

PUBLIC SERVICE COMPANY OF COLORADO
FORT ST. VRAIN NUCLEAR GENERATING STATION
DOCKET NO. 50-267
FACILITY OPERATING LICENSE

License No. DPR-34

1. The Atomic Energy Commission (the Commission) having found that:
 - A. The application for license filed by the Public Service Company of Colorado (the licensee) 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 1 and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Fort St. Vrain Nuclear Generating Station (the facility) has been substantially completed in conformity with Provisional Construction Permit No. CPPR-54 and the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. The licensee is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
 - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Identity Agreements," of the Commission's regulations;

- G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the issuance of Facility Operating License No. DPR-34 (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 of said Appendix D have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, 70, and 73.
2. Facility Operating License No. DPR-34 is hereby issued to the Public Service Company of Colorado to read as follows:
- A. This license applies to the Fort St. Vrain Nuclear Generating Station, a high temperature gas-cooled nuclear reactor and associated equipment (the facility) owned by the Public Service Company of Colorado. The facility is located near Platteville in Weld County, Colorado, and is described in the "Final Safety Analysis Report" as supplemented and amended (Amendments 15 through 29) and the Environmental Report as supplemented and amended (Supplements 1 through 3).
 - B. This license is subject, for the initial rise to power, to the conditions set forth in Specification LCO 4.9-1 of the Technical Specifications attached hereto as Appendix A.
 - C. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the Public Service Company of Colorado:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location near Platteville in Weld County, Colorado, in accordance with the procedures and limitations set forth in this license;

- (2) Pursuant to the Act, 10 CFR Part 70, "Special Nuclear Material," and 10 CFR Part 73, "Physical Protection of Special Nuclear Material," to receive, possess, and use at any one time in connection with operation of the facility:
 - a. Up to 1700 kilograms of contained uranium 235,
 - b. Up to 3 curies of plutonium contained in encapsulated plutonium-beryllium neutron sources,
 - c. Alpha calibration sources of plutonium and uranium, not to exceed 10 microcuries total per element;
- (3) Pursuant to the Act and 10 CFR Part 40, "Licensing of Source Material," to receive, possess and use at any one time up to 25,000 kilograms of natural thorium in connection with operation of the facility;
- (4) Pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability to Licensing of Byproduct Material," to receive, possess and use in connection with operation of the facility:
 - a. The following without restriction as to chemical and/or physical form:
 1. Any byproduct material with Atomic numbers 1 through 83, inclusive, not to exceed 5 millicuries per radionuclide;
 2. Americium 241, not to exceed 2.01 curies;
 3. Americium 243, not to exceed 5 millicuries;
 4. Cesium 137, not to exceed 11 curies;
 5. Hydrogen 3, not to exceed 15 curies;
 6. Krypton 85, not to exceed 100 millicuries;
 7. Neptunium 237, not to exceed 5 millicuries;
 8. Polonium 210, not to exceed 10 microcuries;
 9. Thorium 228, 230, 232, not to exceed 1 millicurie per nuclide;
 10. Radium 228, 226, not to exceed 5 millicuries per nuclide;
 - b. Californium 252, 3 milligrams as sealed sources, not to exceed 0.5 curie per source;
 - c. 100 millicuries of byproduct material as contaminated test apparatus.

- e. The discharge of all demineralizer regeneration effluents will be made in accordance with the conditions set forth in Specification LCO 1.1 of Appendix B.
- f. The total quantity of effluent originating as cooling tower blowdown will be limited in accordance with the conditions set forth in Specification LCO 1.3 of Appendix B.
- g. When the discharge temperature of cooling tower blowdown exceeds 80°F, the discharge will be made in accordance with the conditions set forth in Specification LCO 1.2 of Appendix B.
- h. Cooling tower blowdown will be discharged in accordance with the conditions set forth in Specification LCO 1.1 of Appendix B.

(3) The licensee shall fully implement and maintain in effect all provisions of the following Commission approved documents, including amendments and changes made pursuant to the authority of 10 CFR 50.54(p). These approved documents consist of information withheld from public disclosure pursuant to 10 CFR 73.21:

- a. "Fort St. Vrain, Unit No. 1, Amended Security Plan," dated October 31, 1977, with revisions dated April 6, 1978, and August 30, 1978.
- b. Fort St. Vrain Guard Training and Qualification Plan (Appendix B to the Security Plan), dated February, 1982, as revised April 6, 1982. This Plan shall be followed in accordance with 10 CFR 73.55(b)(4), 60 days after approval by the Commission. All security personnel, as required in the above plans, shall be qualified within two years of this approval. The licensee may make changes to this plan without prior Commission approval if the changes do not decrease the safeguards effectiveness of the plan. The licensee shall maintain records of and submit reports concerning such changes in the same manner as required for changes made to the Safeguards Contingency Plan pursuant to 10 CFR 50.54(p).
- c. Fort St. Vrain Safeguards Contingency Plan (Appendix C to the Security Plan), dated April 6, 1982, submitted pursuant to 10 CFR 73.40. The Contingency Plan shall be fully implemented, in accordance with 10 CFR 73.40(b), within 30 days of this approval by the Commission.

- (4) The issuance of Amendment No. 23 authorizes the Public Service Company of Colorado to conduct a test program up to 100 percent full rated power in accordance with the conditions of Test Procedure RT-500K.
 - (5) Upon completion of the test program defined in RT-500, steady state full power operation will be limited to 70 percent of full power pending an evaluation of the test results by the Public Service Company of Colorado. A report of the results and evaluation shall be provided for the review and approval by NRC for subsequent steady state power operation above 70 percent full power.
- E. This license is subject to all Federal, State, and local standards imposed pursuant to the requirements of the Federal Water Pollution Control Act of 1972.
3. This license is effective as of the date of issuance and shall expire at midnight, September 17, 2008.

FOR THE ATOMIC ENERGY COMMISSION ORIGINAL SIGNED BY:

A. Giambusso

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

Attachments:

Appendices A and B - Technical Specifications

Date of Issuance: December 21, 1973