

PUBLIC SERVICE COMPANY OF OKLAHOMA

A CENTRAL AND SOUTH WEST COMPANY

P.O. BOX 201 / TULSA, OKLAHOMA 74102 / (918) 583-3611

Public Service Company of Oklahoma
 Black Fox Station Units 1 and 2
 Response to Staff Request on TMI
 U.S. NRC Docket No. STN50-556, 50-557



August 24, 1979
 File 6212.125.3500.21L
6212.217.0521.21L

Mr. Steven A. Varga, Assistant Director
 Division of Project Management
 Office of Nuclear Reactor Regulation
 U. S. Nuclear Regulatory Commission
 Washington, D. C. 20002

Dear Mr. Varga:

Your request asked PSO to augment our earlier commitment relating to the Three Mile Island licensing requirements. We have reviewed Mr. Denton's attached letter of August 20, 1979 and the enclosures thereto and are responding to those additional requirements and clarifications not previously contained in our submittals of July 27, 1979 and August 8, 1979.

Alternatives to Shift Technical Advisors

In the submittal of July 27, 1979 as clarified by the letter of August 8, 1979, PSO committed to the NRC staff position in NUREG 0578, Appendix A relating to the Shift Technical Advisor. We have reviewed Enclosure 2 to Mr. Denton's letter to the Commission of August 20, 1979 and concur that there are certainly alternative approaches which can satisfactorily accomplish the functions described by the Lessons Learned Task Force for the Shift Technical Advisor. PSO commits to utilizing the additional guidance set forth in Enclosure 2, in meeting its original commitments.

Instrumentation to Monitor Containment Conditions During the Course of an Accident

PSO has reviewed Enclosure 3 of Mr. Denton's August 20, 1979 letter which discusses the ACRS recommendations contained in their letter of August 13, 1979, (Enclosure 1) regarding three additional instrumentation requirements for short-term action. The staff position and our commitment for each is as follows:



CENTRAL AND SOUTH WEST SYSTEM

Central Power and Light
 Corpus Christi, Texas

Public Service Company of Oklahoma
 Tulsa, Oklahoma

Southwestern Electric Power
 Shreveport, Louisiana

West Texas Utilities
 Abilene, Texas

90-230

NONE
 SEE
 LIST

7909050354

NRC Staff Position

Consistent with satisfying the requirements set forth in General Design Criteria 13 to provide the capability in the control room to ascertain containment conditions during the course of an accident, the following requirements shall be implemented:

- (1) A continuous indication of containment pressure shall be provided in the control room. Measurement and indication capability shall include three times the design pressure of the containment for concrete, four times the design pressure for steel, and minus 5 psig for all containments.
- (2) A continuous indication of hydrogen concentration in the containment atmosphere shall be provided in the control room. Measurement capability shall be provided over the range of 0 to 10% hydrogen concentration under both positive and negative ambient pressure.
- (3) A continuous indication of containment water level shall be provided in the control room for all plants. A narrow range instrument shall be provided for PWR's and cover the range from the bottom to the top of the containment sump. Also, for PWR's a wide-range instrument shall be provided to cover the range from the bottom of the containment to the elevation equivalent of a 500,000 gallon capacity. For BWR's, a wide-range instrument shall be provided and cover the range from the bottom to 5 feet above the normal water level of the suppression pool.

The containment pressure, hydrogen concentration and wide-range containment water level measurement shall meet the design and qualifications of Regulatory Guide 1.97, including qualifications, redundancy, and testability. The narrow-range containment water level measurement instrumentation shall be qualified to meet the requirements of Regulatory Guide 1.89 and shall be capable of being periodically tested.

PSO Commitment

PSO will provide the instrumentation as required in the staff position and will document the description of same in the FSAR at the time of submittal and in support of application for an operating license.

Installation of Remotely Operated High-Point Vents in the Reactor Coolant System

PSO has reviewed Enclosure 4 to Mr. Denton's August 20, 1979 letter that relates to the installation of reactor coolant systems and reactor vessel head high-point vents remotely operated from the control room.

We agree with the staff assessment that BWR's presently provide diverse venting capability and therefore address the requirement objective. In the event of formation of non-condensable gases in a primary coolant system of the reactor, means are available to vent these gases from the primary system to assure the gases do not interfere with normal coolant flow pathways. The boiling water reactor normally operates in the non-solid, vented condition with steam and non-condensable gases vented through the steam line to the main condenser. If the reactor is isolated from the main condenser, the reactor pressure vessel dome can be vented to the suppression pool via the safety relief valves (automatic depressurization system). In addition, a remotely operated vent from the top of the reactor pressure vessel dome vents directly into the drywell sump.

NRC Staff Position

Each applicant licensee shall install the reactor coolant system and reactor vessel head high-point vent remotely operated from the control room. Since these vents form a part of the reactor coolant pressure boundary, the design of the vent shall conform to the requirements of Appendix A to 10CFR50 General Design Criteria. In particular, these vents shall be safety grade, and shall satisfy the single failure criterion and the requirements of IEEE 279 in order to ensure a low probability of inadvertent actuation.

Each applicant and licensee shall provide the following information concerning the design and operation of these high-point vents:

- (1) A description of the construction, location, size, and power supply for the vents, along with results of analysis of loss of coolant accidents initiated by a break in the vent pipe. The results of the analysis should be demonstrated to be acceptable in accordance with the acceptance criteria of 10CFR50.46.
- (2) Analysis demonstrating that the direct venting of non-condensable gases with perhaps high hydrogen concentration does not result in violation of combustible gas concentration limits in containment as prescribed in 10CFR50.44, Regulatory Guide 1.7 (Rev. 1), and standard review plan Section 6.2.5.
- (3) Procedural guidelines for the operators use of vents. The information available to the operator for initiating or terminating vent usage shall be discussed.

PSO Commitment

PSO will comply with the above staff position and will document provisions for high-point venting and the analysis in the final safety analysis report when it is submitted in support of an application for an operating license.

Errata to NUREG 0578

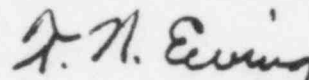
PSO has reviewed the errata and clarifying comments to NUREG 0578 as contained in Enclosure 5 to Mr. Denton's August 20, 1979 letter. We appreciate the expansions and corrections and wish to note that our previous commitments are not changed by those additions.

It is the express intent of PSO to commit as described in our submittals of July 27, 1979, August 8, 1979, and herein to the requirements of the Lessons Learned Task Force (described in NUREG 0578), the Bulletin and Orders Task Force (described in I&E Bulletin 79-08), and the information paper to the Commission concerning emergency preparedness (SECY-79-450 dated July 23, 1979) as well as the four additional requirements previously described herein from Mr. Denton's August 20, 1979 letter.

PSO will, at the time of submittal in support of application for operating licenses, fully describe in the final safety analysis report for Black Fox Station, its compliance with the requirements as they relate to the design, construction, and operation of the Black Fox facility.

Additionally, PSO will document these commitments in the form of an amendment to the Black Fox Station Preliminary Safety Analysis Report prior to the imminent reopening of the radiological and health and safety hearings.

Very truly yours,



T. N. Ewing, Manager
Black Fox Station Project

TNE:VLC:jk
Attachment

cc: BFS Service List

BLACK FOX STATION SERVICE LIST

Mr. Lawrence Burrell
Route 1, Box 197
Fairview, OK 73737

Andrew T. Dalton
1437 So. Main St., Suite 302
Tulsa, OK 74119

L. Dow Davis, William D. Paton,
and Colleen Woodhead
Counsel for NRC Staff
USNRC
Washington, D.C. 20555

Mrs. Carrie Dickerson
Citizens Action for Safe Energy, Inc.
P. O. Box 924
Claremore, OK 74017

Mr. Gerald F. Diddle, Gen. Mgr.
Associated Electric Cooperative, Inc.
P. O. Box 754
Springfield, MO 65801

Joseph R. Farris, John R. Woodard III
Feldman, Hall, Franden, Reed and
Woodard
816 Enterprise Building
Tulsa, OK 74103

Mr. Joseph Gallo
Isham, Lincoln & Beale
1050 17th Street, N.W.
Washington, D.C.

Mr. William G. Hubacek
USNRC, Region IV
Office of Inspection and Enforcement
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76012

Mr. Maynard Human, Gen. Mgr.
Western Farmers Electric Cooperative
P. O. Box 429
Anadarko, OK 73005

MHB Technical Associates, Inc.
1723 Hamilton Avenue, Suite K
San Jose, CA 95125

Michael I. Miller
Isham, Lincoln & Beale
One First National Plaza, Suite 4200
Chicago, IL 60603

Mr. Jan A. Norris
USNRC, Environmental Projects Branch 3
Phillips Building
7920 Norfolk Avenue
Bethesda, MD 20014

Charles S. Rogers, Asst. Attorney General
112 State Capitol Building
Oklahoma City, OK 73105

Mr. Cecil Thomas
USNRC
Phillips Building
7920 Norfolk Avenue
Bethesda, MD 20014

Mrs. Ilene Younghein
3900 Cashion Place
Oklahoma City, OK 73112