

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

TENNESSEE VALLEY AUTHORITY  
DOCKET NO. 50-439  
BELLEFONTE NUCLEAR PLANT, UNIT 2  
CONSTRUCTION PERMIT

Construction Permit No. CPPR-123

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for construction permit complies with the requirements of the Atomic Energy Act of 1954, as amended, and the rules and regulations of the Commission, there is reasonable assurance that the activities authorized by the permit will be conducted in compliance with the rules and regulations of the Commission, and all required notifications to other agencies or bodies have been duly made:
  - B. The Tennessee Valley Authority (the applicant) has described the proposed design of the Bellefonte Nuclear Plant, Unit 2 (the facility), including, but not limited to, the principal architectural and engineering criteria for the design and has identified the major features or components incorporated therein for the protection of the health and safety of the public;
  - C. Such further technical or design information as may be required to complete the safety analysis, and which can reasonably be left for later consideration, will be supplied in the final safety analysis report;
  - D. Safety features or components, if any, which require research and development have been described by the applicant and the applicant has identified, and there will be conducted, a research and development program reasonably designed to resolve any safety questions associated with such features or components;
  - E. On the basis of the foregoing, there is reasonable assurance that (i) such safety questions will be satisfactorily resolved at or before the latest date stated in the application for completion of construction of the proposed facility and (ii) taking into consideration the site criteria contained in 10 CFR Part 100, the proposed facility can be constructed and operated at the proposed location without undue risk to the health and safety of the public;

- F. The applicant is technically qualified to design and construct the proposed facility;
  - G. The applicant is financially qualified to design and construct the proposed facility;
  - H. The issuance of a permit for the construction of the facility will not be inimical to the common defense and security or to the health and safety of the public; and
  - I. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of a construction permit subject to the conditions for protection of the environment set forth herein is in accordance with 10 CFR Part 50, Appendix D of the Commission's regulations and all applicable requirements have been satisfied.
2. Pursuant to Section 103 of the Atomic Energy Act of 1954, as amended (the Act), and Title 10, Chapter I, 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, dated December 23, 1974, the Atomic Energy Commission (the Commission) hereby issues a construction permit to the applicant for a utilization facility designed to operate at 3600 megawatts thermal as described in the application and amendments thereto (the application) filed in this matter by the applicant and as more fully described in the evidence received at the public hearing upon the application. The facility, known as the Bellefonte Nuclear Plant, Unit 2 will be located on the applicant's site in Jackson County, Alabama.
3. 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 March 1, 1980 and the latest date for completion is October 1, 2014.
  - B. The facility shall be constructed and located at the site as described in the application, in Jackson County, Alabama.
  - C. This construction permit authorizes the applicant to construct the facility described in the application and the hearing record, in accordance with the principal architectural and

engineering criteria and environmental protection commitments set forth therein.

D. This facility is subject to the following conditions for the protection of the environment:

- (1) An approved sampling program, as outlined in Section 5.4.2.5 and 6.2.1.1 of the AEC staff's Final Environmental Statement (SFES) will be implemented to obtain data necessary for assessment of the significance of the loss of ichthyoplankton through entrainment in the proposed intake.
- (2) The data obtained in the program specified in (1) above shall be submitted to the staff for review on a continuing basis and shall form the basis for a final decision on the acceptability of the proposed intake. The results will be subjected to thorough evaluation and a decision on the intake acceptability will be made on the basis of a cost-benefit analysis which will include both projected losses of fisheries resources on the entire reservoir and real and projected costs for the plant.
- (3) The applicant shall not use the broadcast application of herbicides on the right-of-way covered under Step One (Section 3.3, SFES) of the transmission line construction plan. (Section 5.4.1 and Appendix B, SFES).

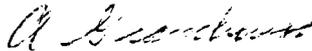
The applicant shall conduct studies which will assess the impacts of various alternative methods of transmission line construction and maintenance, and prior to any construction of Steps Two and Three (Section 3.3 SFES), the applicant shall submit (1) for staff evaluation the results of these studies and (2) an updated version of its proposed clearing and maintenance methods for staff approval. This submittal should include analysis of cost experience factors as well as environmental impacts such as the effects on vegetation, wildlife and soil stability. (Sections 4.1.2 and 9.2.4 SFES)

- (4) Prior to initiating construction of the discharge facility, the applicant shall provide the results of thermal-hydraulic analytical studies and plans for physical modelling experiments to be conducted in support of the final design and location of the plant cooling water discharge. (Sections 5.4.2.3.1 and 9.2.5 SFES)

- (5) The applicant shall take the necessary mitigating actions, including those summarized in Section 4.4, SFES, during construction of the plant and associated transmission lines to avoid unnecessary adverse environmental impacts from construction activities.
  - (6) A control program shall be established by the applicant to provide for a periodic review of all construction activities to assure that those activities conform to the environmental conditions set forth in the construction permit.
  - (7) Before engaging in a construction activity which may result in a significant adverse environmental impact that was not evaluated or that is significantly greater than that evaluated in the SFES, the applicant shall provide written notification to the Director of Licensing.
  - (8) The applicant may develop either, but not both, of the two alternative access routes to the plant as the permanent plant access road; provided that approximately 500 acres of land located on the northeast tip of Bellefonte peninsula will be developed as a "generally dispersed recreation area" as defined in Tennessee Valley Authority's Recreation Plan, Volume 1, Methodology (1973); and that the proposed recreation area will be developed consistent with maximum "peak hour recreation visits" of approximately 800 visits within a two mile radius of the plant for the life of the facility.
  - (9) In the event that it is determined by the Environmental Protection Agency (EPA) that area rainfall runoff limitations are applicable to plants under construction, the applicant shall comply with the limitations for area rainfall runoff established by EPA for steam electric power generating plants or the provisions of an appropriate National Pollutant Discharge Elimination System (NPDES) Permit.
- E. In view of the fact that the Attorney General has not recommended an antitrust hearing in this matter, that no antitrust issues have been raised by another in a manner according with the Commission's Rules of Practice, and that no finding has been made that an antitrust hearing is otherwise required (10 CFR Part 2, Section 2.104(d)), antitrust review of the application for this construction permit under Section 105c of the Atomic Energy Act of 1954, as amended, has been completed and a hearing thereon determined to be unnecessary.

4. 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 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 Commission finds that operation of the facility will be in accordance with 10 CFR Part 51, of the Commission's regulations and all applicable requirements have been satisfied; and (d) the applicant submits proof of financial protection and executes an indemnity agreement as required by Section 170 of the Act.
5. This permit is effective as of its date of issuance and shall expire on the latest completion date indicated in paragraph 3.A above.

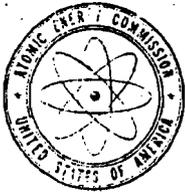
FOR THE ATOMIC ENERGY COMMISSION



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

Date of Issuance:

**DEC 24 1974**



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

TENNESSEE VALLEY AUTHORITY  
DOCKET NO. 50-438  
BELLEFONTE NUCLEAR PLANT, UNIT 1  
CONSTRUCTION PERMIT

Construction Permit No. CPPR-122

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for construction permit complies with the requirements of the Atomic Energy Act of 1954, as amended, and the rules and regulations of the Commission, there is reasonable assurance that the activities authorized by the permit will be conducted in compliance with the rules and regulations of the Commission, and all required notifications to other agencies or bodies have been duly made:
  - B. The Tennessee Valley Authority (the applicant) has described the proposed design of the Bellefonte Nuclear Plant, Unit 1 (the facility), including, but not limited to, the principal architectural and engineering criteria for the design and has identified the major features or components incorporated therein for the protection of the health and safety of the public;
  - C. Such further technical or design information as may be required to complete the safety analysis, and which can reasonably be left for later consideration, will be supplied in the final safety analysis report;
  - D. Safety features or components, if any, which require research and development have been described by the applicant and the applicant has identified, and there will be conducted, a research and development program reasonably designed to resolve any safety questions associated with such features or components;
  - E. On the basis of the foregoing, there is reasonable assurance that (i) such safety questions will be satisfactorily resolved at or before the latest date stated in the application for completion of construction of the proposed facility and (ii) taking into consideration the site criteria contained in 10 CFR Part 100, the proposed facility can be constructed and operated at the proposed location without undue risk to the health and safety of the public;

- F. The applicant is technically qualified to design and construct the proposed facility;
  - G. The applicant is financially qualified to design and construct the proposed facility;
  - H. The issuance of a permit for the construction of the facility will not be inimical to the common defense and security or to the health and safety of the public; and
  - I. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of a construction permit subject to the conditions for protection of the environment set forth herein is in accordance with 10 CFR Part 50, Appendix D of the Commission's regulations and all applicable requirements have been satisfied.
2. Pursuant to Section 103 of the Atomic Energy Act of 1954, as amended (the Act), and Title 10, Chapter I, 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, dated December 23, 1974, the Atomic Energy Commission (the Commission) hereby issues a construction permit to the applicant for a utilization facility designed to operate at 3600 megawatts thermal as described in the application and amendments thereto (the application) filed in this matter by the applicant and as more fully described in the evidence received at the public hearing upon the application. The facility, known as the Bellefonte Nuclear Plant, Unit 1 will be located on the applicant's site in Jackson County, Alabama.
3. 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 June 1, 1979, and the latest date for completion is October 1, 2011.
  - B. The facility shall be constructed and located at the site as described in the application, in Jackson County, Alabama.
  - C. This construction permit authorizes the applicant to construct the facility described in the application and the hearing record, in accordance with the principal architectural and

engineering criteria and environmental protection commitments set forth therein.

- D. This facility is subject to the following conditions for the protection of the environment:
- (1) An approved sampling program, as outlined in Section 5.4.2.5 and 6.2.1.1 of the AEC staff's Final Environmental Statement (SFES) will be implemented to obtain data necessary for assessment of the significance of the loss of ichthyoplankton through entrainment in the proposed intake.
  - (2) The data obtained in the program specified in (1) above shall be submitted to the staff for review on a continuing basis and shall form the basis for a final decision on the acceptability of the proposed intake. The results will be subjected to thorough evaluation and a decision on the intake acceptability will be made on the basis of a cost-benefit analysis which will include both projected losses of fisheries resources on the entire reservoir and real and projected costs for the plant.
  - (3) The applicant shall not use the broadcast application of herbicides on the right-of-way covered under Step One (Section 3.3, SFES) of the transmission line construction plan. (Section 5.4.1 and Appendix B, SFES).

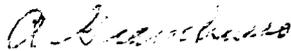
The applicant shall conduct studies which will assess the impacts of various alternative methods of transmission line construction and maintenance, and prior to any construction of Steps Two and Three (Section 3.3 SFES), the applicant shall submit (1) for staff evaluation the results of these studies and (2) an updated version of its proposed clearing and maintenance methods for staff approval. This submittal should include analysis of cost experience factors as well as environmental impacts such as the effects on vegetation, wildlife and soil stability. (Sections 4.1.2 and 9.2.4 SFES)

- (4) Prior to initiating construction of the discharge facility, the applicant shall provide the results of thermal-hydraulic analytical studies and plans for physical modelling experiments to be conducted in support of the final design and location of the plant cooling water discharge. (Sections 5.4.2.3.1 and 9.2.5 SFES)

- (5) The applicant shall take the necessary mitigating actions, including those summarized in Section 4.4, SFES, during construction of the plant and associated transmission lines to avoid unnecessary adverse environmental impacts from construction activities.
  - (6) A control program shall be established by the applicant to provide for a periodic review of all construction activities to assure that those activities conform to the environmental conditions set forth in the construction permit.
  - (7) Before engaging in a construction activity which may result in a significant adverse environmental impact that was not evaluated or that is significantly greater than that evaluated in the SFES, the applicant shall provide written notification to the Director of Licensing.
  - (8) The applicant may develop either, but not both, of the two alternative access routes to the plant as the permanent plant access road; provided that approximately 500 acres of land located on the northeast tip of Bellefonte peninsula will be developed as a "generally dispersed recreation area" as defined in Tennessee Valley Authority's Recreation Plan, Volume 1, Methodology (1973); and that the proposed recreation area will be developed consistent with maximum "peak hour recreation visits" of approximately 800 visits within a two mile radius of the plant for the life of the facility.
  - (9) In the event that it is determined by the Environmental Protection Agency (EPA) that area rainfall runoff limitations are applicable to plants under construction, the applicant shall comply with the limitations for area rainfall runoff established by EPA for steam electric power generating plants or the provisions of an appropriate National Pollutant Discharge Elimination System (NPDES) Permit.
- E. In view of the fact that the Attorney General has not recommended an antitrust hearing in this matter, that no antitrust issues have been raised by another in a manner according with the Commission's Rules of Practice, and that no finding has been made that an antitrust hearing is otherwise required (10 CFR Part 2, Section 2.104(d)), antitrust review of the application for this construction permit under Section 105c of the Atomic Energy Act of 1954, as amended, has been completed and a hearing thereon determined to be unnecessary.

4. 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 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 Commission finds that operation of the facility will be in accordance with 10 CFR Part 51, of the Commission's regulations and all applicable requirements have been satisfied; and (d) the applicant submits proof of financial protection and executes an indemnity agreement as required by Section 170 of the Act.
5. This permit is effective as of its date of issuance and shall expire on the latest completion date indicated in paragraph 3.A above.

FOR THE ATOMIC ENERGY COMMISSION



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

Date of Issuance:

**DEC 24 1974**