VERIFIED STATEMENT OF

ROBERT B. FANCHER
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE

PUBLIC SERVICE COMMISSION OF THE

STATE OF MISSOURI CASE NO. ER-97-81 ANY

JUL 1 1997

PUZLIC SOVICE COMMUSSION

My name is Robert B. Fancher. I am employed by The Empire District Electric Company ("Empire") as Vice President - Finance and Chief Financial Officer. I have previously filed direct testimony in this proceeding.

The purpose of this verified statement is to support the Response to Notice which Empire filed in this docket on June 30, 1997, and to discuss in greater detail the status of Empire's State Line Combustion Turbine Unit No. 2 ("the plant").

I am familiar with the construction and pre-operational testing and operation of the plant prior to June 21, 1997 and currently. Prior to midnight, June 21, 1997, the plant was fully operational and used for service and was in substantial compliance with the in-service criteria proposed by the Commission Staff ("Staff") in this proceeding. Moreover, the plant has operated at full capacity on both natural gas and oil, and was, prior to June 21, 1997, fully accredited under the guidelines established by both the MOKAN and the Southwest Power Pools. Accordingly, the cost of the plant should be included in rates in this proceeding pursuant to paragraph 3.A. in the First Amended Unanimous Stipulation and Agreement previously filed in this docket.

I have reviewed the verified statement filed by Staff member C. Bruce Deering on June 30, 1997, and believe that it supports my position with respect to the fully operational and

used for service status of the plant as of June 21, 1997. In fact, at page 1 of his verified statement, Mr. Deering observed that the plant is in operation serving native load as well as providing power for off-system sales to neighboring utility companies. The plant actually began meeting customer demand as early as June 18, 1997 and continues to do so as of this date. Furthermore, the plant has performed at capacity levels above the warranty condition and the heat rate of the plant is better than the warranty promised. These facts are confirmed at pages 4 and 5 of Mr. Deering's verified statement.

I recognize that the Staff contends that because the plant did not meet certain of the Staff's in-service criteria that the revenue requirement associated with the plant should not be included in rates in this proceeding. I disagree with this conclusion. The purpose of the use of the criteria, from Empire's point of view, is to assist in the application of §393.135 RSMo which prohibits rate recovery for the plant until it is fully operational and used for service. Empire never understood that the criteria were to be elevated above the statute or that a hypertechnical application of the criteria was intended such as would defeat the clear meaning of the statute. Rather Empire always assumed that substantial compliance with the criteria, in this case, as opposed to absolute compliance, would be sufficient so long as the ultimate statutory criteria, "fully operational and used for service", are satisfied.

The specific criteria the Staff contends the plant did not meet and Empire's responses are as follows:

#### **CRITERIA**

• "The generating unit shall demonstrate its ability to start when prompted only by a signal from a remotely located control center, once burning natural gas and once while

burning distillate oil." (Criteria #2)

As noted in the verified statement of Mr. C. Bruce Deering, "No such remote start-up on oil was attempted because a relatively small water injection pump needed for operation on oil, failed before the attempt (see discussion below). This criteria was not met since the unit was not started remotely while operating on oil."

### Empire's Response:

The remote start on oil was not completed due solely to the failure of the water injection pump. Parts to repair the pump are estimated to cost less than \$20,000 and will be available in the near future at which time the activities which require this pump will be completed. Empire fully expects the unit to meet this criteria shortly after repair of the water injection pump. Nevertheless, again as noted in Mr. Deering's statement, the input for a remote start on oil enters the control system at the same point as a local startup on oil which has been demonstrated and documented in Empire's submittal to the Staff on the inservice criteria.

#### CRITERIA

• "While burning natural gas and operating at the Base Capacity condition, the generating unit shall achieve the warranted NOx emission level of 25 parts per million (volumetric). (Criteria #8)

As noted in the verified statement of C. Bruce Deering, "Due to lack of time Empire was not able to complete the NOx emission tests, before the deadline of midnight June 21, 1997. Thus, this criteria was not met."

## Empire's Response:

NOx emission testing was completed at the base load condition, on June 17, 1997. A preliminary copy of the test results is contained in Empire's submittal to the Staff on the in-service criteria. It is correct that Empire chose not to tune the engine to lower NOx emissions prior to June 21, 1997. However, the preliminary test results indicate a NOx emission rate of 87.7 PPM while operating at base load. The in-service criteria provide a method to adjust for emissions above 25 ppm to net out emissions with capacity and performance. Therefore, Empire believes this criteria was satisfied.

## **CRITERIA**

• The generating unit shall demonstrate consistency in its ability to operate at or above a pre-defined minimum load by running for three days (72 hours) at or above 40 MW while under control of the system dispatcher. This test shall be conducted while burning natural gas, except that a transition to distillate oil shall be made sometime during the three-day period, after which, for an eight (8) hour period, only distillate oil shall be burned. The transition from natural gas to distillate oil fueling shall be made while the unit is in operation. If the unit drops below 20 MW when the fuel transition is made, then credit will be given for successful testing on natural gas, if successfully completed previously, and an extended rerun on natural gas will not be necessary before attempting the transfer to oil. However, the rerun must be started on gas,

followed by a successful transition to distillate oil and an 8 hour run on oil. If the Company elects, the four hour run at Base Capacity can be included in this 72 hour run to demonstrate consistency in holding minimum load. (Criteria #9)

As noted in the verified statement of C. Bruce Deering, "In my opinion the unit clearly demonstrated consistency in its ability to carry minimum load, but this criteria was not met."

# Empire's Response:

The criteria is about consistency to operate. Therefore, Mr. Deering's statement indicates that the unit is serving the intended purpose. Nevertheless on a point by point basis:

- The first point is that during an electrical system disturbance caused by a storm front moving through the area with reported lightning (clearly an "act of God"), circuit breakers in the electrical system operated properly to clear an abnormal condition and reclosed to restore service to Empire's customers. This act of God caused the unit indicated output to drop below the stated 40 Mw minimum load, to 39.74 MW for a very brief period, similar to a light blink, during which time the computer recorded its instantaneous reading of 39.74 Mw and returned to the load set point on the next reading. Clearly operation of the unit was normal.
- The second point is the inability of the unit to transfer from natural gas to oil. As noted in the verified statement of C. Bruce Deering, "the unit was not able to demonstrate the transition from natural gas to distillate oil. Operation

during the entire 72 hour period was on gas; no transfer to oil was attempted during the 72 hour run. Subsequently, but before the unit shut down, the transfer from gas to oil was attempted unsuccessfully, although several hours (8-9 hours) of operation on oil had occurred on June 11, 1997. The failure to make the successful gas-to-oil transfer was caused by failure of a relatively small water injection pump which is required to purge the fuel lines when transferring from gas to oil."

## Empire's Response:

The above statement is materially correct. The pump failure was apparent when the fuel transfer was attempted. This is a small pump and will be repaired in the near future at which time the unit will transfer from gas to oil.

Nevertheless, prior to the pump failure, the unit had demonstrated its ability to operate on oil fuel with the water injection pump operating, and in fact produced 1480Mwhr of electrical energy, which is almost four times the amount indicated by the in-service criteria, and had operated for over 13 hours above 40 Mw, again an amount of time well in excess of the amount indicated by the inservice criteria.

In view of the foregoing and as well as considering the fact that the plant satisfied the other criteria, the plant must be considered to be in substantial compliance with the criteria. Substantial compliance with the criteria, in this case, as opposed to absolute compliance, is sufficient so long as the ultimate statutory criteria, "fully operational and used for service" are satisfied.

It is clear from Mr. Deering's verified statement that as of June 21, 1997, the plant was in substantial compliance with the Staff's proposed in-service criteria, but more importantly that it met the statutory test of §393.135 RSMo of being fully operational and used for service. In addition to noting that the plant is in operation serving native load and providing power for off-system sales, Mr. Deering also observed at page 1 of his statement that "Although all the specified criteria were not met, the unit is currently capable of producing its full capacity, when burning gas fuel".

Therefore, while admitting on the one hand that the plant is serving customers and can operate at full capacity, but in concluding on the other hand that the plant is not in service, it would seem that the Staff has either misapplied its own criteria or has allowed the criteria to get in the way of or supersede the statute. Again, the focus should be on the statutory requirement. Consideration should be given to the plant meeting the criteria, but only to the extent necessary to apply the statute which is what Empire understood the purpose of the criteria to be all along.

In this regard, the phrase "fully operational and used for service" contained in §393.135 should be considered using the meanings of the individual words set out in Webster's dictionary for the appropriate application.

For example, the authoritative interpretation of the terms "fully operational and used for service" is established by reference to the definition for each of the key words in Webster's dictionary of the American language. These definitions for each word are:

Fully: The word "fully" is an adverb modifying operational, meaning that there

are no physical restrictions preventing operation of the plant. For a power plant to be "fully" operational, the process systems essential to operation of the unit would be required to be in place and be operable as a part of a unit able to generate and supply electricity for use.

Operational: The word "operational" is an adjective defined as "a system that can be used or operated or is in use". The system in this instance is the generating plant unit.

<u>Used</u>: The word "used" is a transient verb meaning "to put into service", or "to apply to a given purpose". This definition was satisfied when the plant was synchronized as a part of the electrical system of Empire and did generate electricity into the system June 18, 1997.

Service: The word "service" is a noun meaning "a system or method of providing people with the use of something, as electric power . . . . " Here it would mean that the plant would be used as a part of the entire electric system or method of providing electric power to customers, including power supply sources, transmission and distribution lines, etc. required for the supply of electricity to customers. It is a general term, and would not require that any specific amount of electricity must be generated by any element of the system, such as the plant at any specific time, although the aggregate service provided

by the entire system must meet all customer requirements.

Clearly with these definitions in mind, the plant met all of the requisite conditions specified by the wording in the statute "fully operational and used for service" on and after June 21, 1997, and was fully operational and used for service on and after June 21, 1997. In fact, it was fully operational and used for service before June 21, 1997.

### **AFFIDAVIT**

STATE OF MISSOURI	)
	) ss
COUNTY OF JASPER	)

On the 1st day of July, 1997, before me appeared Robert B. Fancher, to me personally known, who, being by me first duly sworn, states that he is the Vice President - Finance and Chief Financial Officer of The Empire District Electric Company and acknowledged that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

Robert B. Fancher

Subscribed and sworn to before me this 1st day of July, 1997

Patricia A. Settle, Notary Public

My Commission expires: August 9, 1998.

PATRICIA A SETTLE

Notary Public - Notary Seal

STATE OF MISSOURI

JASPER COUNTY

MY COMMISSION EXP. AUG. 9,1998