Nuclear Operating Company

South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

September 30, 2003
NOC-AE-03001618
10CFR50.90

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498 and STN 50-499
Revised Response to Request for Additional Information Regarding a
Proposed Amendment to Technical Specification 3.4.2.2

Reference: Letter, G. L. Parkey to NRC Document Control Desk, "Response to Request for Additional Information Regarding a Proposed Amendment to Technical Specification 3.4.2.2," dated September 10, 2003 (NOC-AE-03001592)

This letter provides a revised response to the second question presented in the referenced letter. We have provided additional information based on further discussion with the NRC staff. If there are any questions regarding this response, please contact Mr. Scott Head at (361) 972-7136.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 30, 2003

G. L. Parkey
Vice President, Generation

jtc

Attachment: Revised Response to Request for Additional Information

A001

STI: 31660090

cc:
(paper copy)

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Revised Response to Request for Additional Information

2. Please discuss the effects of the change of PSV setting to the system downstream of the PSVs including the tail piping and pressurizer relief tank (PRT).

Response:

The amendment request does not involve any physical modification of plant design, changes in plant operation, or revision of lift setting of the PSVs. There are no physical changes that would affect the design acceptability of the system downstream of the PSVs including the tail piping and PRT.

The existing definition of pressurizer safety valve (PSV) operability per Technical Specification 3.4.2.2 is ±2% of the setpoint pressure. The proposed definition of operability is +2%, -3%. The +2% is currently an analyzed condition in the UFSAR; the effect of -3% is discussed below.

UFSAR Section 5.4.11.1 states:

> The system design is based on the requirement to absorb a discharge of steam and consequent heat input equivalent to 110 percent of the full power pressurizer steam volume. The steam volume requirement is approximately that which would be experienced if the plant were to suffer a complete loss of load accompanied by a turbine trip but without the resulting direct reactor trip. A delayed reactor trip is assumed in the design of the system for the loss of load condition.

UFSAR Section 5.4.11.3 states:

> The pressurizer relief discharge system is capable of handling the design discharge of steam without exceeding the design pressure and temperature.

The analysis of a complete loss of load accompanied by a turbine trip without the resulting direct reactor trip was performed with the PSV lifting at -3% of the lift setpoint. The results of the analysis show that the reactor coolant system pressure increases at the onset of the transient, but the pressurizer does not become water solid during the transient. As a result, the full pressurizer steam volume does not discharge to the pressurizer relief tank (PRT) and the PRT design basis capacity of 110 percent of the full power pressurizer steam volume is not challenged. Therefore, the proposed Technical Specification change would not expose the PRT to an unanalyzed condition.