

REGULATORY DOCKET FILE COPY

Docket File  
50-336



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

June 3, 1980

Dockets Nos. 50-245  
and 50-336

Mr. W. G. Council  
Vice President, Nuclear Engineering  
and Operations  
Northeast Nuclear Energy Company  
P. O. Box 270  
Hartford, Connecticut 06101

Dear Mr. Council:

The Commission has issued the enclosed Amendment No. 68 to Provisional Operating License No. DPR-21 and Amendment No. 59 to Facility Operating License No. DPR-65 for the Millstone Nuclear Power Station, Units Nos. 1 and 2. The amendments consist of changes to the Appendix B (Environmental) Technical Specifications in response to your proposed revision dated March 20, 1978.

The amendments revise the common Environmental Technical Specifications (ETS) to delete Section 4.1, "Mathematical Tidal Circulation Model", and Section 4.2, "Mathematical Biological Model". Section 4.1 directed the licensees to develop a hydro-dynamic tidal circulation model of the Millstone site after collecting the necessary field data. The subsequent URI-NUSCO Report, (Ref. 1 on the enclosed list), described the resultant hydro-dynamic model. Data collected near the Millstone Nuclear Power Station were used to verify the model. Our review has determined that the required confirmatory research has been completed and that the hydro-dynamic model can provide valid representations of the flow fields around the site for use with biological models.

Section 4.2 directed the licensees to develop a predictive model for long-term assessment of the effects of station operation to the winter flounder population in the Millstone plant area. Reference 1 described the model which incorporates hydro-dynamic and biological parameters. The model may be used to predict the operating effects of present (two units) and future units. The model was used to examine the potential entrainment impact of three-unit operation on winter flounder in the Millstone area. It predicted a potential impact of a six percent reduction in total flounder population level after 35 years of operation if compensatory mechanisms are included. If all compensation is ignored in the model, a nine percent reduction is indicated. The model also simulated the population response at the end of plant life, with the results that the flounder population responded to the lessening mortality rate and returned toward its original level. The report also concluded that the model results probably overestimate the effect of entrainment. Results of this modeling effort have been reported in the published results of a symposium (Ref. 2).

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The University of Rhode Island (URI) Model of Millstone entrainment impacts has been comparatively reviewed (along with other similar models) for the Commission by staff of the University of Washington Center for Quantitative Science in the College of Fisheries (Ref. 3). In that review the authors strongly qualified the usefulness of models as predictors of power plant impact, but stated that the URI model was sensitive to biological input needs for model predictions. Further, it was stated that the URI model should over-estimate the effect of plant operation on the mature winter flounder population.

Battelle Pacific Northwest Laboratories reviewed the interim report (Ref. 4), of the URI-NUSCO model and found that the biological assumptions made in the model were logical and that the projected effects of larval entrainment on adult winter populations were likely to be conservative (Ref. 5).

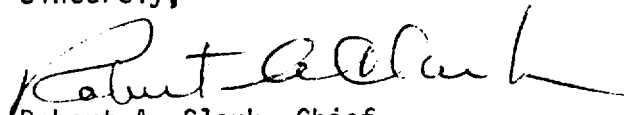
It is worthy to note that aspects of the URI model were used in development of an entrainment model for the New England Power (NEP) site at Charlestown, Rhode Island (Ref. 6). The model was cited in the NEP Draft Environmental Statement (Ref. 7), and in other recent works on entrainment impact (Ref. 8).

The Commission concludes that the modeling effort has satisfied the intent of ETSs Sections 4.1 and 4.2; therefore the aforementioned sections may be deleted. Issuance of these amendments will not result in any significant environmental impact and, pursuant to 10 CFR §51.5(d)(4), an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared.

We have concluded, based on the considerations above, that the amendments do not involve a significant increase in the probability or consequences of accidents previously considered, do not involve a significant decrease in a safety margin, and therefore do not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by these actions.

A copy of the related Notice of Issuance is also enclosed.

Sincerely,



Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Enclosures:

1. References
2. Amendment No. 68 to DPR-21
3. Amendment No. 59 to DPR-65
4. Notice of Issuance

cc w/enclosures:  
See next page

Northeast Nuclear Energy Company

cc w/enclosure(s):

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cc w/enclosure(s) and incoming  
dtd.: 3/20/78

Connecticut Energy Agency  
ATTN: Assistant Director, Research  
and Policy Development  
Department of Planning and Energy  
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20 Grand Street  
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## REFERENCES

Enclosure 1

1. Saila, S. B. August 1976. Effects of Power Plant Entrainment on Winter Flounder Populations Near Millstone Point. Final Report. URI-NUSCO Report No. 5. University of Rhode Island, Kingston. 139 p. plus appendices.
2. Hess, K. W., M. P. Sissenwine, and S. B. Saila. 1975. Simulating the Impact of the Entrainment of Winter Flounder Larvae. p. 1-29. In: S. B. Saila (ed). Fisheries and Energy Production: A Symposium. Lexington Books, D. C. Heath and Company, Lexington, Mass. 300 p.
3. Swartzman, G. L., R. B. Deriso, and C. Cowan. October 1978. Comparison of Simulation Models Used in Assessing the Effects of Power-Plant-Induced Mortality on Fish Populations. NUREG/CR-0474. Prepared for U.S. Nuclear Regulatory Commission by University of Washington, Seattle. 155 p.
4. Sissenwine, M. P., K. W. Hess, and S. B. Saila. 1975. Interim Report on Evaluating the Effect of Power Plant Entrainment on Populations Near Millstone Point, Connecticut. MES-NUSCO Report No. 3. University of Rhode Island, Kingston.
5. Gore, K. L., J. M. Thomas, L. D. Kannberg, and D. G. Watson. February 1977. Evaluation of Millstone Nuclear Power Plant, Environmental Impact Prediction, Based on Monitoring Programs. BNWL-2151. NRC-1. Battelle Pacific Northwest Laboratories, Richland, Washington.
6. U.S. Nuclear Regulatory Commission. May 1979. Draft Environmental Statement Related to Construction of New England Power Units 1 and 2 (NEP 1 & 2). Docket Nos. 50-568 and 50-569. Office of Nuclear Reactor Regulation, Wash., D. C.
7. Christensen, S. W., D. L. DeAngelis, and A. G. Clark. 1977. Development of a Stock-Progeny Model for Assessing Power Plant Effects on Fish Populations. p. 196-226. In: W. VanWinkle (ed). Proceedings of the Conference on Assessing the Effects of Power-Plant-Induced Mortality on Fish Populations. Pergamon Press Inc., New York. 380 p.
8. Boreman, J., C. P. Goodyear, and S. W. Christensen. November 1978. An Empirical Transport Model for Evaluating Entrainment of Aquatic Organisms by Power Plants. FWS/OBS-78/90. Fish and Wildlife Service, U.S. Department of the Interior. 67 p.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

THE CONNECTICUT LIGHT AND POWER COMPANY  
THE HARTFORD ELECTRIC LIGHT COMPANY  
WESTERN MASSACHUSETTS ELECTRIC COMPANY  
NORTHEAST NUCLEAR ENERGY COMPANY

DOCKET NO. 50-245

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 68  
License No. DPR-21

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Connecticut Light and Power Company, The Hartford Electric Light Company, Western Massachusetts Electric Company, and Northeast Nuclear Energy Company (the licensees) dated March 20, 1978, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.


2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Provisional Operating License No. DPR-21 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 68, are hereby incorporated in the license. Northeast Nuclear Energy Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Dennis C. Crutchfield, Chief  
Operating Reactors Branch #5  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: June 3, 1980



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

THE CONNECTICUT LIGHT AND POWER COMPANY,  
THE HARTFORD ELECTRIC LIGHT COMPANY,  
WESTERN MASSACHUSETTS ELECTRIC COMPANY, AND  
NORTHEAST NUCLEAR ENERGY COMPANY

DOCKET NO. 50-336

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 59  
License No. DPR-65

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Connecticut Light and Power Company, The Hartford Electric Light Company, Western Massachusetts Electric Company, and Northeast Nuclear Energy Company (the licensees) dated March 20, 1978, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-65 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 59, are hereby incorporated in the license. The licensees shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: June 3, 1980



ATTACHMENT TO LICENSE AMENDMENT NO. 68 TO  
PROVISIONAL OPERATING LICENSE NO. DPR-21 AND  
AMENDMENT NO. 59 TO FACILITY OPERATING LICENSE NO. DPR-65  
DOCKETS NOS. 50-245 AND 50-336

Replace the following pages of the Appendix "B" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE

4.1-1 & 4.1-2

4.2-1

INSERT

4.1-1

4.2-1

4.0 SPECIAL SURVEILLANCE, RESEARCH, OR STUDY ACTIVITIES

4.1 Mathematical Tidal Circulation Model

DELETED

4.1-1

Unit 1: Amendment No. 68  
Unit 2: Amendment No. 59

4.2 Mathematical Biological Model

DELETED

4.2-1

Unit 1: Amendment No. 68  
Unit 2: Amendment No. 59

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKETS NOS. 50-245 AND 50-336NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.NOTICE OF ISSUANCE OF AMENDMENTS TO  
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 68 to Provisional Operating License No. DPR-21 and Amendment No. 59 to Facility Operating License No. DPR-65 to Northeast Nuclear Energy Company, The Connecticut Light and Power Company, The Hartford Electric Light Company, and Western Massachusetts Electric Company (the licensees), which revised the Appendix B Technical Specifications for operation of the Millstone Nuclear Power Station, Units Nos. 1 and 2, located in the Town of Waterford, Connecticut. The amendments are effective as of their date of issuance.

These amendments delete Environmental Technical Specifications Section 4.1, "Mathematical Tidal Circulation Model", and Section 4.2, "Mathematical Biological Model". These sections are no longer applicable to operation since the required confirmatory research has been completed and the resultant models approved.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.


The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4)

an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated March 20, 1978, (2) Amendments Nos. 68 and 59 to Licenses Nos. DPR-21 and DPR-65, respectively, and (3) the Commission's letter dated June 3, 1980. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Waterford Public Library, Rope Ferry Road, Route 156, Waterford, Connecticut. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 3rd day of June 1980.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing