

### UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I

March 28, 1988 AUG -5 P4:08

NO. 249

Docket No. 50-220 50-410

PUBLIC ......

CAL No. 88-13 EA No. 88-95

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

Gentlemen:

Subject: CONFIRMATORY ACTION LETTER 88-13: MAINTENANCE OF OPERATOR LICENSES

On February 22-26, 1988, the NRC conducted an inspection of your Licensed Operator Retraining and Continuing Training Program. The results of this inspection concluded that documentation of continuing training, required reading assignments and required makeup training attendance was missing from individual training files for Unit 1 licensed Operators and Senior Operators.

On March 22-25, 1988, a special announced inspection was conducted to review the results of your internal investigation regarding the missing documentation. The results of your investigation concluded that portions of required training, for licensed Operators and Senior Operators, had not been completed prior to the end of your annual requalification period of February 22, 1988, in accordance with your program. In accordance with 10 CFR 55.53(h), a licensed operator or senior operator must be enrolled in the requalification program of the facility for which he holds a license, in order to meet the conditions of his/her license. In addition, an applicant for randwal of a license is required to have satisfactorily completed the requalification program for the facility for which the license renewal is sought in accordance with 10 CFR 55.57(a)(4).

10 CFR 50.54(i-1) (Conditions of Licenses) states in part that the licensee shall have in effect an operator requalification program which must as a minimum meet the requirements of 55.59(c) (Requalification Program).

On March 25, 1988, ar exit meeting was conducted to discuss apparent violations associated with the implementation and documentation of your Licensed Operator Retraining Program, i.e., your NRC approved Requalification Program.

We are concerned with the potential adverse implications that licensed Operators and Senior Operators are not current and that license renewal applications received to date are not complete and accurate.

During a telephone call with you on March 28, 1988, you agreed that the following actions have been or will be taken:

 Complete all requalification training, as required by your approved licensed Operator Training Program, prior to the restart of the Unit 1 reactor.

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Niagara Mohawk Power Corporation

Verify that those individuals whose licenses have been renewed since May 2. 1987, have completed the approved requalification program 26, requirements.

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- Verify that requalification training for Unit 2 is being maintained in 3. accordance with the requalification program requirements.
- Submit a report upon completion of the above items to the Administrator, 4. Region 1.

Further, we understand that Unit 1 will not be taken critical until you receive authorization from the Regional Administrator.

If your understanding of the actions to be taken are different than these described above, please contact this office within 24 hours of receipt of this letter.

Thank you for your cooperation.

Sincerely.

William V. Johnston, Acting Director

Division of Reactor Safety Region I

cc:

T. E. Lempges, Vice President, Nuclear Generation J. A. Perry, Vice President, Quality Assurance T. Perkins, General Superintendent, Nuclear Generation

W. Hansen, Manager Corporate Quality Assurance T. Roman, Unit 1 Station Superintendent

J. Aldrich, Unit 1 Superintendent, Operations C. Beckham, Manager Nuclear Quality Assurance Operations

W. Drews, Technical Superintendent

Troy B. Conner, Jr. Esquire John W. Keib, Esquire

Director, Power Division

Public Document Room (PDR)

Local Public Document Room (LPDR)

Nuclear Safety Information Center (NSIC)

NRC Resident Inspector

State of New York

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## UNITED STATES ATOMIC ENERGY COMMISSION WASHINGTON, D.C. 20545

OCT 3 1974

Docket No 50-220

Niagara Mohawk Power Corporation ATTN: Mr. T. J. Perkins, Station Superintendent Nine Mile Point Nuclear Station P.O. Box 32 Lycoming, New York 13093

### Gentlemen:

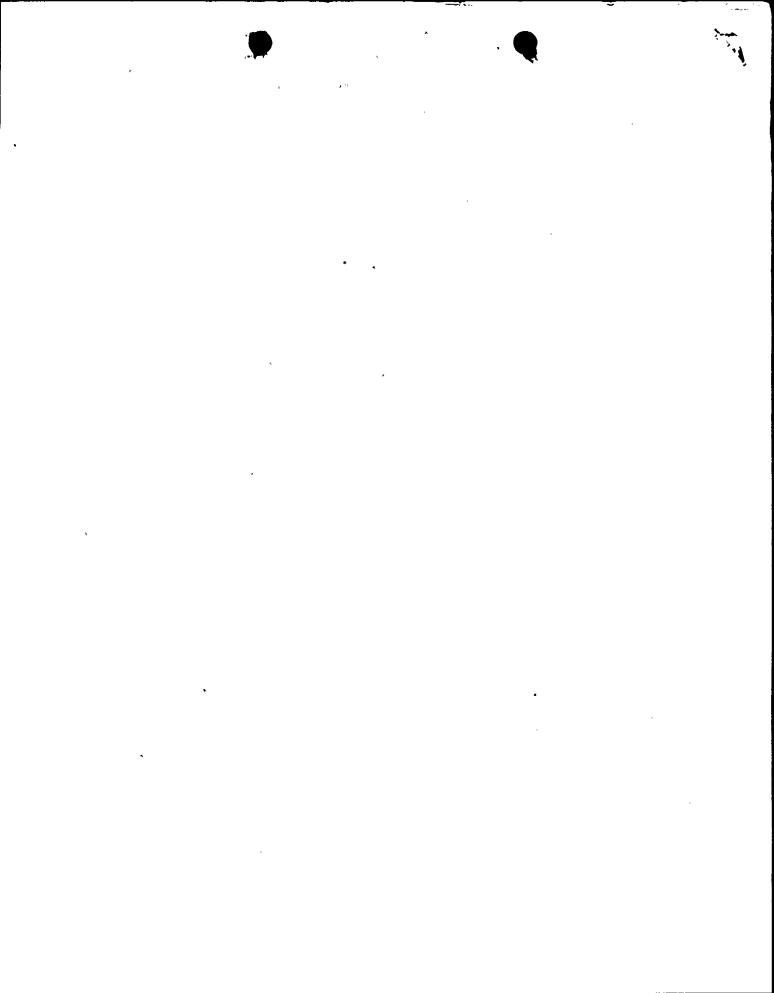
Nuclear power plant simulators were introduced into operator training programs in 1969. In the time since their introduction the Operator Licensing Branch has carefully evaluated their role in the training programs. Based on this evaluation the Operator Licensing Branch has approved increased use of appropriate simulators in the administration of the operator licensing program.

First, the applicants seeking licenses prior to criticality at a facility were given appropriate credit for participating in training programs that utilized acceptable simulators. Then, training programs were approved that utilized simulators for facilities after which the simulators were modeled. Further, the use of appropriate simulators was permitted in meeting certain requirements of the operator requalification programs.

We have now determined that it is acceptable to use nuclear power plant simulators in determining the qualifications of individuals who apply for licenses after initial criticality.

Presently, applicants for licenses, after the facility has achieved criticality must participate in training programs that include, at least, two reactor startups at the facility for which he seeks a license to meet the eligibility requirements to sit for an examination. In addition, applicants must perform a startup of the reactor as part of the operating test.

The Operator Licensing Branch will consider training programs that utilize appropriate nuclear power plant simulators for startup experience for meeting the startup eligibility requirements to sit for examination. In addition, a reactor startup will not be required as part of the operating test, providing that appropriate certification regarding an individual's ability to manipulate the controls is contained in his application.



In order for the applicant to be eligible for this alternate program, the following requirements must be met.

- 1. The applicant has manipulated the controls of his reactor facility during five significant reactivity changes, which may, or may not, include reactor startups.
- 2. The applicant has participated in an AEC-approved training program that includes training at a nuclear power plant simulator, and
- 3. The application contains a certification from the simulator training center attesting to the applicant's:
  - a. ability to manipulate the controls and keep the reactor under control during a reactor startup,
  - b. ability to predict instrument response and use the instrumentation during a reactor startup,
  - c. ability to follow the facility startup procedure and
  - d. ability to explain alarms and annunciators that may occur during this operation.

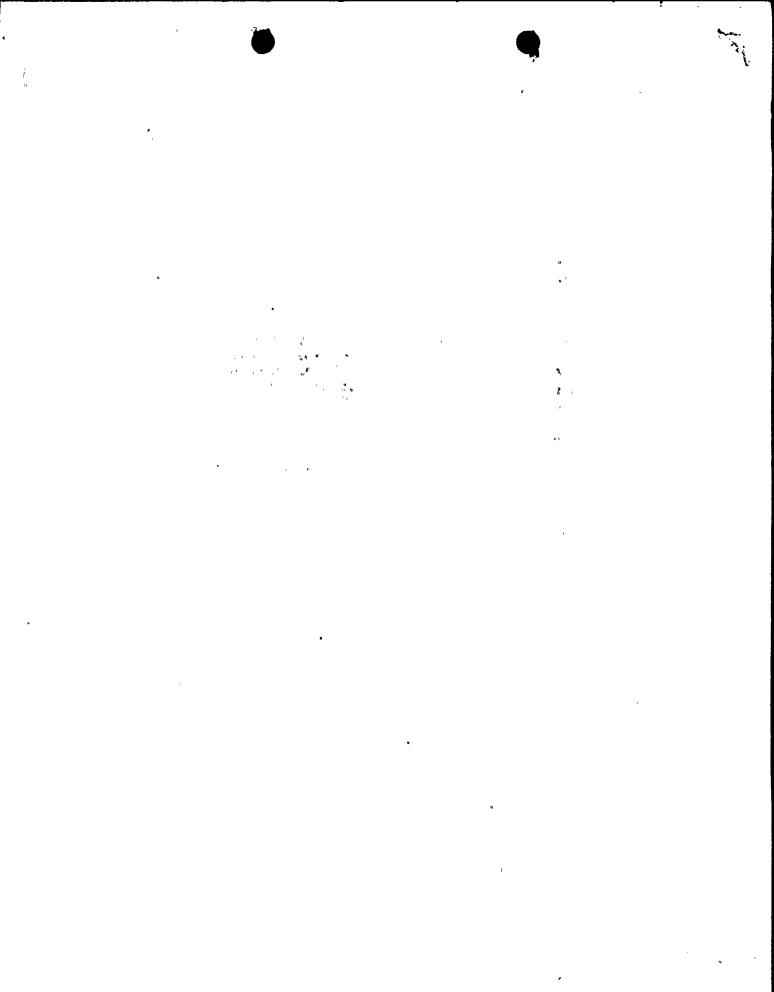
The simulators used in the programs must meet the present requirements for simulators enumerated in Paragraph 3.e., Appendix A of 10 CFR Part 55, namely, that the simulator reproduce the general operating characteristics of the facility involved, and the arrangement of instrumentation and controls of the simulator is similar to that of the facility involved.

The present procedure for training and examining will be continued for those facilities who do not desire to use the alternate procedure described above.

I hope this information will be of use to you. If you have any questions, please contact me.

Sincerely,

Paul F. Collins, Chief Operator Licensing Branch Directorate of Licensing



Docket No. 50-220

Niagara Mohawk Power Corporation
ATTN: Mr. R. R. Schneider
Vice President-Electric Operations
300 Erie Boulevard West
Syracuse, New York 13202

### Gentlemen:

We have reviewed the revised Nine Mile Point Station requalification program for licensed operators and senior operators submitted on February 21, 1974. Based on our review of the material submitted, we have determined the program meets the requirements of Section 50.54(1-1) of 10 CFR Part 50 and Appendix A of 10 CFR Part 55.

The program adequately describes:

- 1. The lecture series to be administered, including subjects and duration.
- 2. The specific manipulations of controls to meet the requirements of Section 3a of Appendix A.
- 3. The methods to be employed to assure individual review of design, procedure and license changes.
- 4. The methods to be employed to assure individual review of abnormal and emergency procedures.
- 5. The specific evaluation criteria for determining attendance at a specific lecture, required participation in an accelerated requalification program and other additional training, as applicable.

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6. The records to be maintained to document each individual's participation in the program.

Sincerely,

P. F. COLUMNIA

Paul F. Collins, Chief Operator Licensing Branch Directorate of Licensing

cc: Arvin E. Upton, Esquire LeBoeuf, Lamb, Leiby & MacRae 1821 Jefferson Place, N.W. Washington, D. C. 20036

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## ATOMIC ENERGY COMMISSION WASHINGTON, D.C. 20545

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Docket No. 50-220

Niagara Mohawk Power Corporation
ATTN: Mr. R. R. Schneider
Vice President-Electric Operations
300 Erie Boulevard West
Syracuse, New York 13202

### Gentlemen:

We have reviewed the revised Nine Mile Point Station requalification program for licensed operators and senior operators submitted on February 21, 1974. Based on our review of the material submitted, we have determined the program meets the requirements of Section 50.54(i-1) of 10 CFR Part 50 and Appendix A of 10 CFR Part 55.

The program adequately describes:

- 1. The lecture series to be administered, including subjects and duration.
- 2. The specific manipulations of controls to meet the requirements of Section 3a of Appendix A.
- 3. The methods to be employed to assure individual review of design, procedure and license changes.
- 4. The methods to be employed to assure individual review of abnormal and emergency procedures.
- 5. The specific evaluation criteria for determining attendance at a specific lecture, required participation in an accelerated requalification program and other additional training, as applicable.

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6. The records to be maintained to document each individual's participation in the program.

Sincerely,

Paul F. Collins, Chief Operator Licensing Branch Directorate of Licensing

cc: Arvin E. Upton, Esquire
LeBoeuf, Lamb, Leiby & MacRae
1821 Jefferson Place, N.W.
Washington, D. C. 20036

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FEB 7 1974

Ningara Mohauk Corporation
ATTM: Mr. P. Allister Burt,
General Superintendent
Nuclear Generation
Nine Mile Point Station
P. O. Box 32
Lycoming, New York 13093

#### Gentlemen:

We have reviewed your letter, dated August 31, 1973. Your letter requested that we review your training program and fourteen individual resumes to determine if the individuals involved would be eligible to sit for cold license examinations for the FitzPatrick Station.

Based on our review of your training program, resumes and discussion with you, we have determined that additional information is necessary for us to make a determination regarding cold eligibility.

Your formal training program consisted of six phases for the senior operator applicants and five phases for the operator applicants. In addition, each individual was to have obtained operating experience at the Nine Mile Point Station and have participated in pre-startup activities at the FitzPatrick Station. The first five phases of the formal training program were completed in May 1973. These programs were to be followed by phase F, refresher course. It is our understanding that phase F training has not been completed.

Based on the time that has elapsed since the completion of phase E, we believe that phase F should be more extensive than that implied by "refresher course". We believe that immediately prior to the administration of phase F training each individual involved be examined to determine areas of weaknesses. The course content of phase F can be developed based on the above evaluations in addition to the overall review. In addition, we believe a thorough review of the FitzPatrick procedures is in order since the procedures were issued subsequent to the completion of phase E training. Please submit an outline of your phase F training for our review.

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Niagara Mohawk Corp.

Also, there was some question in your letter regarding who, Nine Mile Point, General Electric or General Physics personnel, would be teaching phase F and who would be certifying to the successful completion of the program. Please inform us as to who will teach the course and who will certify to successful completion of the course. In addition, please confirm our understanding that individuals who do not receive certification of successful completion will not be endorsed by Niagara Mohawk to take the cold examinations.

Upon receipt of this information, we will make a determination regarding cold eligibility of the individuals involved.

Based on information submitted by you, we had scheduled the written portion of the cold examinations for the week of March 3, 1974 and the cold operating tests for the week of March 23, 1974. In view of the above and other information we have regarding the status of your Technical Specifications, startup procedures and your program for quality assurance for operations, we believe these dates to be unrealistic. In addition, we informed you in a letter, dated June 10, 1973, that applications should be submitted eight weeks prior to the written examination date. To date, the applications have not been received. Consequently, we will not plan on administering the examinations during the month of March.

Upon resolution of the above items, Mr. Robert J. Campbell, ENR Group Leader, OLB, will make arrangements for administration of the examinations.

Sincerely,

ORIGINAL SIGNED P.S. COLLING

Paul F. Collins, Chief Operator Licensing Branch Directorate of Licensing

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Also, there was some question in your letter regarding who, Nine Mile Point, General Electric or General Physics personnel, would be teaching phase F and who would be certifying to the successful completion of the program. Please inform us as to who will teach the course and who will certify to successful completion of the course. In addition, please inform us if our understanding is correct that individuals who do not certify will not sit for cold examinations.

Upon receipt of this information, we will make a determination regarding cold eligibility of the individuals involved.

Based on information submitted by you, we had scheduled the written portion of the cold examinations for the week of March 3, 1974 and the cold operating tests for the week of March 23, 1974. In view of the above and other information we have regarding the status of your Technical Specification, startup procedures and your program for quality assurance for operations, we believe these dates to be unrealistic. In addition, we informed you in a letter, dated June 10, 1973, that applications should be submitted eight weeks prior to the written examination date. To date, the applications have not been received. Consequently, we will not plan on administering the examinations during the month of March.

Upon resolution of the above items, Mr. Campbell, BWR Group Leader, OLB, will make arrangements for administration of the examinations.

Sincerely,

ORIGINAL SIGNED BY E. F. COLLING

Paul F. Collins, Chief Operator Licensing Branch Directorate of Licensing

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Ningara Mohawk Power Corporation
ATTN: Mr. Rudolph R. Schneider,
Vice President-Electric
Operations
300 Erie Boulevard West
Syracuse, New York 13202

### Gentlemen:

By letter dated December 13, 1973, in accordance with the requirements of 10 CFR 50, you submitted a proposal for our approval for the Program for Requalification of AEC Licensed Personnel of the Nine Mile Point Station. We have reviewed your proposed program and we conclude that the additional information identified in Attachment A is required before we can act on your proposal.

Sincerely, ORIGINAL SIGNED DX P. F. COLLING

Paul F. Collins, Chief Operator Licensing Branch Directorate of Licensing

Enclosure:
Attachment A - Request
for Additional Information

cc: w/enclosure
Arvin E. Upton, Esquire
LeBoeuf, Lamb, Leiby & Mac Rae
1821 Jefferson Place, N.W.
Washington, D. C. 20036

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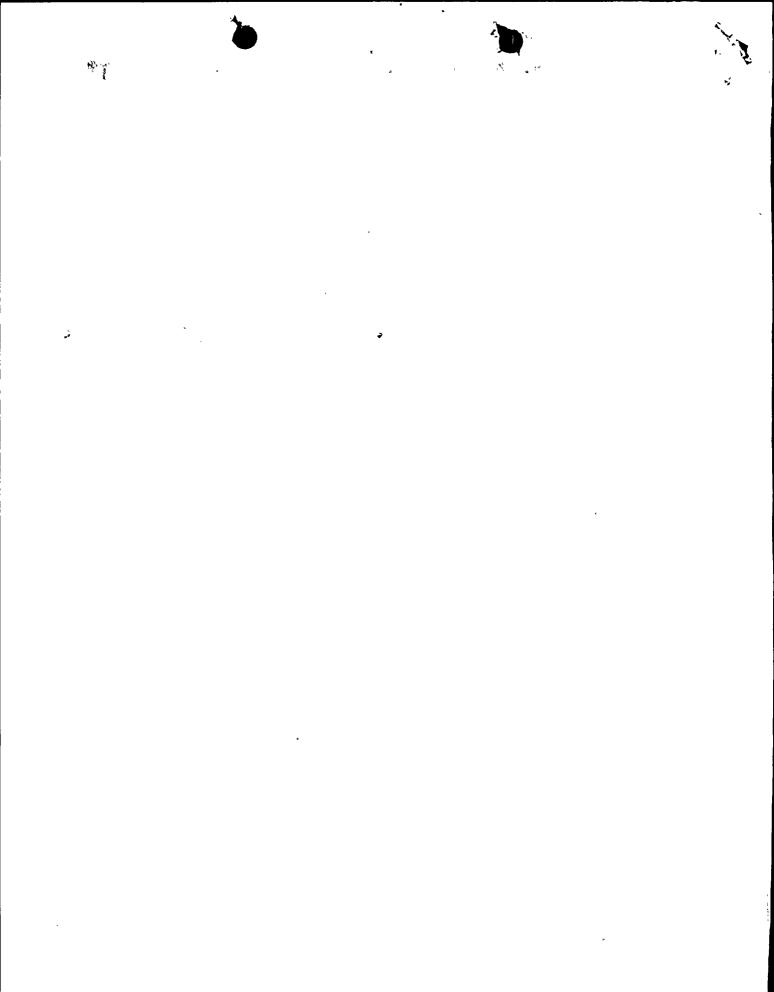
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# ATTACHMENT A REQUEST FOR ADDITIONAL INFORMATION NIAGARA MOHAWK POWER CORPORATION DOCKET NO. 50-220

- Is it the intention of Niagara Mohawk to include in the lecture series lectures on quality assurance for operation?
   We believe this subject should be covered. In addition,
   provision for contingency lectures should be made. These are lectures covering apcoming activities such as, major maintenance outages, refueling, etc.
- 2. Is it the intention of Niagara Mohawk to require a combination of reactivity manipulations to meet the required ten manipulations in two years, or would Niagara Mohawk expect credit for a single method of reactivity performed ten times? We believe a combination of manipulations more closely meets the intent of the regulation. Further, a startup should be to the point of adding heat, a shutdown should be a plant shutdown and any power changes should be in manual rod control and of at least ten percent. In addition, we do not consider control rod exercise to be an acceptable manipulation for credit.
- 3. Provide justification for not removing an employee from licensed duties when his examination results clearly indicate the need for an accelerated requalification program. We believe he should be removed from licensed duties; however, we don't believe the duration of the accelerated program needs to be specified. The scope and duration of the accelerated program can be determined by facility management on a case-by-case basis.
- 4. Provide the passing grade for the periodic written examinations. We believe this should be 80% as it is for the individual sections on the annual comprehensive examinations and that an individual scoring less than that should repeat the specific lecture or reading assignment covered on the examination.
- 5. Describe the participation of the licensed staff members in the requalification program.







August 22, 1973

Docket No. 50-220 (

Niagara Mohawk Power Corporation ATTN: Mr. Philip D. Raymond. Vice President-Engineering 300 Erie Boulevard West Syracuse, New York 13202

### Gentlemen:

The Atomic Energy Commission has amended its regulations to require operators who manipulate the controls of nuclear power reactors and other licensed production and utilization facilities to complete a requalification program or be administered a reexamination before each license renewal and to require facility licensees to carry out adequate operator requalification programs.

An amendment to Part 55, of the AEC's regulations, which was published in the Federal Register on August 17, 1973 establishes minimum requirements for requalification programs including on-the-job training and lectures on basic theories and safety systems of the specific plant. It applies to both operators and senior operators.

. An amendment to Part 50 published in the Federal Register on the same date requires that an application for a license to operate a facility must include a description and plans for implementation of an operator requalification program. Also, each facility licensee must have such a program in operation within three months after issuance of an operating license. Holders of operating licenses in effect on the effective date of these amendments, September 17, 1973, must submit an operator requalification program for Commission approval and concurrently implement that program within three months after the effective date of the amendments.

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F. ...

Niagara Mohawk Power Corp.

All power, test and reprocessing facility licensees are requested to submit the required information with one signed original and thirtynine additional copies. If a single submittal covers more than one unit at a station, one signed original and fifty-nine additional copies should be provided. All other facility licensees are requested to submit one signed original and twenty-one additional copies.

Sincerely,

D.J. Skovholt, Assistant Director

for Operating Reactors Directorate of Licensing

### Enclosure:

1. Amendment to 10 CFR Part 50 and Part 55

·cc: Arvin E. Upton, Esquire

Attorney LeBoeuf, Lamb, Leiby & MacRae

1821 Jefferson Place N.W.

Washington, D.C. 20036

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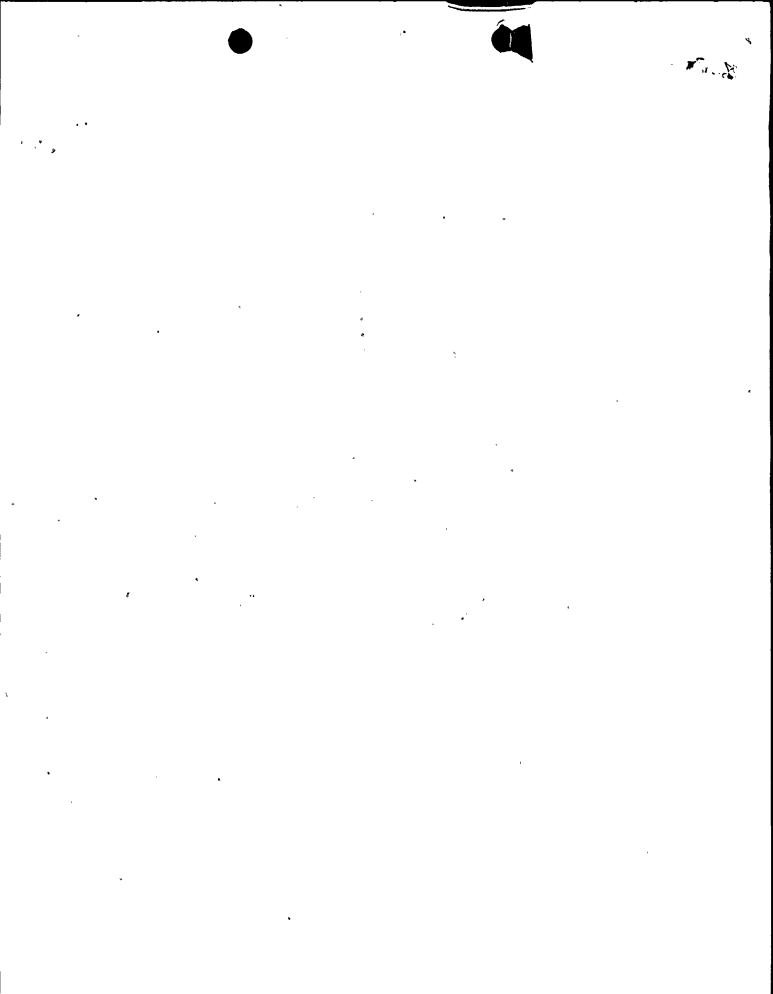
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Facility File

D.J. Skovholt

D.L. Ziemann



Dennis L. Ziemann, Chief, Operating Reactors Branch No. 2, L THRU: P. F. Collins, Chief, Operator Licensing Branch, L

### NINE MILE POINT-EMERGENCY DIESEL STARTING

In the process of administering operator exams at the subject facility in February 1973, Mr. E. Conners, OLB, was advised that a switch located on the control panels at the diesels could be in the wrong position and that this wrong position would not be annunciated in the main control room. This appears to be unusual, since similar switch at other power plants are normally annunciated in the control room if they are not positioned properly.

The subject switch is called a "Selector" switch and has two positions called "Local" and "Remote". When the D/G are in their normal standby condition and ready to start on loss of 115 KV; the subject selector switch is to be in the "remote" position per Operating Procedure 45-4.

It is my understanding that if the switch should be in the wrong position (Local), the control room would not be alerted. At present, it is not known definitely whether this switch can negate automatic starting of the D/G but we understand it will negate manual D/G starting from the control room.

Mr. E. Conners is on leave and will return March 20, if any further information is desired.

5/RJ. Compbell

R. J. Campbell OLB-BWR Group Leader

Directorate of Licensing

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Niagara Mohawk Power Corporation ATTN: Mr. Thomas J. Perkins. Station Superintendent Nine Mile Point Nuclear Station Post Office Box 32 Lycoming, New York 13093

### Gentlemen:

We have reviewed the fifteen operator and one senior operator license applications for the Nine Mile Point Nuclear Station. We find the applications to be in order with the following exceptions.

None of the applications include the details on course of instruction, including the number of course hours, administered by the facility licensee pursuant to Section 55.10(a)(6) of 10 CFR Part **55.** 

Please submit the required information for each applicant. If you prefer, you may submit one letter indicating the above information with a cover letter listing the applicants. Please submit three (3) copies of the cover letter for each individual. In addition, Mr. Paterson's application indicates that he has not manipulated the reactor controls during reactor startups. We require that applicants manipulate the reactor controls through at least two training startups in order to be eligible to sit for an examination.

Please provide us with Mr. Paterson's startup experience or your plans to have him obtain this experience.

Sincerely,

ORIGINAL P. F. Co.

Paul F. Collins, Chief Operator Licensing Branch Directorate of Licensing

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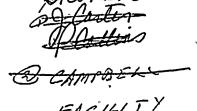
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### UNITED STATES ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

December 12, 1972



FILE

D. L. Ziemann, Chief, Operating Reactors Branch #2, L

NIAGARA MOHAWK POWER CORPORATION (NINE MILE POINT) - DOCKET NO. 50-220 INSULATION FIRE IN FEEDWATER SYSTEM

Enclosed for your information is a copy of an Inquiry Report from our Region I (Newark) Office concerning an insulation fire that occurred in the turbine building at the Nine Mile Point reactor facility on September 13, 1972. The fire was limited to the insulation on the feedwater supply line beneath the feedwater pump and resulted from a leak in the oil supply line to the turbine driven feedwater pump.

The licensee made selected inspections of relays and contacts in the turbine building that might have been affected by the fire and confirmed that no damage resulted to these components. In addition, visual inspection of the feedwater piping during a subsequent shutdown revealed no indications of problems.

As discussed with you earlier, the licensee will report this occurrence in the next Semi-annual Report.

J. J. Keppler

Enclosure: RO Inquiry Report No. 50-220/72-08

cc: L. R. Rogers, RS

R. S. Boyd, L (2)

R. C. DeYoung, L (2)
D. J. Skovholt, L (3)

D. R. Muller, L

H. R. Denton, L (2)

R. L. Tedesco, L

R. H. Vollmer, L

J. M. Hendrie, L

R. W. Houston, L

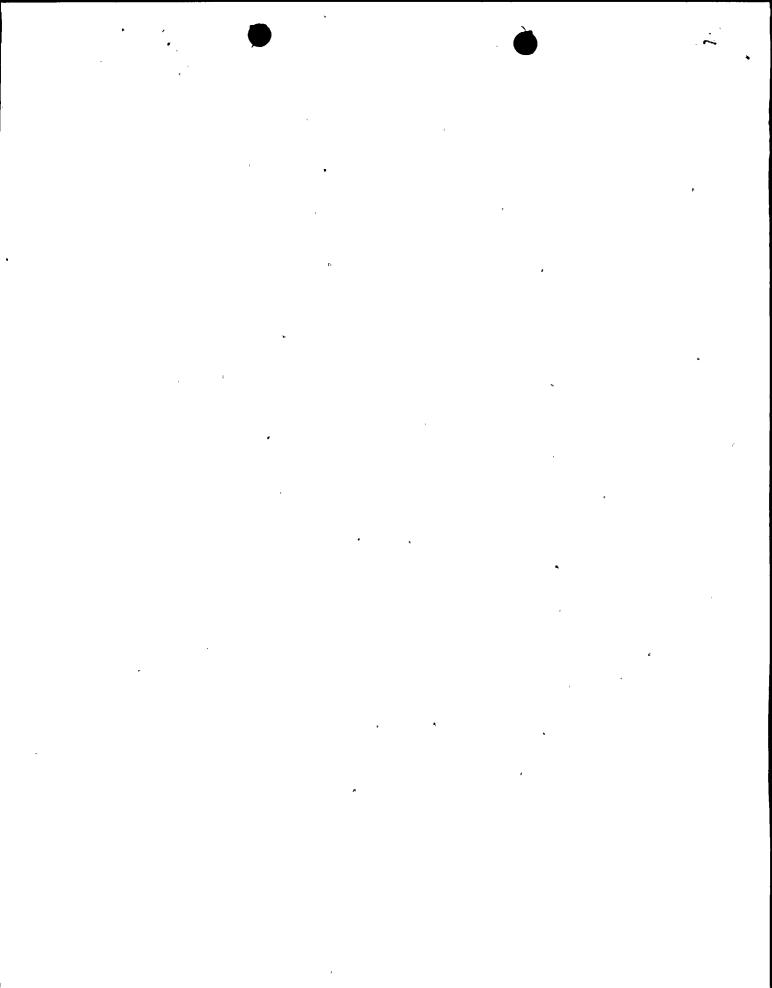
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H. D. Thornburg, RO, w/o encl.

R. H. Engelken, RO, w/o encl.

J. P. O'Reilly, RO:I

DR Central Files



#### RO INQUIRY REPORT NO. 50-220/72-08

Subject:	tN_	agara Mohawk Power Corporation	•	
	N:	ne Mile Point 1-BWR		
License	No.:	DPR-17		
• •		Insulation on Supply Line to Feewater Pump		
Prepared	by:	F. S. Cantrell, Reactor Inspector	9/20/72 / Dáte	

#### A. Date and Manner AEC was Informed

September 14, 1972 by telephone call from Mr. Roland Smith, Maintenance Supervisor.

#### B. Description of Particular Event or Circumstance

Mr. Smith stated that a smoldering insulation fire was found in the turbine building at 5:30 p.m. September 13, 1972. As a result of a leak in the oil supply line to the turbine driven feedwater pump, the insulation on the feedwater supply line beneath the pump became soaked with oil. The oil leak had been repaired during a shutdown, September 9-10, 1972. The fire was centered in the pipe sleeve in the concrete below the feedwater pump. Mr. Smith stated that the fire, the source of which was believed to be autoignition, did not pose a threat to the safe operation of the plant, or equipment in the vicinity of the fire. Operation of the plant continued throughout the occurrence.

#### C. Action by Licensee

1. A maintenance crew was assembled and, using respiratory protection, the insulation was dug out of the pipe sleeve from below. The oil soaked insulation burst into flames as it was exposed to the oxygen in the air; however, personnel were standing by with fire extinguishers to extinguish the fire as the insulation was removed. Approximately 5 feet of insulation was removed.



### UNITED STATES ATOMIC ENERGY COMMISSION

DIVISION OF COMPLIANCE REGION I 970 BROAD STREET NEWARK, NEW JERSEY 07102

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Mr. Smith stated that the only threat to equipment was a cable tray located approximately 6 feet west of the water pipe and that this was only a threat during the period while insulation was being removed.

A visual inspection of the carbon steel piping indicated no damage.

The oil on the insulation was determined to be Mobil DTE-797 turbine oil with a minimum flash point of 405°F. Mr. Smith stated that the vendor would be contacted to determine how autoignition could occur with temperatures in the vicinity of 350°F.

Mr. Smith stated that NMP did not plan to make a separate report of this event; however, the details would be covered in the semi annual report of operation.



## UNITED STATES ATOMIC ENERGY COMMISSION

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## UNITED STATES ATOMIC ENERGY COMMISSION DIRECTORATE OF REGULATORY OPERATIONS REGION 1

970 BROAD STREET NEWARK, NEW JERSEY 07102.

FAC FILE

J. G. Keppler, Chief, Reactor Testing & Operations Branch Directorate of Regulatory Operations, HQ

RO INQUIRY REPORT NO. 50-220/72-11Q NIAGARA MOHAWK POWER CORPORATION NINE MILE POINT 1

The subject inquiry report is forwarded for your information.

A special site inspection is in progress to review the details of this occurrence and the licensee's actions preparatory to resumption of operations. Our inspection findings will be documented in an inspection report to be submitted in the near future. The licensee will submit a written report (10 days) to Licensing. Distribution will be made by this office to the PDR, LPDR, NSIC, DTIE and State representatives after review by the licensee for proprietary information.

R. T. Carlson, Chief, Reactor Operations Branch

Enclosure:

Subject Inquiry Report No. 50-220/72-110

cc: RO Chief, Reactor Testing & Operations Branch, HQ

RO:HQ (5)

DR Central Files

Regulatory Standards (3)

Directorate of Licensing (13)

PDR

Local PDR

NSIC

DTIE

State of New York



## UNITED STATES ATOMIC ENERGY COMMISSION

DIVISION OF COMPLIANCE REGION I 970 BROAD STREET NEWARK, NEW JERSEY 07102

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## UNITED STATES ATOMIC ENERGY COMMISSION DIRECTORATE OF REGULATORY OPERATIONS REGION 1

970 BROAD STREET NEWARK, NEW JERSEY 07102

#### RO Inquiry Report No. 50-220/72-110

Licensee:

Niagara Mohawk Power Corporation

300 Erie Boulevard West Syracuse, New York 13202

License. No::

DPR-17

Facility:

Nine Mile Point

Descriptive Title:

Equipment Failure - Apparent Drift In Safety

Valve Setpoint

Prepared by:

T. Young, Jr., Reactor Inspector

Date

A. Date and Manner AEC was Informed:

By telephone call from the licensee on November 19, 1972.

B. Description of Particular Event or Circumstance:

A primary system safety valve mounted on the reactor vessel head actuated following a turbine trip and reactor scram at the Nine Mile Point reactor on November 19, 1972. Actuation of the safety valve resulted in release of some primary steam to the containment drywell. The following preliminary information was provided by the licensee:

At 5:30 a.m. on November 19, 1972, while operating at full power (620 MWe) a turbine trip and reactor scram occurred while performing routine surveillance tests on the turbine thrust bearing wear detector. A faulty bypass switch on this detector caused the turbine trip. The main steam isolation valves remained open and the turbine bypass valves opened to control pressure; however, the reactor pressure increased to a maximum of 1083 psig, at which point one safety valve prematurely relieved for a period of nine seconds (valve setpoint - 1226 psig). The electromatic relief valves did not operate (lowest valve setpoint - 1085 psig). Drywell pressure increased from 0.7 to

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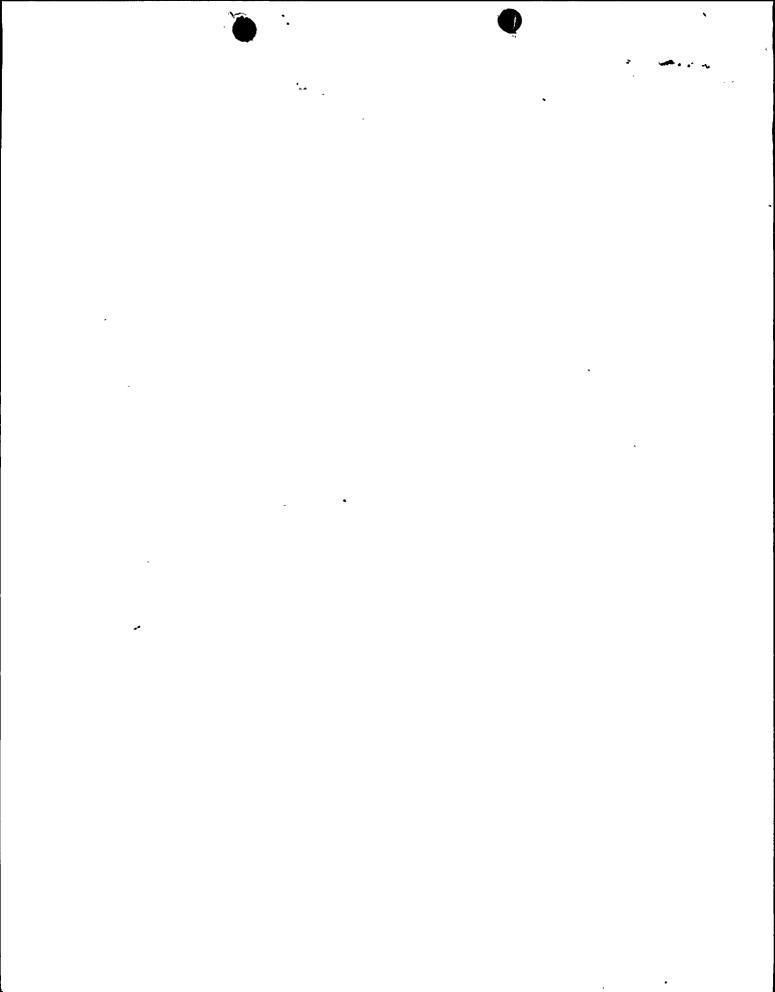
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2.6 psig (high drywell pressure alarm setpoint - 3.5 psig). Approximately 300 gallons of water were collected in the floor drain collector tank as a result of the steam release to the containment drywell.

Damage appears to be limited to insulation on the reactor vessel head, some paint on the drywell wall, and the reference chamber on the containment leak rate test equipment. No significant radioactivity releases to the environment or personnel exposures resulted from the occurrence. The plant was brought to cold shutdown conditions.

#### C. Action by Licensee:

- 1. The faulty safety valve is being replaced with a spare, and this valve will be disassembled to determine the cause of the apparent setpoint drift.
- 2. The insulation on the reactor vessel head and the reference chamber on the containment leak rate test equipment will be repaired.
- 3. The licensee will submit a written report within 10 days, to the Directorate of Licensing pursuant to paragraph 6.7.1 of the Technical Specifications.



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No. 75

Date 11/24/72

### DIRECTORATE OF REGULATORY OPERATIONS NOTIFICATION OF AN INCIDENT OR OCCURRENCE

Encurry she

Facility: NIAGARA MOHAWK POWER CORPORATION (NINE MILE POINT 1)

#### Problem:

RO Region I (Newark) was informed by the licensee by telephone on Nobember 19, 1972, that a primary system safety valve had actuated earlier that day following a reactor scram at the Nine Mile Point reactor. The actuation of the valve resulted in release of primary steam to the containment drywell. The following preliminary information was provided by the licensee:

At 5:30 a.m. on November 19, 1972, with the reactor operating at full power (620 Mwe), a turbine trip occurred resulting in a reactor scram. The turbine trip resulted from a faulty bypass switch in the turbine protective circuitry. During the ensuing transient, reactor pressure increased to a maximum of 1083 psig, at which point one of the safety valves installed on the reactor vessel head (setpoint 1226 psig), opened prematurely for a period of 9 seconds. The drywell pressure increased to 2.6 psig and the maximum drywell temperature was 120°F. There was no significant change in reactor water level and the occurrence did not initiate actuation of any of the engineered safe-Approximately 300 gallons of primary water were collected in the drywell floor drain collector tank. Containment integrity was maintained until the atmosphere in the drywell had been sampled to determine that radioactivity levels were sufficiently low to permit release. The effect of the steam release was limited to minor insulation damage on the reactor vessel head and some of the paint on the drywell wall. No significant radioactivity releases to the environs or personnel exposures resulted from the occurrence.

The plant is presently in the cold shutdown condition. The cause of the premature actuation of the safety valve is being investigated by the licensee. The licensee plans to return the reactor to power following replacement of the malfunctioning safety valve and completion of the investigation of the occurrence.

#### Action:

- 1. An RO inspector is at the site to obtain detailed information on the occurrence. Further action by RO will be based on the results of the inspection.
- 2. The state of New York and the Northeast Office of the Division of Public Information have been informed by telephone.
- 3. Commissioner Ramey's Technical Assistant, Commissioner Doub's Technical Assistant and the Staff of the Joint Committee on Atomic Energy are being informed by copy of this notification.

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#### Contact:

Further information on this problem can be obtained from:

D. C. Kirkpatrick - X7421

J. G. Keppler - X7421

R. H. Engelken - X7356

#### Distribution:

Chairman Schlesinger - Commissioner Ramey

Commissioner Ramey Commissioner Larson

Commissioner Doub-

Commissioner Ray

L. M. Muntzing, DR

E. J. Bloch, DDR

C. K. Beck, DRGL

S. H. Hanauer, DRTA

D. J. Donoghue, DRA

W. MacDonald, OPS

General Manager (2)

Secretary (2)

J. Fouchard, IS

M. Shaw, RDT

J. A. Harris, IS

E. J. Bauser, JCAE.

J. H. Rubin, AGM

J. D. Anderson, INS

F. Ingram, IS

M. Biles, OS

R. F. Fraley, ACRS (3)

L. R. Rogers, RS

J. B. Minogue, RS

J. J. Davis, RS

J. F. O'Leary, L

E. G. Case, L

J. M. Hendrie, L

A. Giambusso, L

F. Schroeder, L

S. H. Smiley, L

R. S. Boyd, L

D. J. Skovholt, L

R. C. DeYoung, L

D. R. Muller, L.

D. F. Knuth, L

R. R. Maccary, L

R. L. Tedesco, L

H. R. Denton, L

D. A. Nussbaumer, L

R. E. Cunningham, L

F. E. Kruesi, RO

P. A. Morris, RO

H. D. Thornburg, RO

T. R. Wilson, RO

R. H. Engelken, RO

D. Thompson, RO

R. D. O'Neill, OCR

J. R. Totter, DBER

J. D. Goldstein, DBER

G. A. Arlotto, RS

S. Levine, OEA

D. L. Ziemann, L

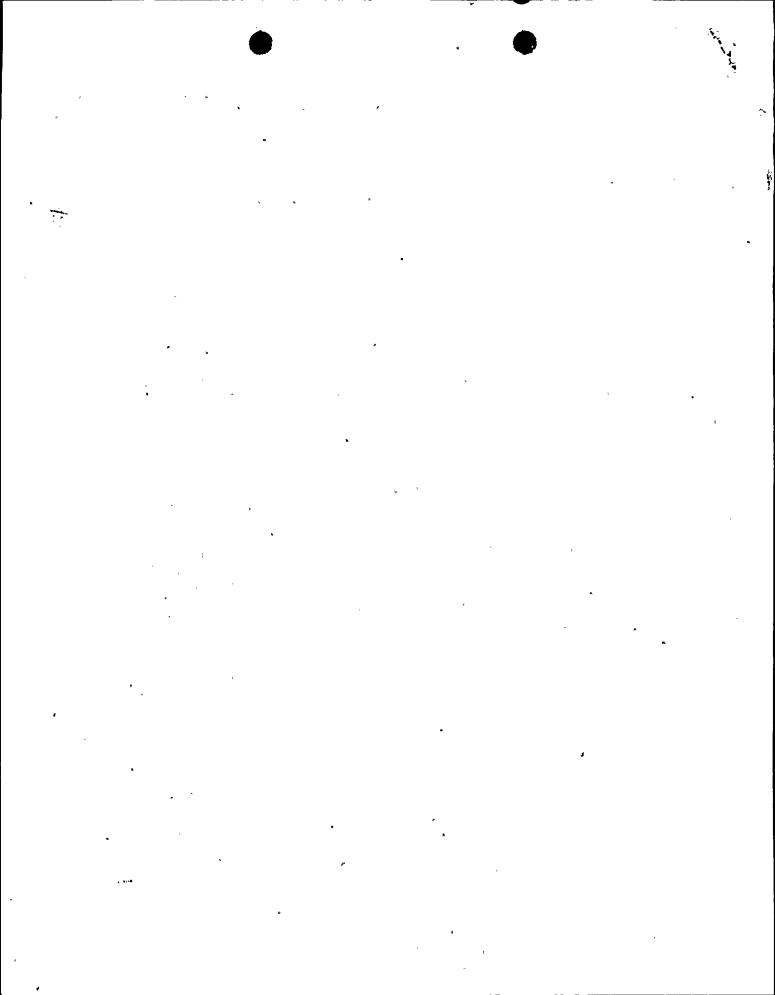
RO Regional Offices

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PDR

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# UNITED STATES ATOMIC ENERGY COMMISSION DIRECTORATE OF REGULATORY OPERATIONS REGION 1

970 BROAD STREET NEWARK, NEW JERSEY 07102 Collins FACILITY ILE

SEP 29 1972

J. G. Keppler, Chief, Reactor Testing & Operations Branch Directorate of Regulatory Operations

RO INQUIRY REPORT NO. 50-220/72-09
NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT 1 - BWR
EQUIPMENT FAILURE - SHUTDOWN DUE TO SEAL LEAKAGE

The subject inquiry report is forwarded for your information.

Technical Specifications require the licensee to monitor the reactor coolant system leakage once per day; however, due to the approach to limits, the licensee was monitoring leakage once per hour. The licensee indicated that when the reading showed 25.0 gpm a reactor shutdown was initiated. During the next inspection, we intend to pursue the question of adequacy of conservatism in the licensee's actions.

R. T. Carlson

Acting Sr. Reactor Inspector Reactor Operations Branch

Enclosure: Subject Inquiry Report

cc: R. S. Minogue, RS (3)

R. S. Boyd, L (2)

R. C. DeYoung, L (2)

LD. J. Skovholt, L (3)

H. R. Denton, L (2)

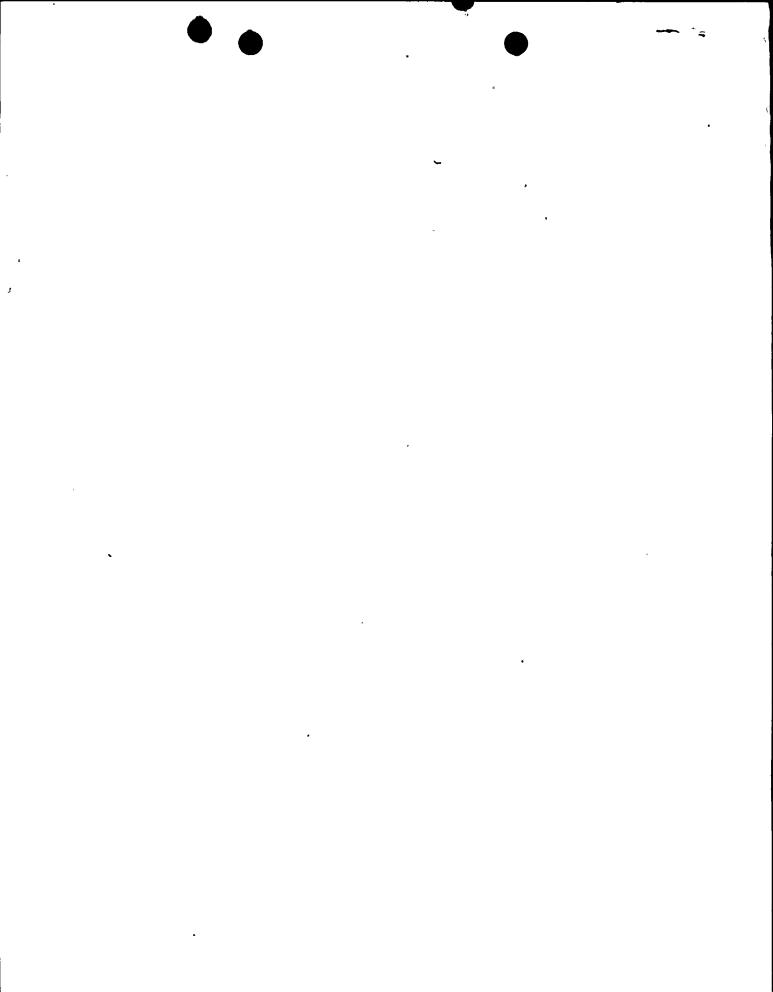
P. A. Morris, RO

H. D. Thornburg, RO

R. H. Engelken, RO

RO Files

DR Central Files



#### RO Inquiry Report No. 50-220/72-09

Subject: Niagara Mohawk Power Corporation	
Facility: Nine Mile Point 1 - BWR	
License No.: DPR-17 ·	
Title: Equipment Failure - Shutdown Due to Seal Leakage	
Prepared by: Resolve Topogram	9/29/72 Date
F. S. Cantrell, Reactor Inspector	, pace

#### A. Date & Manner AEC was Informed:

September 21, 1972 by telephone call from Mr. P. A. Burt, General Superintendent.

#### B. Description of Particular Event or Circumstance:

Mr. Burt stated that the total\* leakage increased from 12 gpm on September 18 to 25.0 gpm at 5:00 p.m. on September 20 (Technical Specification limit - 25.0 gpm). When the limiting leak rate was reached, a controlled reactor shutdown was initiated. Power was leveled at a reactor pressure of 300 psi in order to be able to identify the source of the leakage, which was determined to be the No. 11 recirculation pump seal. Seal leaks were also identified on two recirculation pump isolation valves. Mr. Burt stated that leakage decreased as reactor power and pressure were lowered, and that 25.0 gpm was the maximum total leak rate observed.

#### C. Action by Licensee:

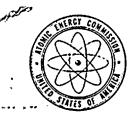
Valves and pump packings were replaced and/or tightened. The valves were checked for operability and the limitorque settings were adjusted as necessary. During the check out, the shaft in the limitorque operator of the No. 11 pump suction valve failed. (See RO Inquiry Report No. 50-220/72-10Q.) The licensee plans to submit one written 10 day report to cover both events.

<sup>\*</sup>Identified and unidentified.

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# UNITED STATES ATOMIC ENERGY COMMISSION WASHINGTON, D.C. 20545

P. Collins

August 24, 1972

FILE

D. L. Ziemann, Chief, Operating Reactors Branch #2, L

NIAGARA MOHAWK POWER CORPORATION (NINE MILE POINT) - DOCKET NO. 50-220 FAILURE OF REFUELING GRAPPLER

Enclosed for your information is a copy of an Inquiry Report from our Region I (Newark) Office concerning a failure of the refueling grappler on August 14, 1972, at the Nine Mile Point reactor facility.

We are currently considering issuing a Reactor Operating Experience report to all licensees regarding this failure.

J. Keppler, Chief,

Reactor Testing and Operations

Branch

Directorate of Regulatory Operations

Enclosure: RO Inquiry Report No. 50-220/72-07

cc: L. R. Rogers, RS (3)

R. S. Boyd, L (2)

R. C. DeYoung, L (2)

D. J. Skovholt, L (3)

H. R. Denton, L (2)

P. A. Morris, RO, w/o encl.

H. D. Thornburg, RO, w/o encl.

R. H. Engelken, RO, w/o encl.

J. P. O'Reilly, RO:I

J. G. Davis, RO:II

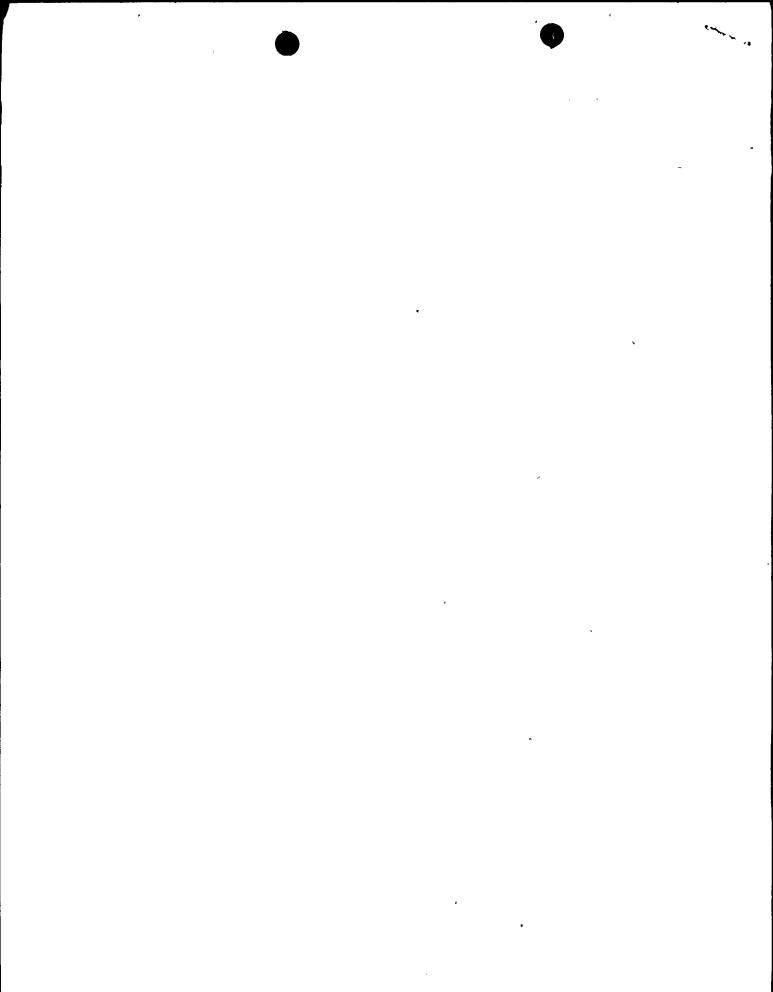
B. H. Grier, RO:III

J. W. Flora, RO:IV

R. W. Smith, RO:V

R. T. Carlson, RO:I, w/o encl.

DR Central Files



#### RO Inquiry Report No. 50-220/72-07

Subject: Niagara Mohawk Power Corporation .
North the Wile Wile Date 1 DID
Facility: Nine Mile Point 1 - BWR
License No.: DPR-17
Title: Equipment Failure - Refueling Grappler
Prepared by:
F S Cantrall Reactor Inspector

8/15/72

#### A. Date and Maimer AEC was Informed:

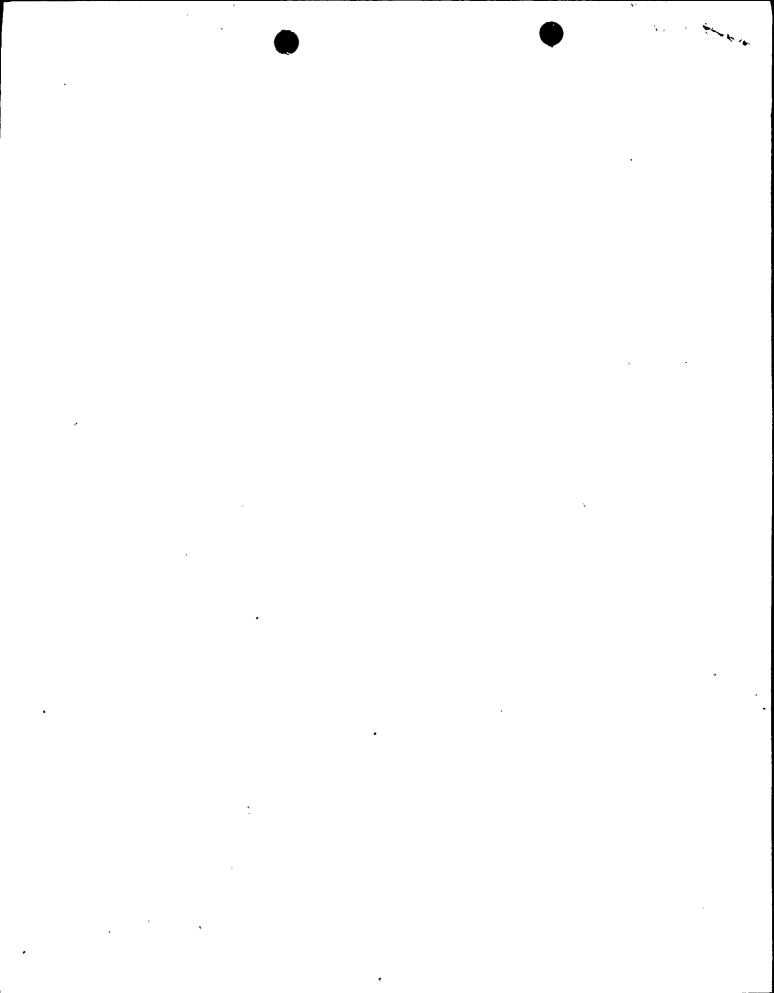
August 14, 1972, by telephone call from Mr. T. Perkins, Station Superintendent.

#### B. Description of Particular Event or Circumstance:

A piece of wood that was attached to a viewing float in the spent fuel pool to provide buoyance became water logged and sank. The refueling grappler was used in an attempt to retrieve the wood from the spent fuel pool. During retrieval, the "up drive" limit failed. The drive cable broke, allowing the grappler to fall on an empty spent fuel rack.

#### C. Action by Licensee:

The licensee stated that he planned to submit an information report to the Commission on this failure after it had been investigated by NMPC and General Electric. This investigation is scheduled for August 15, 1972.





## UNITED STATES, ATOMIC ENERGY COMMISSION DIRECTORATE OF REGULATORY OPERATIONS REGION 1

970 BROAD STREET
NEWARK, NEW JERSEY 07102

RO Inquiry Report No. 50-220/72-100

Licensee:

Niagara Mohawk Power Corporation

300 Erie Boulevard West Syracuse, New York 13202

License No.:

DPR-17

Date and Manner AEC was Informed:

Facility:

Nine Mile Point 1 - BWR

Scriba, New York

Descriptive Title:

Equipment Failure - Broken Shaft in Operator for

Recirculation Pump Suction Valve

Prepared by:

F. S. Cantrell, Reactor/Inspector

9/29/72

Date

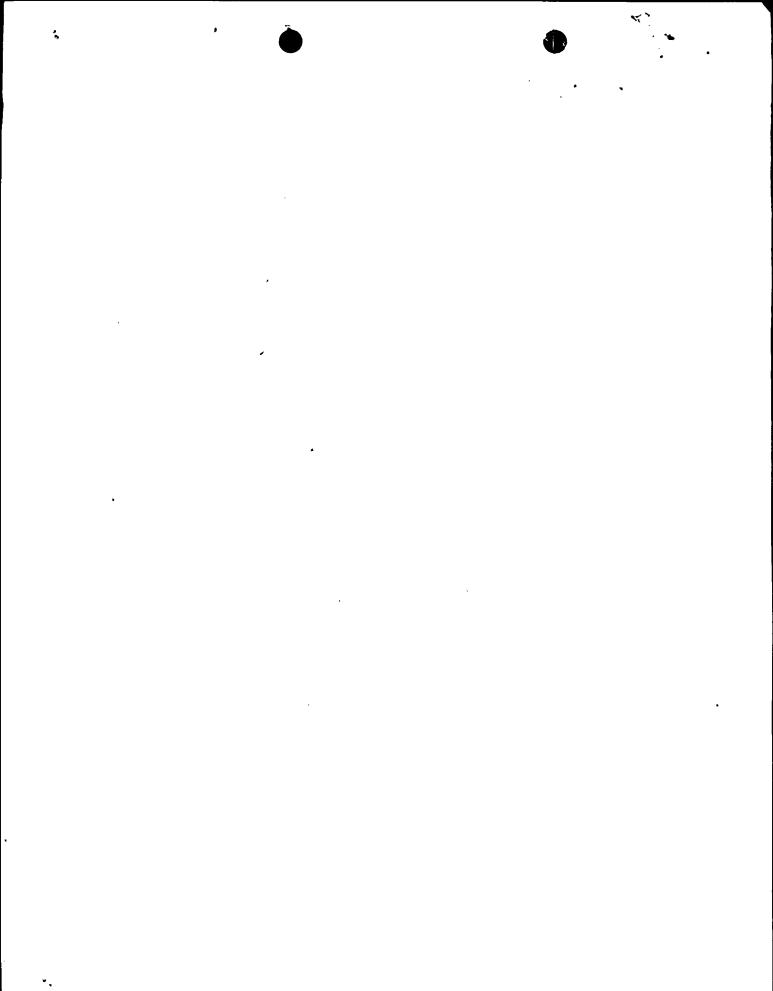
September 25, 1972, by telephone call from the licensee.

B. Description of Particular Event or Circumstance:

The shaft in the motor operator for the No. 11 recirculation pump suction valve failed during verification of operability following replacement of the valve packing and a re-adjustment of the limit switches in the operator. The plant was shut down at the time of the failure to repair reactor coolant system leaks in the drywell. The failed valve operator is a Limitorque operator, Model SMA-51.

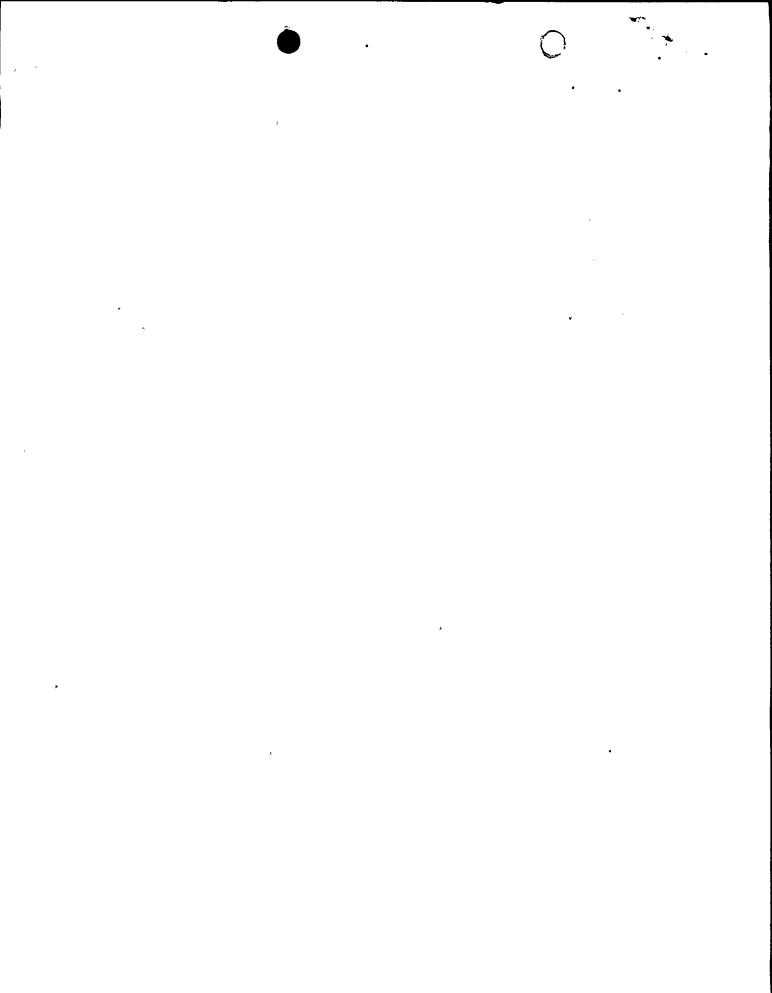
#### C. Action by Licensee:

- 1. The valve operator was removed and the valve manually closed. With both the suction and discharge valves in the line in the closed position, reactor startup was initiated on September 24, 1972 to approximately 86% of authorized power.
- 2. Assuming the availability of replacement parts for this valve operator, the plant will be shut down to effect repair



during the weekend of October &, 1972.

- 3. A vendor's representative examined the failed shaft and other components of the subject operator. The preliminary evaluation indicated that the shaft metal had crystalized prior to failure.
- 4. The cause of failure will be included in the licensee's report (10 day) to the Directorate of Licensing.





# UNITED STATES ATOMIC ENERGY COMMISSION DIRECTORATE OF REGULATORY OPERATIONS REGION 1

970 BROAD STREET NEWARK, NEW JERSEY 07102

AUG 8 1972

CAMPBELL MANAGER

EXCLUTY FRE

J. G. Keppler, Chief, Reactor Testing & Operations Branch Directorate of Regulatory Operations, HQ

RO INQUIRY REPORT NO. 50-220/72-06 NIAGARA MOHAWK POWER CORPORATION NINE MILE POINT 1 - BWR TECHNICAL SPECIFICATION VIOLATION

The subject inquiry report is forwarded for your information.

A routine telephone contact was made with Mr.-Burt at 8:45 a.m. on July 31, 1972. At that time, the licensee did not know the precise time that the 24 hour period would expire. In a followup telephone call by the inspector at 10:15 a.m., he stated that the period expired at 10:00 a.m. The 10:00 a.m. time was also given in a phone conversation between Mr. Burt and myself at 11:00 a.m. In a subsequent telephone call from Mr. Burt at 2:45 informing us that the 0 concentration was 3.9%, the 7:00 a.m. figure for the end of the 24 hour period was provided. The licensee was advised during all of the phone conversations that in order to get relief from the less than 5% 02 after 24 hours requirement he would have to request a Technical Specification change from Licensing. He did not contact Licensing until after 10:15 a.m. He stated he was advised that it would be safer to remain at a constant power than to shut down.

We plan to discuss this matter further with NMP management in the near future.

The licensee plans to submit a 10 day written report to Licensing.

D. S Moden for R. T. Carlson, Chief

R. T. Carlson, Chier Reactor Operations Branch

Enclosure:
Subject Inquiry Report

cc: R. Minogue, RS (3)

R. S. Boyd, L (2)

R. C. DeYoung, L (2)

D. J. Skovholt, L (3)

H. R. Denton, L (2)

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P. A. Morris, RO

H. D. Thornburg, RO

R. H. Engelken, RO

RO Files

DR Central Files

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#### RO Inquiry Report No. 50-220/72-06

Subject: Nia	gara Mohawk Power Corporation	
Facility: Ni	ne Mile Point - BWR	
License No.:_	DPR-17	
Title: Techn	ical Specification Violation - High Ox	cygen Concentration -
Drywe	.11	•
Prepared by:_	F. S. Cantrell, Reactor/Inspector	8/7/72 Date
	r. b. danticity Medopoly inspected	2475

#### A. Date and Manner AEC was Informed:

July 31, 1972, by several telephone conversations with Mr. P. A. Burt, General Superintendent.

#### B. Description of Particular Event or Circumstance:

Mr. Burt stated that NMP-1 had ordered nitrogen (from Ohio) to inert the drywell; however, it did not appear that the trucks would arrive in time to reduce the  $0_2$  content of the drywell to less than 5% within the 24 hour period after startup as required by Technical Specifications. Power level was 345 MWe (approximately 55%). Subsequently, it was determined that the "24 hour period" elapsed at 7:00 a.m. on July 31, 1972. The nitrogen supply arrived prior to 11:00 a.m. and purging the drywell with nitrogen started immediately. Analysis showed that the  $0_2$  content had been reduced to 3.9% at 1:45 p.m.

#### G. Action by Licensee:

Reactor power level was held at 345 MWe until the  $0_2$  content in the drywell was reduced to less than 5%.

The licensee plans to submit a 10 day written report as required by the Technical Specifications.

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JUN 4 1971

DISTRIBUTION:
DRL R/F
Branch R/F
Fac. File
DJSkovholt, DRL

Dennis L. Ziemann, Chief, ORB #2 THRU: P. F. Collins, Chief, OLB

#### ROD WORTH MINIMIZER

During the demonstration examination at <u>Niagara Mohawk Power Corporation's</u> Nine Mile Point Reactor on May 15, 1971, I observed improper operating procedures and a possible Technical Specification violation in regard to operation with the RWM inoperative.

I was informed in the briefing that the RWM was out of service and this function would be performed by a licensed operator. When the startup demonstration began, the "RWM" operator held the only copy of the rod withdrawal sequence and called out the rod movements to the examinee who never checked the printed sequence.

Under Surveillance Requirement on page 23, the Technical Specification requires, "If the rod worth minimizer is not operable, a second licensed operator or qualified technical station employee shall verify that the operator at the reactor console is following the rod program." The same wording is used in the Operating Procedures on page 37-5. While looking at the procedure, I asked the examinee if the RVM function had been performed correctly when he was operating the reactor. He said, "This is the way we have always done it."

It was demonstrated that the procedure being used did not provide RWM protection. The RWM operator called for rod 26-07 to be moved from notch 4 to 8. When the rod was selected, it was still at notch 0; having been skipped on the previous pull. The "RWM" operator said it was his fault.

My concern about the RWM program was expressed at the exit interview with Tom Lempges, Operating Supervisor. Mr. Lempges indicated that the RWM supplied by GE had never functioned satisfactorily. He said that part of the problem was poor maintenance in that not enough time was alloted during outages to get the RWM running. I informed him that other GE plants, referring specifically to Monticello, had made their RWM work. Mr. Lempges seemed to agree with my concern on this subject but made no indication of positive correction action.

original signed by

DATE DESCRIPTION OF REACTOR LICENSING FLConner: PS

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### UNITED STATES ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

February 1.2, 1970

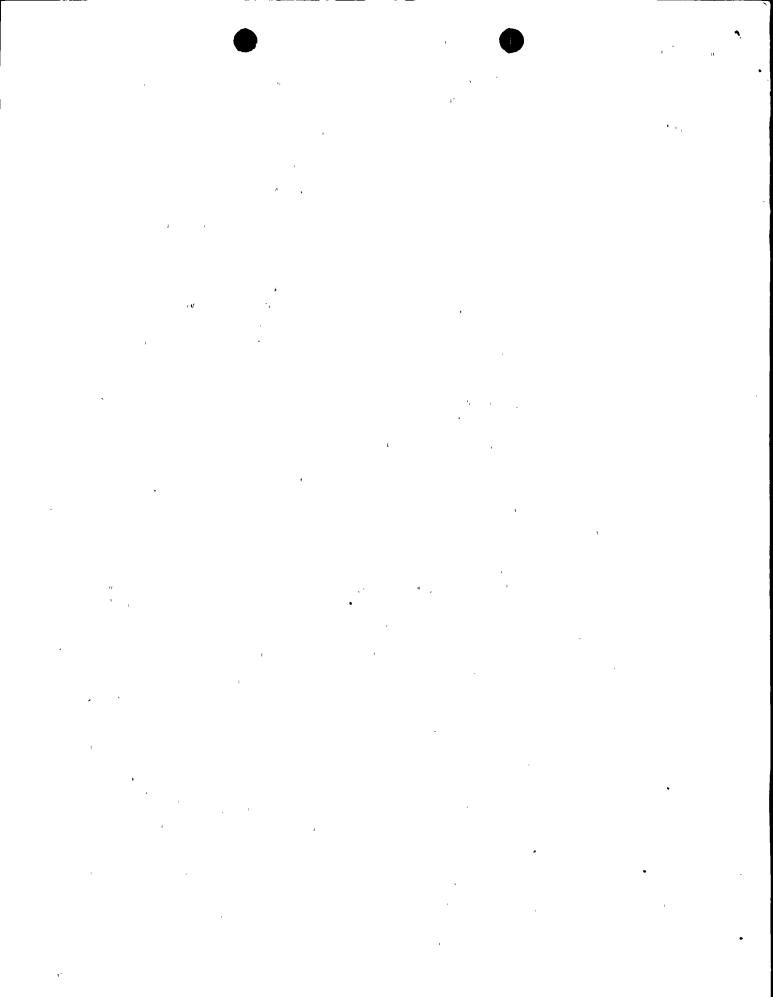
TO LICENSEES OF OPERATING NUCLEAR POWER STATIONS

We are currently reevaluating the methods used by facility licensees to ensure that licensed personnel at operating nuclear power stations are retaining competence in all areas of reactor operation, including emergency situations. In addition, we are assessing the effects of the different designs and expected operating schedules of current generation plants on the maintenance of operator competence.

Many of the nuclear power stations that are presently under construction and/or planned are designed to operate base-loaded almost continuously for two years between fuel loadings. In such cases, the members of the operating staff will have little opportunity to participate in transient and infrequent operations such as startups, shutdowns, and power changes. Hence, the value of operating experience, per se, in maintaining competence will be diminished and the importance of retraining will be emphasized to a greater extent than at present.

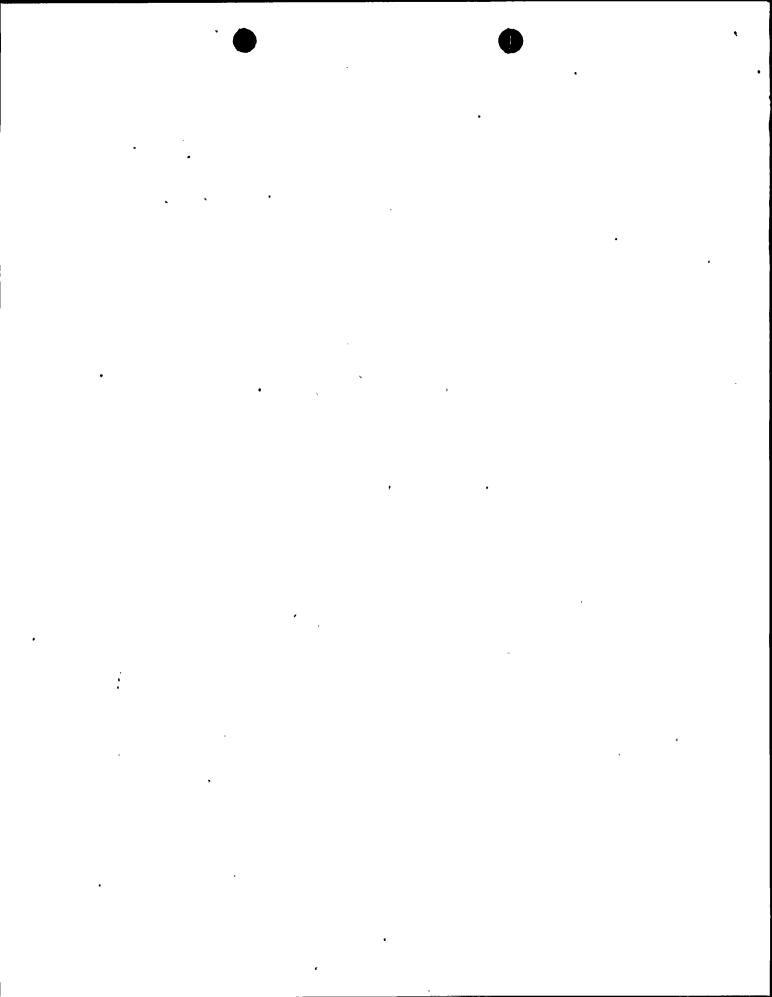
The facility licensee is responsible for ensuring the continued competence of the operating staff. Our regulations provide that the Commission audit the initial determinations of competence of operators and senior operators by means of examination and licensing and periodically audit the licensee's determinations of continued competence every two years in the process of operator license renewal. The eligibility of a licensed operator for renewal of his license is dependent, in part, upon the Commission's determination that he is capable of continuing to discharge his responsibilities competently and safely. The amount and type of retraining that is provided bears on the probability of continued competence.

Although the applications for renewal of operator and senior operator licenses often contain some information on retraining of the individuals involved, they do not state the prescribed retraining requirements of the facility licensee nor do they indicate the methods employed by managements to evaluate the programs and their results. We request that you provide a comprehensive description of your facility's



retraining program, including the methods employed to evaluate the performance of individuals. The information should include, but not necessarily be limited to, the following:

- 1. Do you conduct a formal retraining program consisting of scheduled classroom lectures? If so, what subjects are covered? What is the length and frequency of the lectures? Are examinations administered and results recorded?
- 2. Who is responsible for developing and for administering the retraining program? Who conducts each of the various phases of the program?
- 3. What mechanism is used to assure that all members of the operating staff are knowledgeable of new procedures, procedure changes, license changes, unusual occurrences and equipment malfunctions?
- 4. Do you have a requirement that operators perform certain tasks, such as reactor startups and shutdowns, periodically as operations permit? If so, are records maintained? Do you evaluate their performance?
- 5. Do you require periodic simulation of emergency procedures by the shift crews? If so, do you evaluate their performance? Are records maintained? What other specific aspects of the retraining program serve to maintain operator competence to respond properly in the unlikely event of a major accident?
- 6. Do you conduct periodic fire drills and/or evacuation drills? Is performance evaluated?
- 7. Do you receive any assistance from organizations other than your own in conducting the retraining program? What is their function?
- 8. What training aids, e.g. simulators, films, video tapes, programmed learning machines or texts, models, are utilized in the program? How?

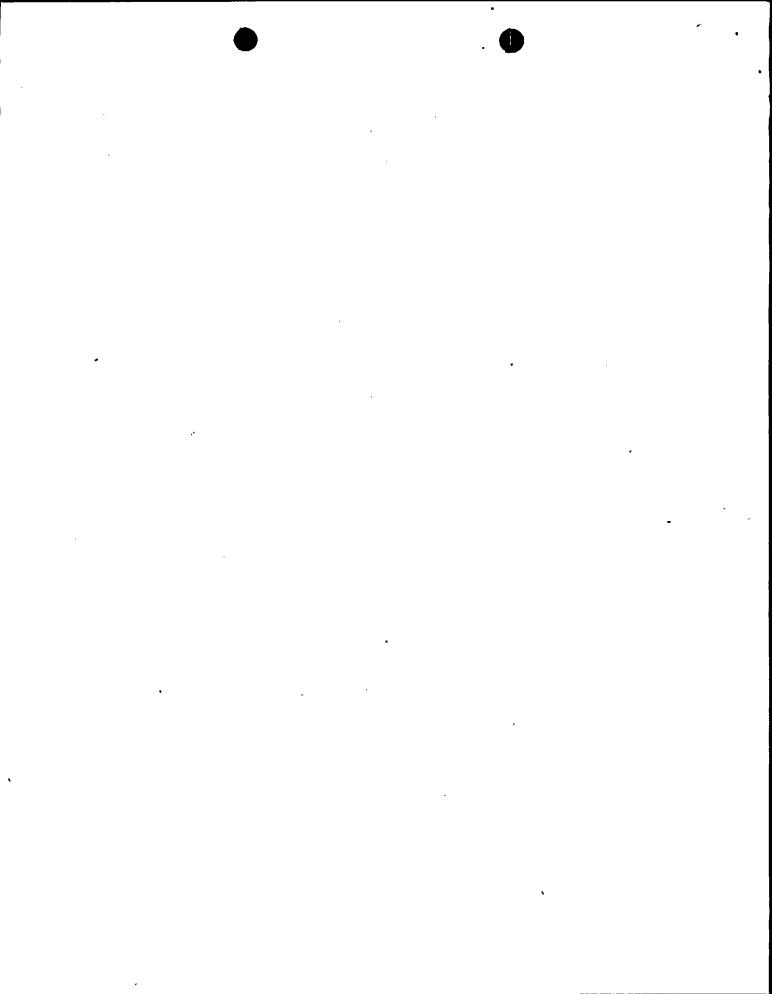


- 9. Distinguish between the minimum retraining requirements for operators and senior operators.
- 10. How do you evaluate individual competence in support of the certifications that you submit in applications for operator and senior operator licenses?

We would appreciate receiving the retraining program descriptions within sixty days of the date of this letter.

Peter a. Mound

Peter A. Morris, Director Division of Reactor Licensing



## ADDRESSEE LIST FOR LETTER TO LICENSEES OF OPERATING NUCLEAR POWER STATIONS

## Docket No. 50-3

Consolidated Edison Company of New York, Inc. 4 Irving Place New York, New York 10003

Attention: Mr. William J. Cahill, Jr. Vice President

## Docket No. 50-238

First Atomic Ship Transport Inc. River and First Streets Hoboken, New Jersey 07030

Attention: Mr. R. O. Mchann Executive Vice President

## Docket No. 50-220

Niagara Mohawk Power Corporation 300 Erie Boulevard West Syracuse, New York 13202

Attention: Mr. Minot H. Pratt Vice President & Executive Engineer

## Docket Nos. 50-10 (Unit #1) & 50-237 (Unit #2)

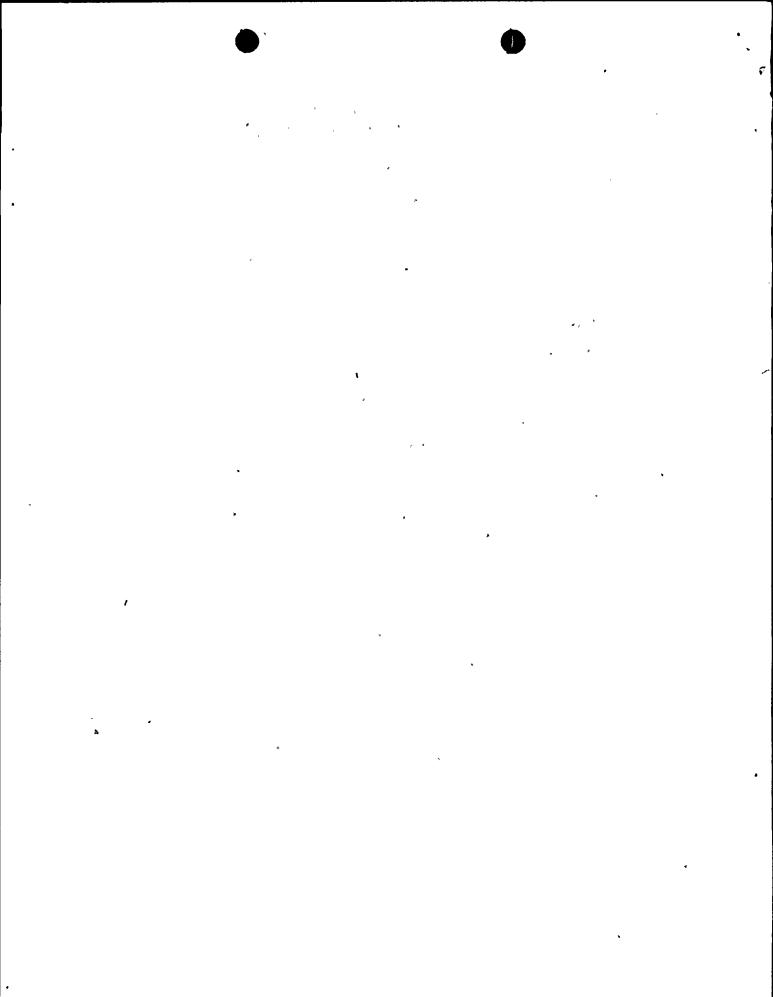
Commonwealth Edison Company One First National Plaza Chicago, Illinois 60690

Attention: Mr. Henry E. Bliss
Nuclear Licensing Administrator

#### Docket No. 115-5

Dairyland Power Cooperative 2615 East Avenue South La Crosse, Wisconsin 54601

Attention: Mr. John P. Madgett General Manager



## Docket No. 50-155

Consumers Power Company 212 West Michigan Avenue Jackson, Michigan 49201

Attention: Mr. Robert L. Hauter
Electric Production
Superintendent - Nuclear

## Docket No. 50-133

Pacific Gas & Electric Company 245 Market Street San Francisco, California 94106

Attention: Mr. Richard H. Peterson
Senior Vice President & General Counsel

## Docket No. 50-219

Jersey Central Power & Light Company Madison Avenue at Punch Bowl Road Morristown, New Jersey 07960

Attention: Mr. George H. Ritter Vice President

## Docket No. 50-146

Saxton Nuclear Experimental Corporation Post Office Box 542 Reading, Pennsylvania 19603

Attention: Mr. C. R. Montgomery General Manager

## Docket No. 50-213

Connecticut Yankee Atomic Power Company Post Office Box 270 Hartford, Connecticut 06101

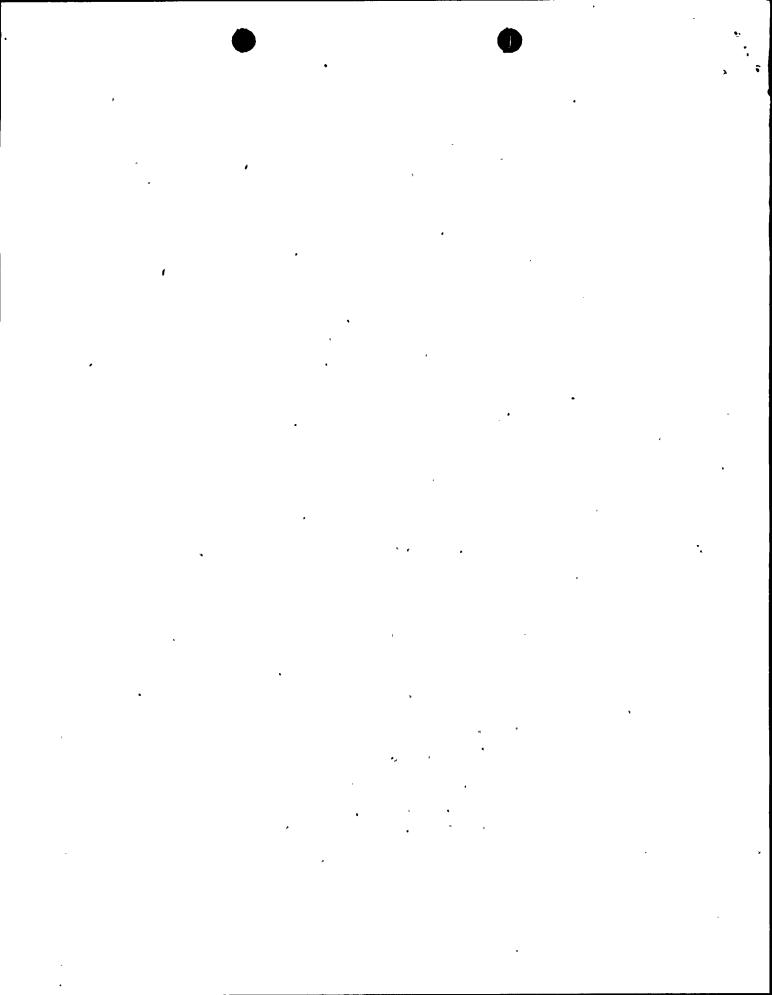
Attention: Mr. Donald C. Switzer
Vice President

## Docket No. 50-171

Philadelphia Electric Company 1000 Chestnut Street Philadelphia, Pennsylvania 19105

Attention: Mr. Vincent P. McDevitt

Vice President & General Counsel



## Docket No. 50-244

Rochester Gas & Electric Corporation 89 East Avenue Rochester, New York 14604

Attention: Mr. E. J. Nelson Vice President

## Docket No. 50-29

Yankee Atomic Electric Company 441 Stuart Street . Boston, Massachusetts 02116

Attention: Mr. L. E. Minnick Vice President

#### Docket No. 50-231

General Electric Company Advanced Products Operation 310 DeGuigne Drive Sunnyvale, California 94806

Attention: Mr. Karl P. Cohen General Manager

## Docket No. 50-16

Power Reactor Development Company 1911 First Street: Detroit, Michigan 48226

Attention: , Mr. Myron C. Beekman General Manager

## Docket No. 50-206

Southern California Edison Company P. O. Box 351
Los Angeles, California 90053

Attention: Mr. J. B. Moore Vice President

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DISTRIBUTION Pub. Doc. Room DRL Reading Facility File Branch Reading D. J. Skovholt, DRL

Mr. P. Allister Burt Station Superintendent Nine Mile Point Nuclear Plant Niagara Mohawk Corporation P. O. Box 32 Lycoming, New York 13093

Dear Mr. Burt:

We have received and reviewed the fifteen (15) applications for operator licenses and two (2) reapplications for senior operator licenses.

We find the applications to be in order with the following exceptions:

The operator license applications do not contain (1) the details of the training program and (2) the startup and shutdown experience pursuant to subparagraph 55.10(a)(6) of 10 CFR 55.

The reapplications for senior operator licenses do not contain the details of the additional training the applicants have received pursuant to paragraph 55.12(a) of 10 CVR 55.

This information is necessary for us to determine the eligibility of the applicants to be administered the examinations requested in their applications. Consequently, examinations cannot be administered prior to receipt of the above information.

Upon the receipt of this information we will continue to process the applications.

Sincerely yours,

ORIGINAL SIGNED BY P. F. COLLINS

Paul F. Collins, Chief Operator Licensing Branch Division of Reactor Licensing

cc: R. J. Campbell, DRL

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D. J. Skovholt, DRL
R. J. Campbell, OLB

Mr. P. Allister Burt Superintendent Nine Mile Point Nuclear Station P. O. Box 32 Lycoming, New York 13093

Dear Mr. Burt:

This is in regard to the forthcoming "cold" operator license examinations which will be administered at the Nine Mile Point Station.

We have begun the writing of the written examinations. However, as we advised you earlier, it is necessary that we have a complete set of approved operating, emergency, and special procedures for the Nine Mile Point Station before we can complete this task. At present, we have received the majority of the operating and emergency procedures, but none of the special procedures. It is imperative that we receive all of the approved procedures no later than June 2, 1969, in order to administer the written examinations and "cold" operating tests as presently scheduled.

The examining team will be led by AEC Headquarters Examiner Robert J. Campbell. All matters pertaining to scheduling dates and times for the examinations should be discussed with Mr. Campbell or myself.

Sincerely yours,

Frank L. Kelly, Chief Operator Licensing Branch Division of Reactor Licensing

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OPTIONAL FORM NO. 19 MAY 1962 EDITION GSA GEN. REG. NO. 27

UNITED STATES GOVERNMENT

# Memorandum

Röger S. Boyd, Assistant Director TO

for Reactor Projects, DRL

**FROM** 

(THRU) Robert L. Tedesco, Chief, RPB-2, DRL & V. Stello, RPB-2, DRL and V Stello R. L. Ferguson, E&CB, DRS Requirements

MINUTES OF STAFF-NIAGARA MOHAWK POWER CORPORATION SUBJECT:

(NINE MILE POINT) MEETING - DECEMBER 19, 1967.

DOCKET NO. 50-220

A meeting was held on December 19, 1967 with representatives of Niagara Mohawk Power Corporation (NMPC), GE and members of the staff. An agenda indicating specific topics to be discussed at the meeting was made available to NMPC two weeks prior to the meeting. A number of topics noted on the agenda were based on problems identified during the Oyster Creek review. We anticipated that the applicant would have been informed of these problems and therefore would have been prepared to discuss them in detail. A-summary of the discussion on each agenda item is presented herein. In addition, NMPC stated that fuel loading was scheduled for June 1, 1968. A list of attendees is attached:

25 Campbell Face File

DATE: January 3, 1968

## Conclusións

- The problem areas identified on the Oyster Creek design have not been corrected on the Nine Mile Point Plant.
- 2. NMPC did not provide sufficient information to assure the staff that the problems would be corrected.
- 3. There is a schedule conflict, since our scheduled date for license issuance is July 1, 1968, and NMPC's scheduled fuel loading date is June 1, 1968.
- 4. Our review should be expedited by:
  - (a) Presenting DRL positions on the problem areas to NMPC as soon as possible.\*
  - (b) Completing our review as rapidly as possible.\*\*

NMP; review plan is not yet approved. Reviewers for specific areas are avings Bonds Regularly on the Payroll Savings Plan



On December 20, 1967, R. Boyd met with key personnel of NMPC. It was agreed we would present NMPC with the DRL positions established for these problem areas. NMPC would consider these positions, comply with those they found acceptable and prepare arguments for those they found unacceptable. Copies of letters to OC stating these positions were given to NMPC for their information.

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## Summary of Discussions

### I. Engineered Safety Features

#### A. Core Spray

- 1. System Operations
  - the same as that with off-site power available. It appears to depend upon a single sequencer which starts the core spray pumps in a serial sequence. The redundant set of pumps will not be started until the pressure measurements show the first set is not effective (~34 seconds after the start of the sequence). On standby power, only one diesel generator will be loaded unless the preferred diesel does not start of the core spray pumps do not come up to pressure. The method by which the sequencer determines what is happening was not explained. The consequences of interlock failures or instrument failures due to pipe whip or missiles have not been analyzed.
  - b. The core spray nozzles have been changed from conical or shaped sprays to alternate conical and open nozzles.
  - c. A high drywell pressure signal has been added to initiate the core spray system.
- 2. Passive Failures A failure of some passive components (i.e. torus and suction lines for the core spray and containment spray pumps) would result in a total loss of water to these pumps. Pump' mctors would not be flooded because the maximum possible water level is below the motor elevation. Motors are capable of operating if submerged.
- 3. Containment Flooding Time did not permit discussion in detail.
- 4. Programming Automatic Relief System
  - a. The Reactor Vessel Water Level Trip point has not been lowered per our review of the similar system on Oyster Creek.
  - b. The applicant does not consider AC powered valve operators (or the equivalent) necessary to positively prevent the automatic relief when AC is not available. The applicant believes redundancy in the AC system justifies the assumption that AC power will always be available to the plant.

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5. The Environmental Design Conditions - The: conditions for electrical components were given as:

Component	Pressure	Temperature	Humidity
Pump motors		150°F	100%
Valve Operators		310°F	100%
Instrumentation &	62 psi	150 <sup>0</sup> F	100%

Valve Operators have Class H insulation and are presumed to operate continuously with the above design conditions. The applicant stated that adequate test data is available to confirm the performance of the components under these design conditions.

- 6. Small Breaks The plant response to small breaks in the primary coolant system will be as stated in the FSAR. The feedwater system will be modified so that it will be available during a LOCA if off-site power is available. The current arrangement, feedwater pump driven by the main steam turbine, precludes the availability of feedwater even if off-site power is available. Without off-site power, the plant will be blowndown and core spray will provide water.
- 7. Core Spray Test The core spray test program has been 'completed.
- 8. Preoperational and Operational Tests The Preoperational and Operational Testing of the core spray system will consist of an operational test from sensor to final actuators: It will be performed with both off-site and standby power.
- 9. The Quality Control Program -. The quality control program for all engineered safeguards is under NMPC, however, time did not permit discussion of this item in detail.

A list of systems for which an analysis of the systems' dynamic response to seismic disturbances has been made was not available. Apparently, all Class I systems were not analyzed.

- B. Containment Spray: Time did not permit the discussion of this item:
- II. Reactor Building and Turbine Building Cooling Water Systems-

The applicant stated that the Reactor Building Water Systems is not required for the operation of any engineered safety features. DRL stated we would review this system in more detail at a later date.

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## III. Reactor Coolant System (Primary and Emergency)

- System response to total loss of AC power: although these items were included on the agenda transmitted to the applicant, the applicant has not evaluated:
  - a. the system response for 0 or 10 gpm leakage.
  - b. the time the isolation condenser is effective if a malfunction of the emergency condensor level control valve permits the maximum uncontrolled flow through the emergency condenser.
  - c. the amount of leakage because of a failure in the return line from the emergency condenser that is permitted before the leak is detected by area temperature monitors.
  - d. the time for automatic blowdown as a function of leakage.

#### 2. Leak Detection Methods

- a. The normal leakage from the total system is thought to be less than 6000 lbs/hr. The fraction of this that is within the isolatable portion of the primary system is unknown and has not been estimated.
- b. The sensitivity of any of the leak detection systems was not known.
- c. The operator's response to leakage detection is unknown. At present it is left to the operator's discretion.

#### 3. Quality Control -

- a. Prime responsibility for quality control is with the component manufacturer. GE's resident inspector for the reactor vessel performed a 100% review of QC test data e.g. mill reports, radiographs, Ultrasonic tests, etc.
- b. Applicant could not explain the meaning of some of the "extracode" quality control items mentioned in the FSAR.

## 4. Pressure Vessel Surveillance Program

At present, plans are not firm for the analysis of samples received from this program. Applicant has not considered spreading out the sample points as the dose level approaches 1017 NVt.

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January 3, 1968

## 5. Preoperational Test Program

Control Rod Stub Tube Welds (similar to those that cracked in OC vessel) have been examined by dye penetrant and Ultrasonics. No cracks were detected. The flush and cleaning procedure, the chemicals to be used and the sequence (before or after the hydro test) are presently being reviewed.

### 6. Periodic Inspections

Program is not fully developed - the locations which will be available for periodic inspections, the methods used to perform periodic inspection and the method used to determine the significance of the results has not been established.

### 7. Pipe Whip and Missile Criteria

Applicant believes redundance of systems will protect the plant from a cacading failure due to pipe whip and missiles. Maximum possible physical separation has been used between redundant systems in the drywell. Systems have not been analyzed for possible damage to systems or instrumentation as a result of pipe whip.

## IV. Conduct of Operations

The Staff outlined what is expected as a description of emergency plans, operating procedures, review and audit groups and preoperational test procedures.

#### V. Instrumentation

This area was not covered in detail as the applicant did not bring persons who were familiar with the details of these systems although specific areas of concern were noted on the agenda. Several schematic drawings (requested prior to meeting) were left with Mr. Parr.

The discussions on the Core Spray and Primary System did indicate several potential problem areas that should be investigated. These are:

- 1. Sequencer for Core Spray System.
- 2. Load sequencer for Core Spray System.
- 3. Interlocks in Core Spray System for test operations.
- 4. Prevention of Auto Blowdown if AC power is not available.

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- 5. Sensitivity of Leak Detection Systems
- 6. Compliance with applicant's criterion that all safety system transducers have an analog readout. Preoperational testing of the safety system, engineered safety feature system and the protective relaying will include complete system operation from sensor to final actuator.

## IV. Electrical Power

The system was described as being the same as in the FSAR. Schematics were left with Mr. Parr.

## Distribution:

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RPB-2 Reading

Orig: V. Stello

R. L. Tedesco

Branch Chiefs, DRL

R. L. Ferguson

O. D. Parr

D.CC. Fischer

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## ATTENDEES - DECEMBER 19, 1967

R.	L.	Tedesco
R.	L.	Ferguson
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V. Stello O. D. Parr D. C. Fischer

R. T. Carlson

J. N. Ewart P. A. Burt

H. D. Philipp

G. K. Rhode

Z. E. Chilaze

M. H. Pratt

F. J. Schneider

H. R. Nimms

P. W. Ianni

R. B. Lemmon

A. E. Upton J. A. Lodge

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## Compliance

Niagara Mohawk Power Corp.

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Niagara Mohawk Power Corp.

Millstone Pt. Co.

General Electric

General Electric

LeBoeuf, Lamb & Leiby

LeBoeuf, Lamb & Leiby

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UNITED STATES GOVERNMENT 1èmorandum

FAC. File

DATE: March 30, 1967

TO

Harold L. Price

Director of Regulation

FROM

Peter A. Morris, Director Plimmis

Division of Reactor Licensing

SUBJECT:

TELEPHONE CALL FROM ED LEGAN. IBEW

I had a telephone call today from Ed Legan who is affiliated with the International Brotherhood of Electrical Workers. He told me that he had attended a meeting with representatives of Niagara Mohawk in Syracuse this week concerning the Nine Mile Point Nuclear Power Plant. He told me that Niagara Mohawk was planning to operate the plant with three men per shift with only one licensed operator in the control room. He expressed great concern about this proposal and was interested in knowing if there had been a change in Commission policy. He stated that the Union would request a public hearing at the time of licensing should this proposal still be in effect at that time. He plans to request that the AEC's Advisory Committee on Labor Management discuss this matter.

cc: H. Shapar, OGC

C. K. Beck, REG

M. M. Mann, REG

H. T. Herrick, LABR

R. S. Boyd, RL

D. J. Skovholt, RL

