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METROPOLITAN EDISON COMPANY SUBSIDIARY OF GENERAL PUBLIC UTILITIES CORPORATION

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603 TELEPHONE 215 – 929-3601

August 21, 1975
GQL 1410

Mr. A. Giambusso
Director, Division of Reactor Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Giambusso:

Docket No. 50-289
Operating License No. DPR-50
Technical Specification Change Request No. 18

Enclosed are three signed originals and thirty-seven conformed copies of Technical Specification Change Request No. 18, requesting amendment to Appendix B of Operating License No. DPR-50. As a part of this request, proposed replacement pages for Appendix B are also enclosed.

Also enclosed is one signed copy of a Certificate of Service of Technical Specification Change Request No. 18 to the chief executives of the township and county in which the facility is located.

Sincerely,

R. C. Arnold
Vice President

RCA:JFV:pa

Enclosures: i. Technical Specification Change Request No. 18 (Three (3) Originals/37 Copies)
ii. Certificate of Service for Proposed Technical Specification Change Request No. 18

File 7.7.4.3.3.1/20.1.1

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METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER & LIGHT COMPANY

AND

PENNSYLVANIA ELECTRIC COMPANY

THREE MILE ISLAND NUCLEAR STATION UNIT 1

Operating License No. DPR-50
Docket No. 50-289
Technical Specification Change Request No. 18

This Technical Specification Change Request is submitted in support of Licensee's request to change Appendix B to Operating License No. DPR-50 for Three Mile Island Nuclear Station Unit 1. As a part of this request, proposed replacement pages for Appendix B are also included.

METROPOLITAN EDISON COMPANY

By R C Arnold
Vice President-Generation

Sworn and subscribed to me this 21st day of August, 1975

Rita M. Powers
Notary Public

RITA M. POWERS
Notary Public, Muhlenberg Twp., Berks Co.
My Commission Expires September 30, 1978

1459 275

Three Mile Island Nuclear Station Unit 1 (TMI-1)
Operating License DPR-50
Docket No. 50-289

- TECHNICAL SPECIFICATION CHANGE REQUEST NO. 18.a. -

Licensee requests that certain changes, as hereinafter described, be made in Appendix B of the TMI-1 Technical Specifications. A copy of the affected pages with these changes indicated is attached.

Proposed Change

Page 13, Subsection 2.2.3, pH; add the following qualifying phrase to the Specification:

" . . . except that during those periods when the intake pH is greater than 9.0, the plant discharge pH shall not exceed the plant intake pH, and that during those periods when the intake pH is less than 6.0, the plant discharge pH shall not be lower than the intake pH."

Reason for Requesting Change

The subject change will eliminate the need to have to report certain conditions which the station was not responsible for having created. The fact that fewer reports will thus have to be written will result in a cost savings, which is the reason for requesting this change.

Environmental Analysis Justifying Change

The proposed change, if implemented, will not have any adverse effect on the environment, in that during periods of unusual river water conditions (i.e., pH less than 6.0 or greater than 9.0), the pH condition of the water which is returned to the river will be no worse, and may actually be better, than the pH condition of the river water itself.

Cost-Benefit Analysis Supporting Change

No additional cost will result from implementation of the proposed change, and by making this one Limiting Condition for Operation more flexible, implementation of the proposed change will result in fewer reportable incidents, which, in turn, will result in a decrease in the number of man-hours which will have to be spent in reporting such incidents.

- TECHNICAL SPECIFICATION CHANGE REQUEST NO. 18.b. -

Proposed Change

Page 14, Subsection 2.2.3., pH; change the pH range referenced in the Bases from "6.0 to 9.0" to "5.0 to 10.0."

Reason for Requesting Change

The reason for requesting the subject change is to make the Technical Specifications more closely reflect the actual pH conditions of the Susquehanna River. From recent sampling of the river in the vicinity of TMI-1, it appears that these conditions are more accurately represented by the range 5.0 to 10.0.

Environmental Analysis Justifying Change

Because the proposed change merely serves to correct some data in the basis for a Specification, it does not constitute a change to the Technical Specification and will not cause any adverse effects to the environment. (Note: The change Specification derived from this changed Basis is addressed in the above Change Request.)

Cost-Benefit Analysis Supporting Change

No additional costs will result directly from implementation of the proposed change. The benefits are as described in the above Change Request.

- TECHNICAL SPECIFICATION CHANGE REQUEST NO. 18.c. -

Proposed Change

Page 45, Section 4.2.1, Objective. Delete "dissolved oxygen" from the second sentence.

Reason for Requesting Change

The Specification of Section 4.2.1 does not require that dissolved oxygen in the river water discharge be monitored (this requirement was removed during the draft stage of the Technical Specifications); therefore, this change is being requested so that the Technical Specifications can be made more internally consistent.

Environmental Analysis Justifying Change

Because the proposed change merely serves to make the Technical Specifications more consistent and does not actually change any of the requirements of those specifications, it will not cause any adverse effects to the environment.

Cost-Benefit Analysis Supporting Change

No additional costs and no benefits will result from implementation of the proposed change in that all the requirements of the Technical Specifications will remain the same.

- TECHNICAL SPECIFICATION CHANGE REQUEST NO. 18.d. -

Proposed Change

Page 47, Section 4.2.1, Bases. Delete the third paragraph.

Reason for Requesting Change

The Specification of Section 4.2.1 does not require that dissolved oxygen in the river water discharge be monitored; therefore, there is no need to have dissolved oxygen referenced in the Bases of this section and removal of this reference would serve to make the Technical Specifications more internally consistent.

Environmental Analysis Justifying Change

The environmental Analysis is the same as for Change Request No. 18.d. above.

Cost-Benefit Analysis Supporting Change

The cost-benefit analysis is the same as for Change Request No. 18.d. above.

Bases

The postoperational aquatic chemical surveillance program of the Susquehanna River in the vicinity of the Three Mile Island Nuclear Station will begin upon the issuance of an operating license. This program is designed to provide quantitative information on chemical discharges from the plant. Chlorine discharge concentrations are monitored continually by installed plant instrumentation.

It is expected that there will be no significant difference in the concentration of heavy metals between the plant river water intake and discharge. Potential changes in concentrations of heavy metals due to passage of water through the plant could result from discharge of neutralized regenerant wastes, corrosion of river water piping or leakage of corrosion inhibitors. The metals selected for monitoring were selected based on metals known to be in the river, materials used in the construction of river water systems and the composition of the corrosion inhibitor used in the closed cooling systems. Since no significant increase in concentrations of heavy metals is expected, the measurement downstream is unlikely to be of value in defining the chemical plume.

The only significant addition of dissolved solids to plant effluent is the discharge of neutralized regenerant wastes from the cycle makeup demineralizers. In addition, dissolved solids are concentrated in cooling tower blowdown due to evaporation loss in the cooling towers. Since limits are placed on discharge of dissolved solids by Specification 2.3.2 and concentrations are monitored on a minimum weekly frequency during plant operation, the inclusion of this parameter with the postoperational surveillance program after a period of 1 - 3 years is considered unnecessary.

There is expected to be no significant addition of suspended solids to the plant discharge. A period of 1 - 3 years inclusion of this parameter within the postoperational surveillance program is considered sufficient to justify efficiency and reliability of plant

chemically analyzed for drift minerals.

This program will be continued for two years.

Bases

Since some potential exists for damage to area vegetation from cooling tower drift and since the actual effect is unknown, specific report levels, protection limits, or the need for such measures cannot be determined at this time. The study described herein will provide information needed to establish a protection limit or report level or to establish that the measurement of the drift effect is unnecessary due to insignificant impact.

Measurement of species composition, relative abundance, and relative dominance will determine changes in the natural vegetative community that may be due to plant operation. Increases or decreases in certain species should become evident if they do in fact occur. Examination of vegetation for physical disorders will indicate if salt damage is occurring with respect to actual injury or death of plants. This information will be supplemented by analyses to determine concentrations of certain minerals in the plant material.

4.2 Chemical

4.2.1 Aquatic

Objective

To define operational surveillance or special studies of aquatic chemical effects derived from the station. The chemical parameters of this study will include chlorine, heavy metals, suspended solids and dissolved solids. Alkalinity is related to the pH of the water and may be included if deemed necessary in checking pH monitoring at the river water discharge.

Specification

The aquatic chemical surveillance program shall be conducted as follows:

2.0 LIMITING CONDITIONS FOR OPERATION

2.2.3 pH

Objective

The purpose of this specification is to limit the pH of plant discharges to values which will produce no harmful effects to the Susquehanna River.

Specification

The pH, as measured at the plant discharge and at the waste neutralizing tank prior to release, shall have a value of not less than 6.0, nor more than 9.0, except that during those periods when the intake pH is greater than 9.0, the plant discharge pH shall not exceed the intake pH, and that during those periods when the intake pH is less than 6.0, the plant discharge pH shall not be less than the intake pH.

Bases

The pH of the Susquehanna River as measured in the vicinity of Three Mile Island is variable and values spanning almost the entire range

Monitoring Requirement

Objective

The purpose of this specification is to ensure compliance with Specification 2.2.3.

Specification

A determination of the pH of the contents of each tank of neutralized regenerant wastes will be made prior to release using installed instrumentation. All necessary adjustments to meet the specification will be made prior to initiation of the release. If the installed instrumentation is out of service, the necessary analyses will be performed prior to initiating the discharge using laboratory instrumentation. An analysis for pH will be performed on a sample taken from the plant river water discharge during the release of each tank of regenerant wastes, or at weekly intervals as a minimum frequency.

Bases

Discharge of neutralized regenerant wastes is the only normal plant operation which could cause a change in the pH of the discharge since all sumps

2.0 LIMITING CONDITIONS FOR OPERATION

Bases (Cont'd)

from 5.0 to 10.0 have been recorded. Limiting the pH of discharge to the normal range of values insures that no pH related damage to river ecosystems or biota will result.

The limits on the pH of the waste neutralizing tank discharge will preclude sizable changes in the pH of the discharge to the river. For example, adding 300 gpm of pH 9.0 neutralizing tank discharge to a pH 8.0 stream at 17,250 gpm would raise its pH a calculated 0.06 unit, assuming no buffering action.

Bases (Cont'd)

and drains which are potential receivers of chemicals are collected in this tank.

2.3 RADIOACTIVE DISCHARGES

2.3.1 Liquid Effluents

Applicability

Applies to the controlled release of radioactive liquids from TMI Unit 1.

Objective

To define the limits and conditions for the controlled release of radioactive effluents to the environs to ensure that these releases

Monitoring Requirements

Objective

To ensure that radioactive liquid releases from the facility are within the limits of Specifications 2.3.1 a through e.

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF

DOCKET NO. 50-289
OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY

This is to certify that a copy of Technical Specification Change Request No. 18 to Appendix B of the Operating License for Three Mile Island Nuclear Station, Unit 1, dated August 21, 1975, and filed with the U.S. Nuclear Regulatory Commission August 21, 1975, has this 21st day August, 1975, been served on the chief executives of Londonderry Township, Dauphin County, Pennsylvania, and of Dauphin County, Pennsylvania, by deposit in the United States Mail, addressed as follows:

Mr. Weldon B. Arehart, Chairman
Board of Supervisors of
Londonderry Township
R.D. #1, Geyers Church Road
Middletown, Pennsylvania 17057

Mr. Charles P. Hoy, Chairman
Board of County Commissioners of
Dauphin County
Dauphin County Courthouse
Harrisburg, Pennsylvania 17120

METROPOLITAN EDISON COMPANY

By R.C. Arnold
Vice President-Generation

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