JUN 24 1983

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Docket No.: 50-410

APPLICANT: Niagara Mohawk Power Corporation (NMPC)

FACILITY: Nine Mile Point-2

SUBJECT: SUMMARY OF CASELOAD FORECAST PANEL (CFP) MEETINGS AND FACILITY TOUR AT NINE MILE POINT-2 - February 22 - 24, 1983

SUMMARY

On February 22 - 24, 1983, the NRC Caseload Forecast Panel (CFP), consisting of William Lovelace (RM/DMI), Mary Haughey (Licensing Project Manager) and Robert Schulz (Sr. Resident Inspector), met with the applicant and toured the Nine Mile Point-2 facility and site. The purpose of these meetings and tour was to review construction progress and collect data for the purpose of assisting the NRC staff in estimating its resource needs for licensing activities for Nine Mile Point 2. The visit was organized in two parts:

1. On February 22, a meeting was held with the applicant to review design and engineering, procurement, and construction progress on Nine Mile Point-2.

2. On February 23, a tour of the Nine Mile Point-2 facility and site was made to observe the status of construction. The CFP also held brief discussions with the applicant on February 23 and 24 concerning questions raised during the meeting and tour.

On February 24, a close-out meeting was held. The CFP stated that, based on the percentage of completion of such things as concrete, pipe hangers, and cable, as determined from information provided from the applicant and from the facility tour, the applicant's projected construction completion date of late February 1986 appeared to be very optimistic. The data upon which the CFP projection is based is given in the following sections of the meeting summary.

Although the CFP believed the February 1986 construction completion date was very optimistic, Nine Mile Point 2 is still approximately three years from construction completion and construction completion estimates within a few months are still uncertain. For this reason it was agreed, for the present, that the licensing schedule would be based on the applicant's scheduled completion date. It was further agreed that another Caseload Forecast Panel visit would be made in the spring of 1984 to reassess the applicant's progress in meeting the February 1986 completion date.

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MEETING AND FACILITY TOUR DETAILS

Tuesday, February 22, 1983, at Nine Mile Point-2 Scriba, New York.

The CFP met with the applicant at the NMPC offices on the Nine Mile Point-2 site. A list of attendees is included as Attachment 1.

The applicant's presentation to the staff was supplied in eleven segments corresponding to the eleven items in the Caseload Forecast Panel Site Visit Meeting Agenda (Attachment 2) which was included in the meeting notice.

The NMPC presentation included a general overview of project construction, major milestones, and current and anticipated problems. As of January 31, 1983, construction percent complete was reported by NMPC as 61.59%. In 1982, 22.56% construction completion was planned; 23.4% was achieved. Current problems include:

1. contractor performance affecting schedule, notably the mechanical/ piping contractor.

2. limited engineering lead time to construction.

Future potential schedular problems include:

1) power generation control complex (PGCC) modifications

2) contractor performance, notably the major mechanical contractor

3) equipment qualification concerns

4) control rod drive system schedule

5) craft availability, notably welders

6) conversion from bulk basis project to a system based construction

Major construction milestones completed in 1982 were:

1) set spent fuel pool liner

2) complete set spent fuel pool liner

3) cooling tower shell complete

4) intake and discharge tunnels complete

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Major construction milestones scheduled for 1983 are:

1) 115V switchyard ready to energize

2) cable trays 80% complete

3) set main PGCC console

4) large process pipe 80% complete (hang in place, tacked in place)

5) polar crane operational

6) diesel generator building enclosure

7) screenwell building enclosure complete

8) cooling tower complete

9) reactor building enclosure complete

10) walsh concrete 98% complete

The status of bulk quantities installed is indicated in Attachment 3. The method uses by NMPC for determining partial credit for installation is indicated in Attachment 4.

Engineering and design efforts were estimated by NMPC to be about 82% complete at the end of 1982. Engineering milestones completed in 1982 were a) complete screenwall structural drawings and b) complete reactor building concrete and steel drawings.

A project restraint file was made available to the CFP for review. This file listed equipment need dates and status of delivery as of February 21, 1983. This list indicated 3 equipment areas are experiencing short term delivery problems of 1 to 3 months. The bulk of the equipment indicated on-site need dates in 1983.

NMPC noted a large craft work force is available in the Oswego area and craft workers are often used from the Nine Mile Point, Unit 1 and Fitzpatrick plants. The availability of qualified welders however was indicated as a continuing problem.

The Nine Mile Point-2 project has recently undergone a major schedule revision to evaluate the potential for improving the fuel load date. Present NMPC schedules are targeted for an August 1985 early fuel load date. Critical path items for each area were identified by NMPC. These items have float times (extra time available for contingencies before impacting the schedule) of between zero to 4 weeks before impacting the August 1985 fuel load date. This schedule allows little or no time for unexpected contingencies. An extra six month period is built into the total project float time, however, when considering the February 1986 official fuel load date.

Separate float is identified in Nine Mile Point-2 schedules for engineering, construction, and test and startup. Items are considered negative when they exhaust the float in any one of these areas, not the total project float. This system calls attention to schedule problems before they impact the total project.

Of the 1213 pre-op and acceptance test procedures identified by NMPC as required for fuel load, 263 were identified as approved, 81 in review, 286 started, and 583 not yet started. (The number of procedures required in the areas of In Service Inspection, Operations Surveillance and Preventive Maintenance, Start-up Tests and Special Operating Procedures have not yet been identified and are not included in this total).

A total of 300 workers were identified by NMPC as required resources for the Pre-op and Acceptance Tests Program. Of these, 125 are already employed by NMPC. It was indicated by NMPC that the remaining personnel (mainly in the operating, technician, and test engineer categories) could be drawn from the pool of workers in the Oswego area presently working at Nine Mile Point, Unit 1 and Fitzpatrick.

Wednesday, February 23, 1983, at Nine Mile Point-2

The CFP toured the Nine Mile Point-2 site on Wednesday to observe the status of construction. Among the areas observed were the containment building (including the drywell and suppression pool), the turbine building, the control room building, the radwaste building, the diesel generator building, and the refueling area.

A brief meeting was held after the tour to discuss additional information necessary for the NRC staff to make its estimate of the Nine Mile Point-2 fuel load date.

Thursday, February 24, 1983, at Nine Mile Point-2

A brief meeting was held with the applicant on Thursday morning to obtain the additional information requested by the NRC staff. At 10:30 Thursday morning, a summary meeting was held with the applicant. The attendance list for this meeting is included in Attachment 1. At this meeting, the applicant was advised by the CFP that the applicant's official scheduled construction completion date of February 1986, appeared very optimistic. Discussion of a licensing review schedule was deferred pending further evaluation by NRC staff management.

M. Haughey, Project Manager
Licensing Branch No. 2
Division of Licensing

Attachments:
As stated

cc: See next page *SEE ATTACHED PAGES FOR PREVIOUS CONCURRENCES

OFFICE	DL:LB#2/PM*	DL:LB#2/BC*	RM/DMI*	DEP:DIR/PM*	DL:AD/LB		
SURNAME	MHaughey:pt	ASchwencer	WLovelace	RScroggins	TNovak		
DATE	3/16/83	5/10/83	5/10/83	6/13/83	6/24/83		

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M. Haughey, Project Manager
Licensing Branch No. 2
Division of Licensing

Attachments:
As stated

*SEE ATTACHED PAGE FOR PREVIOUS CONCURRENCES

OFFICE	cc: See next page		*DL:LB#2/PM	*DL:LB#2/BC	*RM/DMI	DER:DIR/RM	*DL:AD/L
SURNAME			MHaughey:pt	ASchwencer	WLovelace	RSHoggins	TNovak
DATE			3/16/83	3/18/83	3/18/83	6/3/83	3/21/83

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Original signed by:

M. Haughey, Project Manager
Licensing Branch No. 2
Division of Licensing

Attachments:
As stated

OFFICE	cc: See next	page	DL:LB#2/PM	DL:LB#2/BC	RM/DMI	DL:AD/L	
SURNAME			MHaughey:pt	ASchwencer	WLovelace	TNovak	
DATE			3/16/83	3/18/83	3/18/83	3/21/83	

Nine Mile Point 2

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ATTACHMENT 1

ATTENDANCE LIST

CASELOAD FORECAST PANEL MEETINGS (2/22 - 24/83)

NAME	ORGANIZATION
Mary F. Haughey	NRC - Licensing Project Man.
W. H. Lovelace	NRC - RM
Paul D. Eddy (2/22 and 2/24 only)	NYS - PSC
A. F. Zallnick	NMPC - Licensing
F. M. Sheldon	Stone & Webster - Construction
J. B. Hadden	NMPC - AMC
N. L. Rademacker	NMPC - Licensing
R. H. Pinney	Stone & Webster - Licensing
D. L. Pike (2/22 only)	NMPC - Engineering
R. J. Cohen	NMPC - Scheduling
R. B. Abbott	NMPC - OPRNS
Robert D. Schulz	NRC - Sr. Res. Inspector
S. F. Manno (2/24 only)	NMPC - V. P. Nuclear Construction
J. McGrath (2/24 only)	NYS - PSC

CASELOAD FORECAST PANEL SITE VISIT
MEETING AGENDA

ATTACHMENT 2

1. Overview of project construction schedule including progress and major milestones completed, current problems and any anticipated problem areas that may impact the current projected fuel load date.

2. Detailed review and current status of design and engineering effort (by major discipline) including any potential problems that may arise from necessary rework.

3. Detailed review and current status of procurement activities including valves, pipe, instruments, cable, major components, ~~etc.~~

4. Actual and proposed craft work force (by major craft), craft availability, productivity, potential labor negotiations and problems.

5. Detailed review and current status of all large and small bore pipe hangers, restraints, snubbers, etc., including design, rework, procurement, fabrication, delivery and installation.

6. Detailed review of project schedule identifying critical path items, near critical items, amount of float for various activities, the current critical path to fuel loading, methods of implementation of corrective action for any activities with negative float, and provisions for contingencies. The estimated project percent complete as of January 31, 1983.

7. Detailed review and current status of bulk quantities including current estimated quantities, quantities installed to date, quantities scheduled to date, current percent complete for each, actual versus forecast installation rates, in cubic yards/mo., linear feet/mo., or number/mo., and basis for figures.

   (a) Concrete (CY)

   (b) Process Pipe (LF)

      - Large Bore Pipe (2 1/2" and larger)
      - Small Bore Pipe (2" and smaller)

   (c) Yard Pipe (LF)

   (d) Large Bore Pipe Hangers, Restraints, Snubbers (ea)

(e) Small Bore Pipe Hangers, Restraints (ea)

(f) Cable Tray (LF)

(g) Total Conduit (LF)

(h) Total Exposed Metal Conduit (LF)

(i) Cable (LF)

- Power
- Control
- Security
- Instrumentation
- Plant Lighting

(j) Terminations (ea)

- Power
- Control
- Security
- Instrumentation
- Plant Lighting

(k) Electrical Circuits (ea)

- Power
- Control
- Security

(l) Instrumentation (ea)

8. Detailed review and current status of preparation of preop and acceptance test procedures, integration of preop and acceptance test activities with construction schedule, system turnover schedule, preop and acceptance tests schedule, current and proposed preop and acceptance tests program manpower.

(a) Total number of procedures required for fuel load.
(b) Number of draft procedures not started.
(c) Number of draft procedures being written.
(d) Number of procedures approved.
(e) Number of procedures in review.
(f) Total number of preop and acceptance tests required for fuel load.
(g) Number of preop and acceptance tests completed.
(h) Number of preop and acceptance tests currently in progress.
(i) Number of systems turned over to start-up.

- Detailed discussion of potential schedular influence due to changes attributed to NUREG-0737 and other recent licensing requirements.

10. Discussion of schedular impact, if any, regarding potential deficiencies reported in accordance with 10 CFR 50.55(e).

11. Overview of current construction and startup management organization showing interfaces between the two.

12. Site tour and observation of construction activities.

NINE MILE POINT NUCLEAR STATION - UNIT 2

CONSTRUCTION INDICATORS

DESCRIPTION	UOM	1/1/83 REVISED BUDGET ESTIMATE	ACTUAL INSTALLED AS OF 1/16/83	% INSTALLED AS OF 1/16/83
Reinforcing Steel	TN	37,676	31,787	84
Formwork	SF	3,079,125	2,584,320	84
Concrete	CY	261,262	221,317	85
Structural Steel	TN	20,282	15,816	78
Large Bore Pipe	LF	246,332	149,994	61
Large Bore Welds	EA	18,669	11,174	60
Large Bore Hangers	EA	16,974	6,814	40
Small Bore Pipe	LF	159,982	23,940	15
Conduit and Supports	LF	619,600	312,599	50
Cable Tray	LF	126,235	81,897	65
Cable (Pwr, Instr,Cntrl)	LF	5,758,541	600,067	10
Cable Terminations	EA	256,917	78	0

ATTACHMENT 3

ATTACHMENT 4

J. O. No. 12187

PERCENTAGES AND CRITERIA FOR REPORTING PARTIAL CREDIT
FOR LARGE BORE HANGER QUANTITIES INTO THE PPR

Status of Hanger	X Credit	Progress Values Incremental/Cumulative
Loaded in building	X	.10 / .10
Start Erection	XX	.25 / .35
A. Permanent attachment made (hanger committed).		
Erection in Progress(1)	XXX	.30 / .65
A. Temporary - Permanent. B. All parts installed, no pressure boundary welds made. C. All hanger parts installed except suppressors. D. Hanger incomplete but will support pipe.		
Erection Complete (2)	XXXX	.30 / .95
A. All parts installed. B. All structure welding complete. C. All pressure boundary welding complete.		
Accepted(2)	XXXXX	.05 / 1.00
A. Construction turnover operations completed (hot/cold set complete; QC accepted).		

(1) One or more conditions must be met to claim credit.

(2) All conditions must be met to claim credit.

J.O. No. 12187

PERCENTAGES AND CRITERIA FOR REPORTING PARTIAL CREDIT FOR LARGE BORE ~~HANGER~~ PIPE QUANTITIES INTO THE PPR

Status of Pipe Spool	X Credit	Progress Values Incremental/Cummulative
Loaded in building	X	.15 / .15
Hung in position (Rigged)	XX	.45 / .60
Ready to weld	XXX	.40 / 1.00

PERCENTAGES AND CRITERIA FOR REPORTING PARTIAL CREDIT FOR LARGE BORE VALVE QUANTITIES INTO THE PPR

Status of Pipe Spool	X Credit	Progress Values Incremental/Cummlative
Loaded in building	X	.15 / .15
Hung in Position (Rigged)	XX	.45 / .60
Ready to weld (Const. Accept)	XXX	.40 / 1.00

PERCENTAGES AND CRITERIA FOR REPORTING PARTIAL CREDIT FOR LARGE BORE WELD QUANTITIES INTO THE PPR

Status of Weld	X Credit	Progress Values Incremental/Cummulative
In Progress	X	.40 / .40
Complete & Ground	XX	.45 / .85
Q.C. Accepted	XXX	.15 / 1.00

J. O. No. 12187

PERCENTAGES AND CRITERIA FOR REPORTING PARTIAL CREDIT FOR LARGE BORE HANGER QUANTITIES INTO THE PPR

Status of Hanger	X Credit	Progress Values Incremental/Cumulative
Loaded in building	X	.10 / .10
Start Erection	XX	.25 / .35
A. Permanent attachment made (hanger committed).		
Erection in Progress[1]	XXX	.30 / .65
A. Temporary - Permanent. B. All parts installed, no pressure boundary welds made. C. All hanger parts installed except suppressors. D. Hanger incomplete but will support pipe.		
Erection Complete [2]	XXXX	.30 / .95
A. All parts installed. B. All structure welding complete. C. All pressure boundary welding complete.		
Accepted[2]	XXXXX	.05 / 1.00
A. Construction turnover operations completed (hot/cold set complete; QC accepted).		

(1) One or more conditions must be met to claim credit.

(2) All conditions must be met to claim credit.

MEMO DATED: JUN 24 1983

MEETING SUMMARY DISTRIBUTION:
Docket File (50-410)
NRC PDR
Local PDR
NSIC
PRC

LB#2 File
EHylton
MHaughey
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WLovelace
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