

Bcc: H. J. McAlduff, ORO
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 J. A. Harris, IS
 J. R. Buchanan, ORNL
 T. W. Laughlin, DTIE
 A. Rosenthal, ASLAB
 N. H. Goodrich, ASLBp
 F. W. Karas, SECY
 St. George T. Arnold, ORNL

Distribution
 BEC PDR
 Local PDR
 Docket (2)
~~L-R/F~~
 RP R/F
 PWR 1 R/ F
 OGC
 RSBoyd
 RCDeYoung
 RO (3)
 NDube (w/3 encl)
 MJinks (w/2 encl)
 DSkovholt
 P Collins
 PWR Br Chiefs (4)
 Chebron, F&M
 DNussbaumer, F&M
 JSaltzman, A&I
 JLee (2)

Docket Nos. 50-369
 and 50-370 ✓

FEB 28 1973

Duke Power Company
 ATTN: Mr. W. H. Owen
 Vice President, Engineering
 P. O. Box 2178
 422 South Church Street
 Charlotte, North Carolina 28201

Gentlemen:

Construction Permits Nos. CPPR-83 and CPPR-84 are enclosed, together with a copy of a related notice which has been forwarded to the Office of the Federal Register for publication.

The construction permits authorize Duke Power Company to construct two pressurized water nuclear reactors, designated as the McGuire Nuclear Station, Units 1 and 2, at Duke Power Company's site on the shore of Lake Norman, in Mecklenburg County, North Carolina.

Sincerely,

Original signed by R. C. DeYoung

R. C. DeYoung, Assistant Director
 for Pressurized Water Reactors
 Directorate of Licensing

Enclosures:

1. Construction Permits Nos.
 CPPR-83 and CPPR-84
2. Federal Register Notice

cc: See next page

CRES#03 MC#840502 12/13/72	OFFICE ▶ L:PWR-1 JLee	L:PWR-1 Chale	L:PWR-1 DBVassallo	L:AD/PWR RCDeYoung		
SURNAME ▶	JLee	Chale	DBVassallo	RCDeYoung		
DATE ▶	2/23/73	2/26/73	2/26/73	2/27/73		

FEB 23 1973

cc w/encls:

Mr. William L. Porter
Duke Power Company
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Charlotte, North Carolina 28201

Mr. Troy B. Conner, Jr.
Reid & Priest
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Washington, D. C. 20006

Dr. W. C. Bell
State Planning Task Force
P. O. Box 1351
Raleigh, North Carolina 27602

Honorable Glenn C. Blaisdell
County Manager
Mecklenburg County, North Carolina 28201

Mr. Craig Roberts (2 copies)
Environmental Protection Agency
Room 18-81, Parklawn Building
5600 Fishers Lane
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Mr. Frank Redmond - Region IV
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OFFICE ▶						
SURNAME ▶						
DATE ▶						



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

DUKE POWER COMPANY

MCGUIRE NUCLEAR STATION, UNIT 1

DOCKET NO. 50-369

CONSTRUCTION PERMIT

Construction Permit No. CPPR-83

1. Pursuant to section 103 of the Atomic Energy Act of 1954, as amended (the Act), and Title 10, Chapter 1, Code of Federal Regulations, Part 50, "Licensing of Production and Utilization Facilities," and pursuant to the Initial Decision of the Atomic Safety and Licensing Board, the Atomic Energy Commission (the Commission) hereby issues a construction permit to the Duke Power Company (the applicant) for a utilization facility (the facility), designed to operate at 3411 megawatts (thermal) as described in the application and amendments thereto (the application), including the environmental report and supplements and amendments thereto (environmental report), filed in this matter by the applicant and as more fully described in the evidence received at the public hearing upon that application. The facility, known as the McGuire Nuclear Station, Unit No. 1, will be located on the shore of Lake Norman, approximately 17 miles north-northeast of Charlotte, North Carolina, and is immediately west of Duke Power Company's Cowans Ford Hydroelectric Station.
2. This permit shall be deemed to contain and be subject to the conditions specified in sections 50.54 and 50.55 of said regulations; is subject to all applicable provisions of the Act, and rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the conditions specified or incorporated below:
 - a. The earliest date for the completion of the facility is May 1, 1975, and the latest date for completion is February 1, 1976.
 - b. The facility shall be constructed and located at the site as described in the application, in Mecklenburg County, North Carolina.

- c. This construction permit authorizes the applicant to construct the facility described in the application, including the environmental report, and in the hearing record in accordance with the principal architectural and engineering criteria and environmental protection commitments set forth therein.
- d. Pursuant to §105c(8) of the Act, the Commission has consulted with the Attorney General regarding the issuance of this construction permit. After said consultation, the Commission has determined that the issuance of this permit, subject to the conditions set forth in this subparagraph d., in advance of consideration of and findings with respect to matters covered in §105c. of the Act, is necessary in the public interest to avoid unnecessary delay in construction of the plant. At the time this construction permit is being issued, an antitrust proceeding is in progress. The Commission, accordingly, has made no determination with respect to matters covered in §105c. of the Act including conditions, if any, which may be appropriate as a result of the outcome of the antitrust proceeding. On the basis of its findings made as a result of such antitrust proceeding, the Commission may continue this permit as issued, rescind this permit or amend this permit to include such conditions as the Commission deems appropriate. This construction permit shall be subject to the outcome of an antitrust proceeding now in progress for the purpose of determining "whether the activities under the permit(s) in question would create or maintain a situation inconsistent with the antitrust laws." The applicant, intervenors in the current antitrust proceeding, and others who may be affected hereby are on notice that the granting of this permit is without prejudice to any subsequent licensing action, including the imposition of appropriate conditions,*

* In the consultation with the Department of Justice, the Department has informed the Commission that in the course of the antitrust proceeding now in progress conditions may be sought to be attached to the permit which would require the applicant among other things, to:

- (1) grant participation in the McGuire units to other electric utilities;
- (2) provide transmission service to other electric utilities;
- (3) interconnect and engage in the interchange and sale of electric bulk power supply to other electric utilities or persons proposing to engage in electric utility operations;
- (4) engage in coordinated planning and operation of bulk power supply facilities with other electric utilities in connection with the foregoing; and
- (5) remove anticompetitive contractual restrictions from its bulk power supply contracting arrangements.

which may be taken by the Commission as a result of the outcome of this antitrust proceeding. In the course of its planning and other activities, the applicant will be expected to conduct itself accordingly.

- e. The final design of the emergency core cooling system (ECCS) for this facility must comply with the applicable ECCS criteria adopted by the Commission as a result of the rulemaking proceeding, In the Matter of Acceptance Criteria for Emergency Core Cooling Systems for Light Water Cooled Nuclear Power Reactors (Docket No. RM 50-1).
- f. The applicant shall resubmit the design for gaseous radwaste system for staff review and determination as to whether it will meet the requirements of Appendix I of 10 CFR Part 50, as adopted by the Commission as a result of the rulemaking proceeding, In the Matter of Effluents from Light Water Cooled Power Reactors (Docket No. RM 50-2).
- g. This construction permit is subject to all commitments made by the applicant in the environmental report and to the following conditions for the protection of the environment identified in the Final Environmental Statement, page iv, paragraph 8.
 - (1) The applicant shall conduct studies to determine the effect of the projected 32°F ΔT across the condenser during the winter months and its relationship to (a) gas bubble disease and (b) the impact on aquatic organisms which may be in the area of the thermal plume during shutdown of the plant. The results of this study shall be provided to the AEC for review along with a description of any design changes necessary to reduce environmental impact.
 - (2) The applicant shall complete the biological sampling programs to characterize the biota and to provide ecological baseline data needed to adequately measure the impact of the proposed construction and operation of the station. The results of these programs shall be provided to the AEC.
 - (3) Physical and analytical model studies that deal with the thermal regime of Lake Norman, now under way and planned, shall be completed. A report giving results of these studies shall be provided to the AEC. The applicant should demonstrate that the physical model results are applicable to the areas of concern at McGuire Nuclear Station and clearly establish the degree of conservatism of the physical model.

- (4) With respect to condenser water discharge temperature to Lake Norman, the facility shall be designed and constructed so as to comply with the water quality standards of the North Carolina Board of Water and Air Resources and the applicable requirements of the Federal Water Pollution Control Act, as amended in 1972.
3. This permit is subject to the limitation that a license authorizing operation of the facility will not be issued by the Commission unless (a) the applicant submits to the Commission, by amendment to the application, the complete final safety analysis report, portions of which may be submitted and evaluated from time to time; (b) the Commission finds that the final design provides reasonable assurance that the health and safety of the public will not be endangered by the operation of the facility in accordance with procedures approved by it in connection with the issuance of said license; (c) the applicant submits to the Commission an environmental report for the operating license stage; and (d) the applicant submits proof of financial protection and the execution of an indemnity agreement as required by section 170 of the Act.

Dated at Bethesda, Maryland this 28th day of February, 1973.

FOR THE ATOMIC ENERGY COMMISSION

A. Giambusso

A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing



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

DUKE POWER COMPANY

MCGUIRE NUCLEAR STATION, UNIT 2

DOCKET NO. 50-370

CONSTRUCTION PERMIT

Construction Permit No. CPPR-84

1. Pursuant to section 103 of the Atomic Energy Act of 1954, as amended (the Act), and Title 10, Chapter 1, Code of Federal Regulations, Part 50, "Licensing of Production and Utilization Facilities," and pursuant to the Initial Decision of the Atomic Safety and Licensing Board, the Atomic Energy Commission (the Commission) hereby issues a construction permit to the Duke Power Company (the applicant) for a utilization facility (the facility), designed to operate at 3411 megawatts (thermal) as described in the application and amendments thereto (the application), including the environmental report and supplements and amendments thereto (environmental report), filed in this matter by the applicant and as more fully described in the evidence received at the public hearing upon that application. The facility, known as the McGuire Nuclear Station, Unit No. 2, will be located on the shore of Lake Norman, approximately 17 miles north-northeast of Charlotte, North Carolina, and is immediately west of Duke Power Company's Cowans Ford Hydroelectric Station.
2. This permit shall be deemed to contain and be subject to the conditions specified in sections 50.54 and 50.55 of said regulations; is subject to all applicable provisions of the Act, and rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the conditions specified or incorporated below:
 - a. The earliest date for the completion of the facility is May 1, 1976, and the latest date for completion is March 1, 1977.
 - b. The facility shall be constructed and located at the site as described in the application, in Mecklenburg County, North Carolina.

- c. This construction permit authorizes the applicant to construct the facility described in the application, including the environmental report, and in the hearing record in accordance with the principal architectural and engineering criteria and environmental protection commitments set forth therein.
- d. Pursuant to §105c(8) of the Act, the Commission has consulted with the Attorney General regarding the issuance of this construction permit. After said consultation, the Commission has determined that the issuance of this permit, subject to the conditions set forth in this subparagraph d., in advance of consideration of and findings with respect to matters covered in §105c. of the Act, is necessary in the public interest to avoid unnecessary delay in construction of the plant. At the time this construction permit is being issued, an antitrust proceeding is in progress. The Commission, accordingly, has made no determination with respect to matters covered in §105c. of the Act including conditions, if any, which may be appropriate as a result of the outcome of the antitrust proceeding. On the basis of its findings made as a result of such antitrust proceeding, the Commission may continue this permit as issued, rescind this permit or amend this permit to include such conditions as the Commission deems appropriate. This construction permit shall be subject to the outcome of an antitrust proceeding now in progress for the purpose of determining "whether the activities under the permit(s) in question would create or maintain a situation inconsistent with the antitrust laws." The applicant, intervenors in the current antitrust proceeding, and others who may be affected hereby are on notice that the granting of this permit is without prejudice to any subsequent licensing action, including the imposition of appropriate conditions,*

* In the consultation with the Department of Justice, the Department has informed the Commission that in the course of the antitrust proceeding now in progress conditions may be sought to be attached to the permit which would require the applicant among other things, to:

- (1) grant participation in the McGuire units to other electric utilities;
- (2) provide transmission service to other electric utilities;
- (3) interconnect and engage in the interchange and sale of electric bulk power supply to other electric utilities or persons proposing to engage in electric utility operations;
- (4) engage in coordinated planning and operation of bulk power supply facilities with other electric utilities in connection with the foregoing; and
- (5) remove anticompetitive contractual restrictions from its bulk power supply contracting arrangements.

which may be taken by the Commission as a result of the outcome of this antitrust proceeding. In the course of its planning and other activities, the applicant will be expected to conduct itself accordingly.

- e. The final design of the emergency core cooling system (ECCS) for this facility must comply with the applicable ECCS criteria adopted by the Commission as a result of the rulemaking proceeding, In the Matter of Acceptance Criteria for Emergency Core Cooling Systems for Light Water Cooled Nuclear Power Reactors (Docket No. RM 50-1).
- f. The applicant shall resubmit the design for gaseous radwaste system for staff review and determination as to whether it will meet the requirements of Appendix I of 10 CFR Part 50, as adopted by the Commission as a result of the rulemaking proceeding, In the Matter of Effluents from Light Water Cooled Power Reactors (Docket No. RM 50-2).
- g. This construction permit is subject to all commitments made by the applicant in the environmental report and to the following conditions for the protection of the environment identified in the Final Environmental Statement, page iv, paragraph 8.
 - (1) The applicant shall conduct studies to determine the effect of the projected 32°F ΔT across the condenser during the winter months and its relationship to (a) gas bubble disease and (b) the impact on aquatic organisms which may be in the area of the thermal plume during shutdown of the plant. The results of this study shall be provided to the AEC for review along with a description of any design changes necessary to reduce environmental impact.
 - (2) The applicant shall complete the biological sampling programs to characterize the biota and to provide ecological baseline data needed to adequately measure the impact of the proposed construction and operation of the station. The results of these programs shall be provided to the AEC.
 - (3) Physical and analytical model studies that deal with the thermal regime of Lake Norman, now under way and planned, shall be completed. A report giving results of these studies shall be provided to the AEC. The applicant should demonstrate that the physical model results are applicable to the areas of concern at McGuire Nuclear Station and clearly establish the degree of conservatism of the physical model.

- (4) With respect to condenser water discharge temperature to Lake Norman, the facility shall be designed and constructed so as to comply with the water quality standards of the North Carolina Board of Water and Air Resources and the applicable requirements of the Federal Water Pollution Control Act, as amended in 1972.
3. This permit is subject to the limitation that a license authorizing operation of the facility will not be issued by the Commission unless (a) the applicant submits to the Commission, by amendment to the application, the complete final safety analysis report, portions of which may be submitted and evaluated from time to time; (b) the Commission finds that the final design provides reasonable assurance that the health and safety of the public will not be endangered by the operation of the facility in accordance with procedures approved by it in connection with the issuance of said license; (c) the applicant submits to the Commission an environmental report for the operating license stage; and (d) the applicant submits proof of financial protection and the execution of an indemnity agreement as required by section 170 of the Act.

Dated at Bethesda, Maryland this 28th day of February, 1973.

FOR THE ATOMIC ENERGY COMMISSION

A Giambusso

A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NOS. 50-369 AND 50-370

DUKE POWER COMPANY

NOTICE OF ISSUANCE OF CONSTRUCTION PERMITS

Notice is hereby given that, pursuant to the Initial Decision of the Atomic Safety and Licensing Board, the Deputy Director for Reactor Projects, Directorate of Licensing, has issued Construction Permits Nos. CPPR-83 and CPPR-84 to Duke Power Company for construction of two pressurized water nuclear reactors at the applicant's site on the shore of Lake Norman, in Mecklenburg County, North Carolina. The reactors, known as the McGuire Nuclear Station, Units 1 and 2, are designed for initial operation at 3411 megawatts (thermal).

Copies of the Initial Decision and the Construction Permits are on file in the Commission's Public Document Room, 1717 H Street, N. W. Washington, D. C. 20545, and in the Public Library of Charlotte, Mecklenburg County, 310 North Tryon Street, Charlotte, North Carolina 28208.

FOR THE ATOMIC ENERGY COMMISSION



D. B. Vassallo, Chief
Pressurized Water Reactors Branch #1
Directorate of Licensing

Dated at Bethesda, Maryland
this 28th day of February, 1973.