



Missouri Public Service Commission

Area Code 314
751-3234

November 14, 1984

P.O. BOX 360
JEFFERSON CITY
MISSOURI 65102

Commissioners:

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General Counsel

Commissioner James Asselstine
Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Dear Commissioner Asselstine:

It has come to my attention that you and other members of the Nuclear Regulatory Commission (NRC) have voiced concerns about the decision of the Missouri Public Service Commission (Missouri Commission) in Case Nos. ER-84-168 and EO-85-17 pertaining to the in-service criteria for the Callaway Nuclear Plant, Unit 1 (Callaway). In particular, it was suggested that our in-service criteria for ratemaking purposes would somehow encourage Union Electric Company to unduly expedite completion of the plant, at the expense of safety of the plant. I would like to address this concern.

First, the Missouri Commission believes that the NRC's requirements for safeguarding the health, safety, and welfare of the public stand alone. The Missouri Commission's requirements for ratemaking recognition of Callaway are not oblivious to the exclusive jurisdiction of the NRC over nuclear plant safety. The Missouri Commission's Report and Order of August 22, 1984 concerning the in-service criteria for Callaway requires first and foremost that the NRC-approved testing and licensing requirements must be satisfied before the plant may be included in rates.

Second, under the "file and suspend" method of proceedings set by statute in Missouri, electric utility rates must be ruled upon by the Commission within a maximum of eleven (11) months after the filing of the tariffs requesting an increase in rates. Although the suspension period in which the Missouri Commission may act is constrained by law, the timing of the utility's tariff filing is within its sole discretion. Thus, Union Electric Company initiated the schedule with which you are concerned. Prior to deciding the matter of the Callaway in-service criteria, the Missouri Commission sought to address Union Electric Company's concern that Callaway might not be in-service by the end of the eleven (11) month rate case period that Union Electric Company set in motion by the filing of tariffs on February 15, 1984. In fact, we have established an extraordinary procedure in this case to try to assure that a whole new rate case record need not be begun even though the in-service criteria are not met by the end of the current rate case. In addition, the Missouri Commission has stated that AFUDC may continue

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to be accrued on Callaway for ratemaking purposes if there is any lag between the in-service date and an order giving rate recognition of the plant. These devices should give Union Electric Company ample and adequate protection such that the Company has no incentive to unduly expedite plant completion and power ascension testing at the expense of safety considerations.

Third, I would point out that Section 393.135, RSMo 1978 was adopted by popular referendum on November 2, 1976. Said section provides that the plant of an electrical corporation must be "fully operational and used for service" before any charge may be made or demanded based on the costs of said property. While it is true that Callaway is Missouri's first nuclear plant, it has not been singled out for the application of "in-service criteria." In-service criteria have been set and applied by the Missouri Commission to nine (9) coal-fired units in the eight years since Section 393.135, RSMo 1978 became law. Our in-service criteria for Callaway are designed to assure that the plant is fully operational and used for service, and is safe and reliable, before the risks of the plant are shifted to ratepayers and costs of the plant are included in rates.

I have taken the liberty of enclosing a copy of our Report and Order on in-service criteria for Callaway, for your reference.

In summary, let me say that we have the utmost confidence in the quality and adequacy of the NRC's safety requirements for the Callaway (and Wolf Creek) nuclear plants, and fully recognize your exclusive jurisdiction over the safety of those plants. Your safety requirements must be fully met before those plants may operate commercially, regardless of the criteria we have established for rate recognition of the plants. In fact, our in-service criteria for ratemaking purposes include successful completion of the NRC's safety requirements. Therefore, I can conceive of no manner in which our in-service criteria could adversely affect the safe completion of Callaway.

If the Missouri Commission can be of assistance regarding this or any other matter, please do not hesitate to contact me.

Sincerely,


William D. Steinmeier
Chairman

Enclosure

cc: Chairman Nunzio Palladino
Commissioner Thomas M. Roberts
Commissioner Frederick M. Bernthal
Commissioner Lando W. Zech, Jr.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

CASE NO. ER-84-168

In the matter of Union Electric Company of St. Louis, Missouri, for authority to file tariffs increasing rates for electric service provided to customers in the Missouri service area of the Company.

CASE NO. EO-85-17

In the matter of the determination of in-service criteria for the Union Electric Company's Callaway Nuclear Plant and Callaway rate base and related issues.

APPEARANCES: Paul A. Agathen, Attorney at Law, and Gerald Charnoff, Attorney at Law, P. O. Box 149, St. Louis, Missouri 63166, for Union Electric Company.

William Clark Kelly, Assistant Attorney General, P. O. Box 899, Jefferson City, Missouri 65102, for the State of Missouri.

William M. Barvick, Attorney at Law, 124 East High Street, Jefferson City, Missouri 65101, for the City of Jefferson, et al.

Richard W. French, Assistant Public Counsel, P. O. Box 7800, Jefferson City, Missouri 65102, for the Office of the Public Counsel and the Public.

William C. Harrelson, Deputy General Counsel, P. O. Box 360, Jefferson City, Missouri 65102, for the Staff of the Missouri Public Service Commission

REPORT AND ORDER - PHASE I
PROCEDURAL HISTORY

On February 15, 1984, the Union Electric Company (hereinafter Company) filed revised tariffs seeking authority to increase rates for electric service provided to customers in the Missouri service area of the Company. The tariffs bore an effective date of March 16, 1984.

The Company has proposed four criteria while the Staff has proposed six criteria. Missouri Retailers Association, which participated in the prehearing conference only, supports Staff. The Public Counsel and the City of Jefferson, et al., support Staff's Criteria 1 through 5 but oppose Staff's Criterion 6. All parties argue that their respective positions propose criteria which necessarily must be satisfied to support a finding by the Commission that the Callaway Nuclear Plant is "fully operational and used for service" within the meaning of Section 93.135, RSMo 1978.

The Company takes the position that the plant should be declared "in-service" when the plant is providing safe and reliable power. The Company's "in-service" criteria is as follows:

Criterion 1. The Company was granted an operating license by the Nuclear Regulatory Commission to operate the plant at high power levels.

Criterion 2. The turbine generator and nuclear steam supply system have demonstrated the capability to sustain reliable power operation.

Criterion 3. The plant has supplied electricity to the Company's system with output scheduled by the system load dispatcher.

Criterion 4. All components of the plant needed to generate at 100 percent of capacity are capable of operation.

Company's four criteria will be satisfied at 50 percent power although the Company intends to complete all testing required by the Nuclear Regulatory Commission (hereinafter NRC) and complete full power ascension to 100 percent power prior to declaring the plant "in service". The minimum standard for declaring the plant "in service" under the Company's criteria is at the 50 percent power level after having operated at that level for 25 to 30 days. The Company desires to retain the flexibility to declare the plant "in-service" somewhere between 50 and 100 percent power in the event the Company is restrained at some power level between 50 and 100 percent. Such restraint could be imposed by the NRC or it could be self-imposed because of some equipment problem.

moisture carried over with the steam, since it is important to remove as much moisture as possible so as not to endanger the turbine generator. A high moisture carryover could affect design efficiency and turbine longevity.

Although the Company intends to complete testing at all power levels prior to declaring the plant "in service" if everything goes well, it does not intend to complete the above-referenced warranty tests prior to declaring the plant "in-service" since these tests are not required by the NRC.

The Staff includes both warranty tests in its criteria as well as the requirement that the plant be operated for 100 continuous hours at full power (95 to 100 percent) to demonstrate the performance of the entire plant at the full power level. The 100-hour test proposed by Staff may or may not be satisfied during the NSSS acceptance test depending on the circumstances.

The Company maintains that the plant need not reach full power in order to be determined "in-service". In addition, the Company argues that the Staff's Criterion 1 is overly stringent since it not only requires that the plant reach full power but requires the completion of warranty tests. In the Company's view these warranty tests are not necessarily related to a determination of whether the plant is operational and are based solely on the specific contract entered into by the Company and the manufacturer.

With respect to the moisture test, the Company further argues that it should not be required since the Company asserts it has no near term significance with respect to the operability or reliability of the steam generator.

Criterion 2. The preoperational test program shall be successfully completed.

The preoperational test program consists of a series of tests which verify that plant components and systems fulfill their designed intent, demonstrate proper system and component response to postulated accidents and familiarize plant staff with the plant operations.

The purpose of this criteria is to demonstrate that Company personnel are capable of operating the plant in a competent manner and that no hardware problems exist which interfere with reliable operation of the plant. Staff maintains that Criterion 5 in conjunction with Criterion 1 assures reliable plant operations.

The Company objects to Criterion 5 on the ground that it is inappropriate for the Staff to duplicate the role of the NRC. In addition, the Company argues that the reporting requirements for each delay of over 100 hours is too burdensome. If such a requirement is imposed on the Company, the Company recommends that it report any single event which causes a delay of 100 hours or more in a milestone event or in the overall schedule. The Company asserts that only milestone events are reviewed by management and, therefore, restricting Criterion 5 to milestone events will focus on possibly significant events. Events other than milestone events can be altered at will by test schedulers and do not require management approval. The Company argues that scheduled alterations are inevitable and are not necessarily significant. Milestone events are designated by black circles and arrows on Exhibit A4, Schedule A.

In addition, the Company contends that the requirement to report each 100-hour delay is overly stringent since the NRC requires approval for modification to the test program of delays that exceed 30 days regarding tests occurring at below 50 percent power level and 14 days when the power level exceeds 50 percent.

Company states that it is willing to meet with Staff and other interested parties on a regular basis to explain the progress of the start up schedule. The Company is concerned that Criterion 5 in and of itself could delay the "in-service" date because of the time involved in the preparation and Staff review of the information required.

Criterion 6. Exemptions from Criterion 1-5 may be granted or the determination made that the plant is fully operational at some power level less than the rated full power originally proposed for good cause shown.

Criterion 1. The UE's Startup Testing Program, which is outlined in Exhibit A4, Schedule A, shall be successfully completed. This shall include a successful uninterrupted run of at least 100 hours during which power is furnished to the grid at a level between 95 percent and 100 percent. 100 percent is 3425 MW thermal with a gross turbine output of 1185.8 MWe.

Since the Moisture Carryover test will demonstrate design efficiency and turbine longevity, the Commission determines that the test should be completed. The Company is confident that the unit will have a low moisture carryover. Although the Company maintains that the moisture carryover is an efficiency concern rather than a reliability concern and is therefore not a near-term problem, Company witness did state that a very great moisture carryover would be quite serious.

The Commission determines that it is appropriate to require the completion of the NSSS warranty test since the test demonstrates the capability of sustained operation at the rated thermal output. The Company expects to operate the plant when available at full load and therefore completion of the NSSS test will provide a high level of assurance that the steam supply system can perform as expected and as warranted by the manufacturer.

If all goes well, the moisture test, the NSSS test and the 100-hour test can be completed simultaneously. The Company plans to complete these tests and according to the Company's test schedule contained in Exhibit A4, Schedule A, the tests will be completed 14 to 15 days after the completion of power ascension. The Company proposes to declare the plant "in service" when power ascension is complete absent some restriction. In the Commission's opinion, the delay of 14 to 15 days is well worth a high level of assurance that the plant has demonstrated the capability of sustained operations at full power as warranted.

Criterion 2. The Preoperational Test program shall be successfully completed.

Criterion 3. The plant and associated transmission facilities have been tested capable of supplying to the Company's Missouri customers their full share of its rated power and can do so with the single most critical transmission line out of service.

operations.

Criterion 6. Exemptions from Criterion 1-5 may be granted on the determination made that the plant is "fully operational" at some power level less than the rated full power originally proposed for good cause shown.

The Commission believes that flexibility is important since these criteria are being established absent evidence of facts regarding the operating experience during start-up testing.

Criterion 7. The plant is supplying electricity to the Company's system with output scheduled by the system load dispatcher.

The Commission has added Criterion 7 to ensure that the electricity is being supplied to customers.

The Commission determines that the criteria established herein provide protection to the Company's customers against the risk of paying for a plant that turns out to be seriously defective. In the Commission's opinion the satisfaction of Criteria 1 through 5 clearly will provide the greatest assurance that the Callaway Plant is capable of providing safe, adequate, reliable and efficient service. Therefore, Criteria 1 through 5 set an optimal standard for determining when the Callaway Plant will be eligible for inclusion in rate base, but are not necessarily the minimum legal standards required to support a finding of "fully operational and used for service" under Section 393.135, RSMo 1978.

Prior to receiving any evidence regarding the operating experience of the plant the Commission is not prepared to make a finding at this juncture that a demonstration of safe and reliable plant operations at some power level less than 100 percent will never constitute "fully operational and used for service" within the meaning of Section 393.135, RSMo 1978.

Section 393.135, RSMo 1978, prohibits charges based on costs associated with property before the property is fully operational and used for service. The statute does not mandate that such costs be included in rates upon a minimum showing that the statutory requirements have been met. Therefore, the Commission has

Exhibit A4, Schedule A constitute tests required under Criterion 1. If Staff and Company cannot reach agreement as to which events constitute tests, the issue should be brought to the Commission's attention.

ORDERED: 4. That this Report and Order shall become effective on the 27th day of August, 1984.

BY THE COMMISSION

Harvey G. Hubbs

Harvey G. Hubbs
Secretary

(S E A L)

Steinmeier, Chm., Musgrave, Mueller,
Hendren and Fischer, CC., Concur.
Certify compliance with the provisions
of Section 536.080, RSMo 1978.

Dated at Jefferson City, Missouri,
this 22nd day of August, 1984.