease of fire fighting. If this capability is not in place, the fire fighting effort can proceed.

The false ceiling in the control room has been modified to assure that flame spreading rating is less than 25. An aluminum grid false ceiling has been installed.

The functional specification for the shutdown panel is completed. The panel is being designed at this time and the current schedule has the panel being installed during the Spring 1981 refueling outage. Final installation is scheduled for completion in July 1981.

The proposed fire protection rule indicates that the shutdown panel should be installed by March 1981. Nine Mile Point Unit 1 will be down for refueling from March to approximately May 1981. Procedures are currently in place to allow remote shutdown without the panel.

3.1.8 Diesel Generator Building Modifications

All of the modifications described in this section will be completed prior to November 1, 1980.

3.1.9 Turbine Building Modifications

Offsite power cable for powerboard #103 has been routed away from powerboard #102. The remainder of the modifications required by this section will be completed by the Spring 1981 refueling outage. The fire damper for elevation 305 of the Turbine Building Oil Storage room is scheduled to be installed by December, 1980.

The deluge system for the south and west walls will be completed during the 1981 refueling outage. The interior supply piping and valves will be installed by February 1981, and the exterior heads will be installed during the refueling. It is not possible from a personnel safety consideration to install the fittings for this system while the plant is operating. The station transformers are protected by a deluge system and there are manual hose stations within 100 feet of the transformers. Therefore, the possibility of a fire penetrating the station walls is low.

3.1.10 Waste Building Modifications

All the modifications required in the waste building will be completed by November 1, 1980.

3.1.11 General Modifications and Administrative Changes

All modifications except the local alarms for areas having automatic detection systems and modifications to the ventilation system for smoke removal will be completed by November 1, 1980. The safety significance of delaying the ventilation and detection modifications is discussed above.

C. Conclusion

Niagara Mohawk has strived to complete all fire protection modifications by the completion dates indicated in the Nine Mile Point Unit 1 Fire Protection Safety Evaluation Report. We believe we have been responsive to all Nuclear Regulatory Commission requests. Considering that the Nine Mile Point Unit 1 Safety Evaluation Report was the last issued, it is not reasonable to now require that the modifications be completed by November 1, 1980. Allowing only 15 months to design, fabricate and install the vast amount of equipment required is unrealistic and unreasonable.

Also, the Nuclear Regulatory Commission should consider that a substantial amount of other work has been required of Niagara Mohawk by the Nuclear Regulatory Commission over the last two years. This work includes inspections and repairs resulting from Inspection and Enforcement Bulletin 79-02 and 79-14, Mark I Containment Modifications as well as work resulting from the Three Mile Island action.

Table 3.1

Completion Dates for Proposed Modifications

	Modifications	Completion Date
3.1.1	Fire Detection Systems	1981 Refueling
3.1.2	Sprinkler Systems	January 1, 1981
3.1.3	Fire Stops Penetration Seals	September 1, 1980 1981 Refueling
3.1.4	Fire and Heat Barriers	January 1, 1981
3.1.5	Fire Doors	January 1, 1981
3.1.6	Reactor Building Modifications	1981 Refueling
3.1.7	Control Building Modifications Safe Shutdown Panel	1981 Refueling 1981 Refueling
3.1.8	Building Modifications Diesel Generator	June 1981 1981 Refueling
3.1.9	Turbine Building Modifications	1981 Refueling
3.1.10	Waste Building Modifications	January 1, 1981
3.1.11	General Modifications Administrative Changes	June 1981 September 1, 1979
3.1.12	Diesel Fire Pump	September 1, 1979

(From Safety Evaluation Report transmitted by letter of July 27, 1980).