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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of

13562

Texas Utilities Electric Company

Docket No. 50-446-01

(Comanche Peak Steam Electric Station, Unit 2)

TU ELECTRIC'S RESPONSE TO CFUR'S REQUEST OF JANUARY 13, 1993

On January 13, 1993, Citizens for Fair Utility Regulation (CFUR) submitted a "request for action" (Request), asking the Commission to issue a notice of hearing on whether an operating license (OL) should be issued for Comanche Peak Steam Electric Station (CPSES), Unit 2. As a basis for its request, CFUR raised allegations related to Borg-Warner check valves and Thermo-Lag. In accordance with the Commission's Order dated January 22, 1993, Texas Utilities Electric Company (TU Electric) hereby submits its response to CFUR's Request and urges the Commission to promptly reject it.

CFUR is a former intervenor in the CPSES OL proceeding. CFUR withdrew its intervention years before the proceeding was settled and dismissed. Subsequently, CFUR tried without success to re-intervene in the OL proceeding. It also submitted petitions under 10 C.F.R. § 2.206 requesting the NRC to take

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action against CPSES based upon issues related to the Borg-Warner check valves and Thermo-Lag. The NRC denied the petitions' requested relief. Now, literally days before the NRC is scheduled to issue the operating license for CPSES Unit 2, CFUR is requesting Commission action on the very issues which it has unsuccessfully raised in the past.

As is explained in more detail below, CFUR's Request is patently frivolous. More than a decade ago, the NRC took the very action requested by CFUR - - i.e., issuance of a notice of hearing on the CPSES OL proceeding. Furthermore, CFUR's request obviously does not satisfy the requirements in 10 C.F.R. § 2.206 because it essentially does nothing more than repeat allegations made by CFUR in previous 2.206 petitions that were rejected by the NRC. Specifically, the NRC determined that the matters being raised by CFUR do ...c have any substantial safety significance. In short, CFUR's Request fails to provide any basis whatsoever for Commission action and accordingly, its request should be denied.

BACKGROUND

On February 28, 1978, an application for operating licenses for CPSES Unit: 1 and 2 was filed with the Commission. On February 5, 1979, the Commission published a notice of opportunity for hearing in the CPSES OL proceeding in the <u>Federal</u> <u>Register</u>. (44 Fed. Reg. 6995) (1979). In response to this notice, several petitions to intervene were submitted, including

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petitions by CFUR and Citizens Association for Sound Energy (CASE). The licensing board presiding over the OL proceeding granted these petitions. As a result, a notice of evidentiary hearing was issued on September 23, 1981. (16 Fed. Reg. 47033) (1981). CFUR participated in this evidentiary hearing and was a party to the CPSES OL proceeding until it voluntarily withdrew in early 1982. <u>See</u> Order (Following Conference Call), <u>slip op.</u> at 2 (April 2, 1982).

Subsequent to CFUR's withdrawal, hearings in the CPSES OL proceeding continued for several more years. Following lengthy interactions among the NRC Staff, CASE and TU Electric, CASE agreed to settle the proceeding. This settlement was approved by the licensing board, and the proceeding was dismissed on July 13, 1988. <u>See Texas Utilities Electric Co.</u> (Comanche Peak Steam Electric Station, Units 1 and 2), LBP-88-18B, 28 NRC 103 (1988).

Immediately following the dismissal, CFUR attempted to reopen the OL proceeding by submitting a late petition to intervene. The Commission denied CFUR's untimely petition, and this denial was upheld by the United States Court of Appeals for the Fifth Circuit. <u>See Texas Utilities Electric Co.</u> (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-88-12, 28 NRC 605 (1988), <u>aff'd sub nom. Citizens For Fair Utility Regulation</u> <u>v. NRC</u>, 898 F.2d 51 (5th Cir.), <u>cert. denied</u>, 111 S. Ct. 246 (1990).

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Undeterred, CFUR continued to file further petitions with the NRC. For example, on November 20, 1990, CFUR submitted a petition under 10 C.F.R. § 2.206 requesting that the NRC institute a proceeding to revoke, modify, or suspend the operating license for CPSES Unit 1. As a basis for this request, CFUR made several allegations regarding the Borg-Warner check valves installed at CPSES, including allegations regarding failures of the valves, qualification of the internal parts of the valves, adequacy of TU Electric's corrective actions for the valves, documentation for the valves, and an NRC inspection report of the Borg-Warner facility. The NRC reviewed and rejected CFUR's petition, concluding that it did not raise any substantial health and safety issues. <u>See Texas Utilities Electric Co.</u>, (Comanche Peak Steam Electric Station, Unit 1), DD-91-5, 34 NRC 209 (1991).

Similarly, on August 12, 1992, a group called Nuclear Information and Resource Service (NIRS) submitted an addendum to its July 21, 1992, 2.206 petition related to Thermo-Lag. This addendum was filed on behalf of a number of groups, including CFUR. Among other things, the 2.206 petition and addendum requested a shutdown of CPSES Unit 1 and a halt to construction of CPSES Unit 2, citing for example "five years" of problems with Thermo-Lag at River Bend, a draft NRC Generic Letter dated February 11, 1992, NRC Bulletin 92-01 dated June 24, 1992, and escalated enforcement actions involving Thermo-Lag at CPSES in

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1990 and fire watches at CPSES in 1991. On August 19, 1992, the Director of Nuclear Reactor Regulation issued a letter to NIRS denying emergency relief on the Thermo-Lag issues, finding that they "do not pose an undue risk to the health and safety of the public." 1/

On January 13, 1993, CFUR submitted its request for hearing on the issuance of the operating license for CPSES Unit 2. For all intents and purposes, the issues raised in this Request are identical to the issues that CFUR raised in its 2.206 petitions on the Borg-Warner check valves and Thermo-Lag that the NRC previously rejected.

DISCUSSION

I. The NRC Has Already Taken the Requested Action.

CFUR is requesting that the Commission use 10 C.F.R. § 2.104 to issue a notice of hearing regarding issuance of an operating license for CPSES Unit 2. However, the NRC has already issued such a notice.

As was discussed above, the NRC issued a notice of opportunity for hearing (44 Fed. Red. 6995 (1979)) and a notice of evidentiary hearing (46 Fed. Reg. 47033 (1981)) related to the CPSES OL proceeding. In fact, CFUR participated in the hearings that were held in response to these notices until it voluntarily

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^{1/} Letter from Thomas Murley, Director Office of Nuclear Reactor Regulation (NRC) to Michael Mariotte (NIRS), dated Aug. 19, 1992, p. 3.

withdrew its intervention in 1982. Thus, more than a decade ago, the NRC took the action that is now being requested by CFUR. Therefore, CFUR's Request should be denied for this reason alone.

II. CFUR's Request For Action Does Not Satisfy The Requirements Of 10 C.F.R. § 2.206.

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CFUR does not cite any provision of the Commission's rules which authorizes the filing of its Request. Given the nature of CFUR's Request, it is probably best characterized as a request for action under 10 C.F.R. § 2.206. As discussed below, the Request does not satisfy the Commission's standards for granting 2.206 petitions and accordingly should be denied.

A 2.206 petition will only be granted if it raises "substantial health or safety issues;" a mere dispute over factual issues will not suffice. <u>Consolidated Edison Co. of New</u> <u>York</u> (Indian Point, Unit No. 1, Unit No. 2, Unit No. 3), CLI-75-8, 2 NRC 173, 176 (1975). "The factual basis of the petition should identify new information regarding the issue under consideration." <u>Public Service Co. of Indiana</u> (Marble Hill Nuclear Generating Station, Units 1 and 2), DD-79-21, 10 NRC 717, 719 (1979). Finally, as the D.C. Circuit stated in <u>Porter County</u> <u>Chapter of the Izaak Walton League of America, Inc. v. NRC</u>, 606 F.2d 1363, 1369 (D.C. Cir. 1979) in upholding an NRC decision rejecting a request for hearing submitted under Section 2.206:

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The agency is not bound to launch full-blown proceedings simply because a violation of the statute is claimed. It may properly undertake preliminary inquiries in order to determine whether the claim is substantial enough under the statute to warrant full proceedings. The appropriate agency official has substantial discretion to decline to initiate proceedings based on this review, at least where, as here, he gives reasons for denying or deferring a hearing.

(footnote omitted).

CFUR has not satisfied any of these standards. All of the information it cites is already known by the NRC. In fact, most of the cited information is contained in NRC documents that were issued many months, and in some cases many years, ago. Equally important, the issues CFUR seeks to raise as well as the information upon which it relies were previously addressed by the NRC in response to CFUR's previous 2.206 petitions. 2/

21 CFUR's Request does raise two issues that were not discussed in its previous 2.206 petitions. First, CFUR alleges that two Borg-Warner check valves in the Component Cooling Water System for CPSES Unit 2 failed during preoperational tests. (Request at 1). As discussed in TU Electric letter TXX-93003 (Jan. 20, 1993) to the NRC, the root causes of the failures were determined, the valves were reworked, and the valves have now been determined to be operating satisfactorily as a result of retests. TU Electric is currently taking action to ensure that other check valves are also operating properly. Second, CFUR alleges that Thermo-Lag was shipped to CPSES with voids and staples in voids. (Request at 2). As discussed in TU Electric letters to the NRC (TXX-92589 (Dec. 15, 1992) at 4-6; and TXX-92626 (Dec. 23, 1992), Encl. at 23) CPSES uses visual inspections and weight checks to detect any large internal voids in prefabricated Thermo-Lag panels. CPSES also uses visual inspections to detect delaminations (and staples used to press delaminated material together). CPSES tests of (continued...)

The Director's Decision's denying CFUR's 2.205 petition regarding Borg-Warner check valves, and the Director's Letter denying the emergency relief requested in NIRS's 2.206 petition, contradict CFUR's claim that these issues are "serious and outstanding issues of safety." $\underline{3}$ / (Request at 1.) The information regarding the Borg-Warner check valves provided by CFUR is essentially the same as the information that was held to be insufficient to support the institution of proceedings as requested by CFUR in its 1990 2.206 petition. After analyzing the information in the 2.206 petition, the Director of Nuclear Reactor Regulation concluded that no substantial health or safety issue was apparent:

> The Staff reviewed the complete text of all nineteen of the documents attached to the Petition as well as many additional documents regarding Borg-Warner check valves at the Comanche Feak Steam Electric Station. The documents relied upon by [CFUR] in support of the petition were existing NRC and Licensee documents. Based on its entire review, the <u>Staff has not found any substantial health</u> and safety issues that would call into question the continued safe operation of Comanche Peak Steam Electric Station.

- <u>2</u>/(...continued) Thermo-Lag provide reasonable assurance that material with undetected delaminations will perform as intended.
- 3/ No purpose is served by summarizing the Director's technical bases for the findings that the Borg-Warner check valves and the use of Thermo-Lag do not raise significant safety issues. TU Electric has attached copies of the Director's Decision and Letter which cogently describe the reasons for the decisions.

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. . . no basis exists for taking any action in response to the Petition as <u>no substantial</u> <u>health or safety issues have been raised</u> by the Petition.

Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 1), DD-91-5, 34 NRC 209, 227-28 (1991) (emphasis added).

Similarly, the concerns regarding the use of Thermo-Lag in the July 21, 1992, 2.206 petition and the August 12, 1992, addendum were found to be insufficient to warrant the emergency relief. The Director of Nuclear Reactor Regulation concluded that these concerns do not pose a substantial safety issue: <u>4</u>/

> The licensee can compensate for weaknesses found in one area by enhancing the protection capabilities in the remaining areas. ... Recent fire endurance testing ... confirmed that certain Thermo-Lag fire barrier configurations compromise one facet of the fire protection "defense-in-depth". The licensees established fire watches as a compensatory measure. ... Such actions constitute compliance with overall NRC fire protection requirements, provide an adequate level of protection, and <u>do not pose an undue</u> risk to the health and safety of the public.

> > * * *

The NRC Staff has concluded that the immediate suspensions of the operating licenses for River Bend Station, Comanche Peak Unit 1, Shearon Harris, Fermi-2, Ginna, WNP-2, and Robinson facilities are not warranted. The NRC Staff also determined

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<u>4</u>/ Letter from Thomas E. Murley, Director Office of Nuclear Reactor Regulation (NRC) to Michael Mariotte (NIRS), dated Aug. 19, 1992, pp. 3, 6.

that the issuance of a "stop-work" order or the suspension of the construction permit for Comanche Peak Unit 2 is not warranted. The NRC staff will, in the near future, issue the generic letter mentioned in the Petition. ... [T]he request to accelerate the issuance of the generic letter is not deemed necessary. Accordingly the request for emergency relief is denied. <u>5</u>/

In summary, CFUR's claim that there are significant outstanding safety issues relating to the Borg-Warner check valves or the use of Thermo-Lag is plainly meritless. The NRC has already fully and thoughtfully considered each of these issues and concluded that neither raises any undue risk to the health and safety of the public. CFUR's request that the Commission take further action should therefore be denied, and CFUR's letter should be referred to the NRC Staff for its consideration as the Staff completes its review of CFUR's 2.206 petition relating to Thermo-Lag. $\underline{6}/$

- 5/ On December 17, 1992, the NRC issued Generic Letter 92-08, entitled "Thermo-Lag 330-1 Fire Barriers." TU Electric provided the NRC with a response for CPSES Unit 2 in letter TXX-93038 (Jan. 19, 1993). The response concluded that the Thermo-Lag fire barrier systems installed in CPSES Unit 2 are qualified based upon the fire endurance tests and evaluations described in TU Electric letters TXX-92626 (Dec. 23, 1992) and TXX-93023 (Jan. 19, 1993).
- 6/ No plausible argument could be made that CFUR's Request should be considered a motion to reopen the record in the CPSES OL proceeding under 10 C.F.R. § 2.734(a). In order to meet the requirements of § 2.734(a), the moving party shoulders a heavy burden to demonstrate that its motion: (1) is timely; (2) involves a significant safety issue; and (3) offers evidence that would lead to a materially different result. Kansas Gas and Electric Co. (Wolf Creek (continued...)

CONCLUSION

More than a decade ago, the NRC issued a notice of hearing on the CPSES OL proceeding, and CFUR participated in those hearings until it voluntarily withdrew from the proceeding. CFUR's current request is nothing more than a thinly veiled attempt to avoid the consequences of its action. The request fails to raise any issue worthy of consideration by the Commission and it should, therefore, be denied.

Respectfully submitted,

Robert A. Wooldridge, Esq. Worsham, Forsythe, Sampels & Wooldridge 2001 Bryan Tower Suite 3200 Dallas, TX 75201 (214) 979-3000 George L. Edgar Thomae A. Schmutz Steven P. Frantz Paul J. Zaffuts Newman & Holtzinger, P.C. 1615 L. St, N.W. Washington, D.C. 20036 (202) 955-6600

Attorneys for TU Electric

January 25, 1993

6/(...continued)

Generating Station, Unit No. 1), ALAB-462, 7 NRC 320, 338 (1978); Louisiana Power & Light Co. (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1 (1986). CFUR cannot meet any of these requirements. The issues it seeks to raise and the supporting information are not new and thus its request is not timely. Nor can any argument be made that the request involves a significant safety issue. The NRC has already concluded directly to the contrary. Finally, in light of the NRC's previous conclusion that the Borg-Warner check valves and the use cf Thermo-Lag do not involve any significant safety issues, it clearly follows that the information CFUR seeks to introduce into the record would not cause a different result in the OL proceeding for CPSES Unit 2.

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

DOCKETED

In the Matter of

Docket No. 50-446-OL

Texas Utilities Electric Company

(Comanche Peak Steam Electric Station, Unit 2)

CERTIFICATE OF SERVICE

I hereby certify that copies of TU Electric's Response To CFUR's Request of January 13, 1993 were served upon the following persons by deposit in the United States Mail (except as indicated below), postage prepaid and properly addressed, on the date shown below:

> Office of the Secretary* U.S. Nuclear Regulatory Commission Washington, D.C. 20555

> > Attention: Chief, Docketing and Service Section (Original Plus Two Copies)

Thomas E. Murley, Director Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Charles Mullins Office of the General Counsel U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Marian L. Zobler, Esq. Office of the General Counsel U.S. Nuclear Regulatory Commission Washington, D.C. 20555

*Served by Hand

Betty Brink Board Member Citizens for Fair Utility Regulation 7600 Anglin Drive Fort Worth, TX 76140

Dated this 25th day of January, 1993.

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dr

Paul J. Caffuls Newman & Holtzinger, P.C. Suite 1000 1615 1 Street, N.W. Washington, D.C. 20036 (202) 955-6600



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

50-244

DEO

August 19, 1992

(10 CFR 2.206)

Mr. Michael Mariotte Executive Director Nuclear Information and Resource Service Suite 601 1424 16th Street, N.W. Washington, D.C. 20036

Dear Mr. Mariotte:

9208310185 920819 PDR 080 N988 PD

I am writing to acknowledge receiving a Petition filed by you on behalf of the Nuclear Information and Resource Service and other organizations (Petitioners) with the U.S. Nuclear Regulatory Commission (NRC) dated July 21, 1992, as supplemented by the addenda of August 12, 1992, pursuant to Section 2.206 of Title 10 of the Code of Federal Regulations (10 CFR 2.206). Joining with the Nuclear Information and Resources Service in filing the Petition are the Alliance for Affordable Energy, Citizens Organized to Protect our Parish, Citizens for Fair Utility Regulation, Don't Waste New York, Citizens Against Radioactive Dumping, Coalition for Alternatives to Shearon Harris, Conservation Council for North Carolina, Safe Energy Coalition of Michigan, Steve Langdon, Essex County Citizens Against Fermi-2, Natural Guard, and Northwest Environmental Advocates. The original Petition presented concerns regarding the use of Thermo-Lag 330 (Thermo-Lag) fire barrier material for protecting against fire in the nuclear industry and requested immediate actions related to Gulf States Utilities' River Bend Station. The addenda of August 12, 1992, requested immediate actions related to the Comanche Peak, Shearon Harris, Fermi-2, Ginna, WNP-2 and Robinson nuclear facilities. The Petition has been referred to my office for preparation of a response.

The Petition alleged a number of deficiencies with Thermo-Lag material including failure of Thermo-Lag fire barriers during 1- and 3-hour fire endurance tests, deficiencies in procedures for installation, nonconformance with NRC regulations for quality assurance and qualification tests, the combustibility of the material, ampacity miscalculations, the lack of seismic tests, the failure to pass hose stream tests, the high toxicity of substances emitted from the ignited material, and the declaration by at least one utility, the Gulf States Utilities Company (GSU) of the material as inoperable at its River Bend Station. The Petition also alleged that a fire watch cannot substitute for an effective fire barrier indefinitely and that the NRC staff has not adequately analyzed the use of fire watches.

RETURN TO RECULATORY CENTRAL FILES

August 19, 1992

Based on these allegations, the Petitioners request emergency enforcement action to immediately suspend GSU's operating license for the River Bend Station pending a demonstration that the facility meets NRC fire protection requirements. The Petitioners also request the NRC issue a generic letter by September 5, 1992, which would require licensees to submit information to the NRC demonstrating compliance with fire protection requirements. Where facilities cannot demonstrate compliance, the Petitioner requests immediate suspension of the operating licenses for the affected facilities until such time as compliance with NRC fire protection requirements can be shown. The scope of the Petition was expanded by addenda of August 12, 1992, which requested that the NRC immediately suspend the operating licenses for Comanche Peak Unit 1, Shearon Harris, Fermi-2, Ginna, WNP-2, and Robinson and to issue a "stop-work" order regarding the installation of Thermo-Lag at Comanche Peak Unit 2.

The NRC staff has examined the issues stated in the Petition. The NRC staff also addressed Thermo-Lag fire barrier concerns in Information Notices (IN) 91-47, "Failure of Thermo-Lag Fire Barrier Material to Pass Fire Endurance Test," IN 91-79, "Deficiencies in Procedures for Installing Thermo-Lag Fire Barrier Materials," IN 92-46, "Thermo-Lag Fire Barrier Material Special Review Team Final Report Findings, Current Fire Endurance Testing, and Ampacity Calculation Errors," IN 92-55, "Current Fire Endurance Test Results for Thermo-Lag Fire Barrier Material," and Bulletin 92-01, "Failure of Thermo-Lag 330 Fire Barrier System to Maintain Cabling in Wide Cable Trays and Small Conduits Free from Fire Damage."

In June 1991, the Office of Nuclear Reactor Regulation (NRR) established a special review team to investigate the safety significance and generic applicability of technical issues regarding allegations and operating experience concerning Thermo-Lag fire barriers at the River Bend Station. In the "Final Report of the Special Review Team for the Review of Thermo-Lag Fire Barrier Performance," which was an attachment to IN 92-46, the special review team made the following conclusions:

- The fire-resistive ratings and the ampacity derating factors for the Thermo-Lag 330-1 fire barrier system are indeterminate.
- Some licensees have not adequately reviewed and evaluated the fire endurance test results and the ampacity derating test results used as the licensing basis for their Thermo-Lag barriers to determine the validity of the tests and the applicability of the test results to their plant designs.
- Some licensees have not adequately reviewed the Thermo-Lag fire barriers installed in their plants to ensure that they meet NRC requirements and guidance such as that provided in Generic Letter 86-10, "Implementation of Fire Protection Requirements," April 24, 1986.
- Some licensees used inadequate or incomplete installation procedures during the construction of their Thermo-Lag barriers.

The Final Report, INs, and Bulletin are available for public inspection at the NRC's Public Document Room and Local Public Document Rooms.

The NRC staff has prepared an action plan to resolve technical issues on Thermo-Lag fire barrier systems. The action plan includes working with industry to identify the Thermo-Lag issues, coordinating efforts with the Nuclear Management and Resources Council (NUMARC) to resolve these issues, issuing inspection guidance to the NRC regional offices and conducting a testing program using small and large scale experiments to determine fire endurance performance and cable ampacity derating.

The NRC's "defense-in-depth" fire protection requirements rely on protecting safe shutdown functions by achieving a balance in (1) fi . prevention activities; (2) the ability to rapidly detect, control, and suppress a fire; and (3) physical separation of redundant safe shutdown functions. The licensee can compensate for weaknesses found in one area by enhancing the protection capabilities of the remaining areas. The NRC foresaw cases in which fire barriers would be inoperable and required licensees, through technical specifications or approved fire protection plans, to provide compensation for the deficient condition. The concept of allowing alternative actions to compensate for an inoperable condition or component is used in various programs associated with the operation of nuclear power plants and has always been an integral part of NRC regulatory requirements.

Recent fire endurance testing described in Bulletin 92-01 confirmed that certain Thermo-Lag fire barrier configurations compromise one facet of the fire protection "defense-in-depth". The licensees established fire watches as a compensatory measure. Personnel assigned to fire watches are trained by the licensees to inspect for the control of ignition sources and combustible materials, to look for signs of incipient fires, to provide prompt notifications of fire hazards and fires, and to take appropriate actions to begin fire suppression activities. Therefore, fire watches compensate for the degraded fire barriers by providing enhanced detection capability to find fire hazards and, in the case of a fire, initiating suppression activities before the barrier's ability to endure a fire is challenged.

NRC regulations, facility operating license conditions, technical specification action statements, and the generic communications described above address the establishment of either continuous or periodic fire watches to compensate for deficiencies in the licensee's fire protection program. The NRC staff has carefully evaluated the issues associated with using Thermo-Lag material, including the use of fire watches to compensate for any degradation in the effectiveness of required fire barriers. Such actions constitute compliance with the overall NRC fire protection requirements, provide an adequate level of protection, and do not pose an undue risk to the health and safety of the public.

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August 19, 1992

The Petitioners also make the legal argument that compliance with NRC requirements is necessary to ensure that licensed facilities operate safely. Licensees have implemented measures such as fire watches to compensate for the Thermo-Lag issues and have thereby ensured continued compliance with NRC requirements. It should be noted, however, that the failure to comply with a particular NRC requirement does not necessarily mean that there is no longer reasonable assurance of adequate protection of the public health and safety, particularly when the NRC staff has evaluated the area of alleged noncompliance and found that it does not pose an undue risk to the public health and safety.

On October 26, 1989, the licensee for the River Bend Station declared all Thermo-Lag fire barriers inoperable after an unsuccessful fire endurance test. The licensee immediately established fire watch patrols in compliance with the compensatory action required by the plant's technical specifications. These fire watch patrols have been in continuous operation since October 1989. The NRC staff has found compensatory actions, such as fire watches, continue to provide adequate protection of the public health and safety. Therefore, the NRC staff has concluded that the start-up of the River Bend Station from the current refueling outage need not be prohibited due to the issues related to Thermo-Lag fire barriers.

TU Electric also began a fire endurance testing program to qualify Thermo-Lag fire barrier systems for the Comanche Peak Steam Electric Station. Upon reviewing the results of the testing program, the licensee adjusted Unit 1 fire watch routes as a compensatory action on June 18, 1992. In Bulletin 92-01, the NRC staff discussed the testing sponsored by TU Electric and requested all licensees to identify the plant areas in which Thermo-Lag is installed and implement compensatory actions consistent with an inoperable fire barrier if Thermo-Lag was being used to protect wide cable trays or small conduits. The NRC staff found compensatory actions such as fire watches to be adequate.

The NRC staff and representatives of TU Electric have discussed the continued installation of Thermo-Lag at Comanche Peak Unit 2. The installation of Thermo-Lag in those configurations for which the licensee has high confidence that existing or planned testing will verify operability is a discretionary decision by TU Electric, i.e., it is undertaken at the applicant's risk that the Thermo-Lag will be found to not satisfy its performance requirements. In reviewing the application for an operating license for Unit 2, the NRC staff will ensure that issues related to Thermo-Lag at Comanche Peak Unit 2 are sufficiently resolved to ensure adequate protection of the public and health and safety. Therefore, the NRC does not find it necessary to issue an order to stop the continued installation of Thermo-Lag at Comanche Peak Unit 2 or to suspend the facility's construction permit.

August 19, 1992

The remaining facilities addressed by the Petition, Shearon Harris, Fermi-2, Ginna, WNP-2, and Robinson, were identified by the Petitioners as having installed Thermo-Lag in fire wall configurations. The Petitioners cite IN 92-55 as a basis for determining that the use of Thermo-Lag for this application results in the licensees being out of compliance with NRC regulations. In their responses to Bulletin 92-01, Rochester Gas and Electric and Carolina Power and Light, the licensees for Ginna and Robinson, stated that Thermo-Lag was not installed in those facilities. Based upon this information, no action with respect to Ginna or Robinson is warranted. The responses to Bulletin 92-01 for Shearon Harris, Fermi-2, and WNP-2 included descriptions of the compensatory actions taken regarding the use of Thermo-Lag to protect electrical cable trays and conduit.

The NRC staff recognizes that the performance of Thermo-Lag panels and other configurations not yet tested may not satisfy original design basis requirements. The staff considers the relative safety significance to be low for those applications of Thermo-Lag not addressed by Bulletin 92-01 and for which a definitive demonstration of effectiveness is not yet available. This initial assessment is based on the factors discussed in this letter which include the protection provided by other aspects of fire protection programs, such as detection and suppression capabilities, and the expected conditions associated with a real nuclear plant fire. In an actual fire situation, the fire resistance required of a barrier depends on the expected severity of the fire to which it is exposed. Typical nuclear plant fire loads are not great enough to produce a fire approaching the severity of a test fire. An actual fire at a nuclear power plant would yield a much slower temperature rise than did the test fire. Moreover, although the fire resistance ratings of certain Thermo-Lag fire barriers are considered indeterminate, the NRC staff has evidence that the barriers will provide some level of fire protection. In addition, most plant areas have controlled ignition sources, which helps reduce the occurrences of fires, and are equipped with other passive and active fire protection features which contribute to early fire detection and suppression activities. Therefore, the NRC has concluded that the Thermo-Lag fire barrier concerns being addressed by its staff and industry do not pose an immediate threat to public health and safety and does not find it necessary to suspend the operating licenses for Shearon Harris, Fermi-2, or WNP-2 facilities.

The NRC will perform additional small-scale tests at the National Institute of Standards and Technology (NIST) and will continue to assess the significance of its findings. However, the small-scale tests similar to those described in IN 92-55 are not qualification tests. Although the tests will give valuable insight into the thermodynamic behavior of the Thermo-Lag fire barrier material itself, they cannot be used in and of themselves to determine the fire resistance ratings of the various Thermo-Lag fire barrier systems. If testing sponsored by the NRC, an individual licensee, or an industry organization finds a configuration or application which might compromise the safe shutdown capability, the NRC will immediately take appropriate actions.

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The Petition alleges that Thermo-Lag emits extremely high amounts of hydrogen cyanide gas which could overcome fire watch personnel while performing their duty. NIST performed tests for the NRC staff in which it demonstrated that the products of the combustion of Thermo-Lag do not include high amounts of hydrogen cyanide. Fires in nuclear power plants would be expected to emit toxic gases from a variety of combustible sources and it has been determined that Thermo-Lag does not introduce unique concerns regarding either the quantity or composition of toxic materials. The NIST testing determined that the products of combustion of Thermo-Lag are comparable in toxicity to the burning of Douglas Fir lumber. Fire watches can perform their function of finding fires, notifying appropriate response personnel, and beginning fire suppression activities without sacrificing personal safety, including not being overcome by smoke and toxic gases. In addition, fire fighters and other utility personnel trained for fire brigades are taught proper techniques for fighting fires, including the use of self-contained breathing apparatus, when toxic gases are present.

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The Petitioners have requested that the NRC issue a generic letter which addresses the various issues associated with the use of Thermo-Lag fire barriers. The NRC staff has not completed its processing of the draft generic letter 92-XX, "Thermo-Lag Fire Barriers," of February 11, 1992 in accordance with the staff's action plan and the Commission's policy and procedures, which call for a public comment period and a thorough analysis of the current regulatory requirements and the effect of any new requirements. Upon completing this process, the NRC will issue the final generic letter to all holders of operating licenses and construction permits for nuclear power reactors. During an August 12, 1992, public meeting with NUMARC, the NRC staff stated that it had considered the comments it had received on the draft letter, that it was preparing the final letter in accordance with the action plan, and that it assigned a high priority to issuing the letter. The NRC will issue the final generic letter in the near future.

The NRC staff has concluded that the immediate suspensions of the operating licenses for River Bend Station, Comanche Peak Unit 1, Shearon Harris, Fermi-2, Ginna, WNP-2, and Robinson facilities are not warranted. The NRC staff also determined that the issuance of a "stop-work" order or the suspension of the construction permit for Comanche Peak Unit 2 is not warranted. The NRC staff will, in the near future, issue the generic letter mentioned in the Petition. Issuance of the generic letter will be in accordance with the staff's action plan and the Commission's policy and procedures and, therefore, the request to accelerate the issuance of the generic letter is not deemed necessary. Accordingly, Petitioners' request for emergency relief is denied. - 7 -

August 19, 1992

Mr. Mariotte

As provided by 10 CFR 2.206, the NRC will take appropriate action on the specific issues raised in the Petition within a reasonable time. I have enclosed a copy of the notice that is being filed with the Office of the Federal Register for publication.

Sincerely,

Original Signed By

Thomas E. Murley, Director Office of Nuclear Reactor Regulation

8/18/42

Enclosure: Notice

Office	PDIV-2/LA	PDIV-2/PM	PDIV-2/D	TECH ED*	NRR: DSTAT	OGC JAZ
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retary of the Commission C.F.R. § 2.206(c).

NUCLEAR ATORY COMMISSION

Murley, Director Juclear Reactor on UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Thomas E. Murley, Director

In the Matter of

Docket No. 50-445

TEXAS UTILITIES ELECTRIC COMPANY (Comanche Peak Steam Electric Station, Unit 1)

September 27, 1991

The Director, Office of Nuclear Reactor Regulation, denies a Petition filed by Ms. Betty Brink requesting that a proceeding be instituted to determine if the operating license issued to Texas Utilities Electric Company (TU Electric) for the Comanche Peak Steam Electric Station, Unit 1, should be revoked, modified, or suspended. As bases for the request, the Petitioner asserts concerns regarding the continued failure of Borg-Warner check valves at Comanche Peak and the failure of TU Electric to take adequate corrective actions to resolve these checkvalve failures.

RULES OF PRACTICE: SHOW-CAUSE PROCEEDINGS

The NRC will not institute a show-cause proceeding where the petition fails to raise any substantial health or safety issue.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

I. INTRODUCTION

On November 20, 1990, Ms. Betty Brink (the Petitioner) filed a request (the Petition) with the Executive Director for Operations in accordance with section 2.206 of Title 10 of the Code of Federal Regulations (10 C.F.R. § 2.206)

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on behalf of the Citizens for Fair Utility Regulation (CFUR) for action to be taken regarding the Comanche Peak Steam Electric Station. Specifically, CFUR requested that a proceeding be instituted or such other action as may be proper to determine if the operating license for the Comanche Peak Steam Electric Station should be revoked, modified, or suspended. The Petition argued that "issues of safety" exist at Comanche Peak Steam Electric Station, based on CFUR assertions that (1) Borg-Warner check valves continue to fail and have never been able to perform their design function at the Comanche Peak Steam Electric Station; (2) the safety of certain Borg-Warner check valves installed at Comanche Peak is questionable because of the use of internal parts in the valves from suppliers who were not adequately qualified and the possible use of questionable replacement parts; (3) the Texas Utilities Electric Company (the Licensee) failed to take adequate corrective actions to resolve the Borg-Warner check valve failures at the Comanche Peak Steam Electric Station; (4) the competence and integrity of the Texas Utilities Electric Company's management is questionable; and (5) there was a failure to provide adequate documentation regarding the adequacy of the Borg-Warner check valves at the Comanche Peak Steam Electric Station.

In my letter of December 24, 1990, I acknowledged receipt of the CFUR Petition and stated that the U.S. Nuclear Regulatory Commission (NRC) would take action on the Petitioner's request within a reasonable time. I have now completed my evaluation of the CFUR Petition. I have determined, for the reasons set forth below, that no adequate basis exists to institute a proceeding, or for other such action to revoke, modify, or suspend the license for the Comanche Peak Steam Electric Station, Unit 1.

II. BACKGROUND

In support of the request the Petitioner cites a series of events involving Borg-Warner check valves that have occurred at Comanche Peak. The Petitioner used these events, described below, to identify a number of the issues in the Petition.

During hot functional testing performed before the plant was licensed, two events (one on April 23, 1989, and another on May 5, 1989) occurred at the Comanche Peak Steam Electric Station involving the flow of feedwater back through Borg-Warner check valves installed in the auxiliary feedwater (AFW) system. During these events, manual isolation valves were operated concurrently when they should have been operated sequentially. This action resulted in secondary system water flowing from the steam generators through stuck open Borg-Warner check valves in the AFW system to the condensate storage tank. During subsequent evaluations, both the Licensee and the NRC Staff found that the bonnet-disc assemblies in the Borg-Warner check valves in the AFW system had

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of events involving Borg-Peak. The Petitioner used the issues in the Petition. plant was licensed, two 5, 1989) occurred at the flow of feedwater back xiliary feedwater (AFW) ere operated concurrently This action resulted in ators through stuck open condensate storage tank. the NRC Staff found that alves in the AFW system had been improperly adjusted in the vertical elevation. This improper adjustment had allowed the discs to lodge under the upper seat surface such that the valves could not fully close. The NRC sent an Augmented Inspection Team (AIT) to independently investigate the events and determine the root causes.

During the evaluations following these two events, the investigators found that a swing arm (used in the check valves to connect the valve disc to the bonnet) had failed in a Borg-Warner check valve in the Station Service Water System. This failure raised concerns regarding use of commercial-grade parts in safety-related systems. Responding to this concern, the NRC inspected BW/IP International, Incorporated, the supplier of the Borg-Warner check valves to Comanche Peak. The inspection was conducted in September 1989, and the report was issued on January 12, 1990.

On January 5, 1990, during postwork testing at Comanche Peak Steam Electric Station Unit 1, the Licensee radiographed Borg-Warner check valves installed in the steam supply to the turbine-driven AFW system and found one valve with its disc lodged under the seat, while one other valve disc was laying off, but not lodged under, the seat.

In April and May 1990, during the startup test program after licensing and before commercial operation, feedwater flowed back through the Borg-Warner check valves in the AFW system on three separate occasions. The Licensee subsequently performed tests and found that the feedwater had flowed back through the check valves because of low differential pressure across the check valves. The Licensee found that the check valves were not stuck open.

An additional event involving Borg-Warner check valves occurred on April 19, 1991, which was after the Petition was filed. The event involved one of the Borg-Warner check valves in the AFW system at Comanche Peak Steam Electric Station that stuck open during testing of a downstream motor-operated isolation valve. This testing was conducted while the plant was shut down for a maintenance outage. The Petitioner was informed of the event by the NRC Staff.

III. DISCUSSION

The basis for the Petitioner's request is its assertion that the information cited in nineteen documents, attached to the Petition, identifies a wide range of "issues of safety" at the Comanche Peak Steam Electric Station, including the following: (1) check valves continue to fail and have never been sble to perform their design function at the Comanche Peak Steam Electric Station; (2) certain Borg-Warner check valves installed at the Comanche Peak Steam Electric Station are of questionable safety because they contain internal parts from suppliers who were not adequately qualified and possibly include questionable replacement parts; (3) the Licensee failed to take adequate corrective actions to resolve the Borg-Warner check valve failures at the Comanche Peak Steam Electric Station; (4) the competence and integrity of the Licensee's management is questionable; and (5) adequate documentation was not provided to support the adequacy of the Borg-Warner check valves at the Comanche Feak Steam Electric Station. The NRC will also address a number of miscellaneous issues raised in CFUR's Petition.

The NRC Staff acknowledges that the performance of Borg-Warner check valves installed in Comanche Peak has been poor. Our inspection program and operations evaluation program are aimed at finding such poor equipment performance problems and requiring the Licensee to take corrective actions. These regulatory processes have been followed by the Staff in the case of Comanche Peak, and the results are discussed in the following sections.

Each of the specific issues raised by the Petitioner is characterized below, followed by the Staff's evaluation.

A. Check Valves Continue to Fail and Have Never Been Able to Perform Their Design Function

The Petitioner contended that the check valves have leaked on three different occasions: April and May of 1989 during hot functional testing at Comanche Peak Steam Electric Station Unit 1; on January 5, 1990, before licensing; and, in April and May 1990, during the startup test program. The Petitioner claimed that the continued leakage indicates that the check valves have failed and continue to be jammed open in such a way that they are unable to perform their design function. The Petitioner also stated a concern regarding ongoing disassembly of Borg-Warner check valves at the Comanche Peak Steam Electric Station to correct the leaking.

In addressing this contention, a brief explanation of the safety function¹ of check valves is helpful. Piping systems often have multiple branches that supply liquid or vapor to other components in the plant (such as tanks, heat exchangers, steam generators, and the reactor vessel). Check valves are installed in these piping systems to prevent the liquid or vapor from one of the branches from flowing backwards through another branch of the piping system while the system operates. This design ensures that the liquid or vapor will continue to flow to the component being supplied in sufficient quantity for the supplied component to

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² The Licensee

¹ The Petitioner refers to the "design function" of check valves. Check valves have several design functions, including allowing forward flow and preventing reverse flow. The Staff is primarily concerned with the safety functions of check valves, in line with its responsibility to ensure the public health and safety. In addition, the Potition deals with issues that relate to the safety function of the Borg-Warner check valves, and not the entire scope of design functions. The Staff will, because of the two sforemensioned reasons, only address the safety function of the Borg-Warner check valves in its response.

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s have several design functions, narily concerned with the safety calth and safety. In addition, the check valves, and not the entire reasons, only address the safety perform its own safety function. When a check valve cannot prevent sufficient backflow during system operation to ensure that supplied components have adequate flow to perform the supplied components' safety function, the check valve is considered to have failed to perform its safety function.

The Petitioner contends that the events that occurred in April and May 1989 during hot functional testing of the Comanche Peak Steam Electric Station, Unit 1, were the result of failures of Borg-Warner check valves. The Staff also considers these two events to be related to failures of Borg-Warner check valves. However, these problems with the Borg-Warner check valves were found and corrected during the testing program before the plant received its license or began to operate. These problems, therefore, did not present a safety concern.

In NRC AIT Report 50-445/89-30, 50-446/89-30 of July 10, 1989, the Staff discussed the root causes and contributing factors for the failure of the Borg-Warner check valves in April and May 1989. Two significant issues raised in this report concerning the check valve failures were (1) the root cause of the valve disc jamming under the valve seat as a result of vertical misalignment of the check valve disc because of inadequate maintenance procedures, and (2) a lack of postmaintenance testing to ensure that the Borg-Warner check valves, when reassembled, would perform their safety function before the associated system is placed back into operation, a contributing cause to the failure of the check valves. The Licensee's corrective actions in response to these issues were stated in letters to the NRC, TXX-895962 of August 18, 1989, and TXX-89744 of October 14, 1989. The Licensee revised the reassembly procedures for Borg-Warner check valves and provided for postwork testing of Borg-Warner check valves. In addition, to ensure that the check valves were aligned properly and could perform their safety function, the Licensee tested all Borg-Warner check valves in the Comanche Peak Steam Electric Station, Unit 1, and common systems, using either reverse-flow testing (which ensures that the check valves prevent a sufficient amount of backflow) or radiography. The Licensee performed these corrective actions to provide assurance that, following work on Borg-Warner check valves, any problems are identified and corrected before the affected system is restored to service.

The Staff reviewed and evaluated the Licensee's actions specified in the referenced letters. The Licensee's actions were found to be appropriate and effective in providing reasonable assurance that the Borg-Warner check valves will perform their safety function. As a result of these corrective actions, no Borg-Warner check valve has failed to perform its safety function with its associated system in service during plant operation. The Staff has documented its evaluations in Inspection Reports (IR) 50-445, 50-446/89-30, 89-52.

² The Licensee uses this numbering scheme to idensify correspondence.

89-71, 89-73, 90-03, and 90-09. Areas of inspection included witnessing the testing, corrective maintenance and reassembly of Borg-Warner check valves, and performing followup inspections on open items resulting from the AIT report. Based on the NRC inspections and the Licensee's corrective actions, the Staff has determined that the Licensee has adequately addressed the root causes of the April and May 1989 events.

The Petitioner contends that the January 1990 event also indicated a failure of Borg-Warner check valves to perform their safety function. This event occurred while the Licensee was conducting postmaintenance radiography as part of the corrective action program resulting from the April and May 1989 events. The Licensee found two Borg-Warner check valves in the main steam supply to the turbine-driven AFW system in abnormal configurations. The abnormal configurations could have rendered one of the valves inoperable, which indicates that the valve may not have performed its safety function if the plant had been licensed and operating. In June 1989, the Licensee had performed maintenance on this valve, but had not conducted the postmaintenance testing until January 1990. The Staff considers this event to be an extension of the April and May 1989 events, since the Licensee found the abnormal conditions as part of the corrective actions to verify before plant licensing that all Borg-Warner check valves were aligned properly and could perform their safety function, as described above. The Licensee evaluated this event, as documented in Technical Evaluation WC-90-79 (described in Staff IR 50-445, 446/90-03). and determined that forward- and reverse-flow testing, and radiographic testing, of all Borg-Warner check valves verified that the remaining Borg-Warner check valves would not exhibit the same problem. In Staff IR 50-445, 446/90-09, the Staff documented its evaluation of the Licensee's actions and noted that the two valves found in the abnormal configurations had been disassembled, inspected, reassembled, and successfully air tested in the reverse-flow direction. Based on the information in IR 50-445, 446/90-09, the Staff found that the Licensee's corrective action for this event was adequate to ensure that the two affected Borg-Warner check valves would perform their safety function during plant operation.

The Petitioner contended that the April and M_{7} 1990 events, involving leakage back through Borg-Warner check valves in the AFW system, also indicated a failure of Borg-Warner check valves to perform their safety function. In the Licensee's letters TXX-90172 of April 27, 1990, and TXX-90188 of May 18, 1990, the Licensee stated that the leakage through the AFW check valves was minor, and that there was assurance the AFW check valves would perform their safety function because of the required surveillance testing and rework with postwork testing conducted during the transition from operational Modes 6 through 1. In addition, the Licensee conducted tests and monitored the temperature of the AFW piping to quantify the leakage rates across the AFW

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lso indicated a failure function. This event nance radiography as April and May 1989 es in the main steam configurations. The lves inoperable, which y function if the plant ensee had performed stmaintenance testing e an extension of the abnormal conditions censing that all Borgperform their safety event, as documented R 50-445, 446/90-03). d radiographic testing. ig Borg-Warnet check R. 45, 446/90-09. ctions and noted that id been disassembled. reverse-flow direction. : Staff found that the to ensure that the two safety function during

990 events, involving ie AFW system, also in their safety function.), and TXX-90188 of ough the AFW check W check valves would inveillance testing and ition from operational lests and monitored the rates across the AFW check valves. As a result, the Licensee found that the check valves had not hung open. The Licensee concluded that the check valves would perform their primary safety function of stopping backflow during an upstream pipe break. The Licensee did consider these events to be an operational concern because actions were required by the operators to minimize the heating of AFW piping caused by the AFW check valve leakage during plant startups. The Licensee subsequently modified the Borg-Warner check valves in the AFW system to reduce the operational effect on the operators, by adding a counterweight to the disc to enhance the seating characteristics of the valve.

The Staff has reviewed and evaluated the Licensee's assertions and corrective actions stated in the referenced letters. The Staff agrees with the Licensee's assessment that the backleakage through the check valves in the AFW system during the April and May 1990 events was minor. Based on NRC inspection reports, the Staff considers the Licensee's corrective actions appropriate to address the operational concerns. The Staff documented its inspections in IRs 50-445, 446/90-13, 90-19, 90-22, and 90-45. The Staff inspected the test program to quantify reverse flow through the AFW check valves and evaluated the safety implications of the April and May 1990 events. Based on NRC inspections, the Staff determined that the minor backleakage has had no adverse effect on AFW system operability³ and does not affect the safety function of the valves.

The Petitioner also cited a general concern regarding ongoing disassembly of Borg-Warner check valves at the Comanche Peak Steam Electric Station to correct the leakage problems. The Petitioner cites as a Staff concern, stated in the AIT Report (NRC IR 50-445, 446/89-30), that disassembly and reassembly of Borg-Warner check valves may have contributed to the problems during hot functional testing.

The Licensee evaluated this issue and determined that the practice or frequency of disassembling check valves to allow their use as flush and drain paths, which was the actual concern identified by the AIT, did not contribute to the failure of the Borg-Warner check valves. In the Licensee's response to the AIT, they stated that the failures of the Borg-Warner check valves resulted instead from inadequate installation procedures. The Licensee documented its response to this issue in a Texas Utilities Electric Company memorandum, CPSES-9001379 (discussed in NRC IR 50-445, 446/90-03).

The Staff reviewed and evaluated the Licensee's response to this issue. The Staff documented its inspections in IRs 50-445, 446/89-30, 89-73, and 90-03. The Staff agreed with the Licensee's evaluation that the frequency

³ "Operability" is defined in the Comanche Peak Steam Electric Station Technical Specifications as the ability of a system, subsystem, train, component, or device to perform its specified function(s).

of disassembly of Borg-Warner check valves did not contribute to the AFW backflow events.

The April 18, 1991 event (an event that occurred after receipt of the Petition) involved one of the eight Borg-Warner check valves in the AFW system. The check valve involved was in the flow path used to conduct Motor-Operated Valve Testing (MOVAT) of an isolation valve downstream of the affected Borg-Warner check valve. The Licensee submitted a Licensee Event Report (LER) of May 21, 1991, that documented its analysis, evaluation, and corrective actions.

After testing a downstream motor-operated valve (MOV) during a maintenance outage, the Licensee conducted reverse-flow testing of the associated AFW Borg-Warner check valve, in accordance with its corrective action program for the 1989 events. During the reverse-flow testing, the Licensee identified excessive reverse flow through the check valve. The Licensee radiographed the check valve and determined that the valve was stuck fully open with the disc fully raised. This deficient condition is different from the failures of Borg-Warner check valves identified in April and May 1989, when the disc was jammed under the valve seat. In addition, the Licensee found the April 18, 1991, condition during postwork testing of a specific valve, and not during an integrated functional test as was the case during the April and May 1989 events. After disassembling the valve, the Licensee discovered that the counterweight, installed to improve the seating characteristics of Borg-Warner check valves, had become lodged above a casting remnant,4 causing the failure during reverse-flow testing. The Licensee disassembled and inspected the other seven check valves in the AFW system, and none of the other valves had this casting remnant. The Licensee removed and inspected the remnant, reassembled the valve, and successfully forward-flow- and reverse-flow-tested the valve. To verify that no other failure mechanism contributed to this event, the Licensee tested the other AFW isolation valves in a manner similar to the tests of MOVs that initiated the event. The Licensee also conducted reverse-flow testing on all eight AFW check valves to ensure that the valves would perform their safety function before restoring the AFW system to operation.

The Staff has evaluated this event and documented its review in IR 50-445, 446/91-14. The Staff concluded that because the AFW piping was not observed to have an elevated temperature before the maintenance outage, it is unlikely that the Borg-Warner check valve with the casting defect was lodged open before the Licensee tested the MOVs. Therefore, it is likely that the affected Borg-Warner check valve would have performed its safety function in the operating period before the maintenance shutdown. Furthermore, the Licensee identified the condition during postwork testing that was performed as a result of the corrective

action program program enat before returni The NRC events cited t condition iso indication of check valves. In summa of Borg-Warn Staff also as: April and M The Staff ha: raised by the or safety issu

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⁴This casting remnant was an approximately ¹/3-inch-wide ridge left on the value throat at the upper part of the disc cavity following value manufacture.

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s review in IR 50-445, ping was not observed nage, it is unlikely that lodged open before the affected Borg-Warner in the operating period licensee identified the result of the corrective

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action program implemented to address the 1989 failures. This corrective action program enabled the Licensee to identify the deficient condition and correct it before returning to operation after the maintenance shutdown.

The NRC Staff also evaluated this event in the context of the preceding events cited by the Petitioner. This most recent event resulted from a deficient condition isolated to one Borg-Warner check valve, and therefore provides no indication of a generic deficiency in the design or manufacture of Borg-Warner check valves.

In summary, the NRC Staff inspected the Licensee's maintenance and testing of Borg-Warner check valves at the Comanche Peak Steam Electric Station. The Staff also assessed the Licensee's corrective actions in response to the events in April and May 1989, January 1990, April and May 1990, and April 19, 1991. The Staff has concluded that the Licensee has satisfactorily addressed the issues raised by the Petitioner and that these issues do not present a substantial health or safety issue.

B. The Questionable Safety of Borg-Warner Check Valves Because of Internal Parts from Suppliers Not Adequately Qualified

The Petitioner contends that questions exist regarding the safety of Borg-Warner check valves at the Comanche Peak Steam Electric Station because of certain swing arms that may be installed in the Borg-Warner check valves. The Petitioner cites as evidence the problems found by the NRC duritg a vendor inspection at BW/IP International, Incorporated, in September 1989, and reported in IR 99900030/89-01 of January 12, 1990.

The NRC inspected BW/IP as a result of the failure of a swing arm in the service water system at the Comanche Peak Steam Electric Station and the Licensee's subsequent filing of a construction deficiency report in accordance with 10 C.F.R. § 50.55(e) for the failed Borg-Warner check valves in April and May 1989. The inspection determined that BW/IP activities failed to meet certain NRC requirements and BW/IP procedures. In particular, in IR 99900030/89-01, the Staff found that BW/IP did not adequately document the qualification of certain swing arms installed in Borg-Warner check valves. However, since TU Electric remains responsible for safety-related equipment at Comanche Peak, independent of Staff activities at BW/IP, the Licensee developed a test program to evaluate the acceptability of the swing arms installed in Borg-Warner check valves at the Comanche Peak Stearn Electric Station. The Licensee's program, described in TXX-89596 of August 18, 1989, with modifications and additional details provided in TXX-89860 of December 20, 1989, involved testing conducted by APTECH Engineering Services, Inc., on all Borg-Warner check valves installed in the Comanche Peak Steam Electric Station, Unit 1, and common systems to determine if the swing arms are suitable for use in safety-related systems. During the test program, some of the swing arms that were manufactured using a sandcasting method were found unacceptable and were replaced with swing arms manufactured using investment-casting methods. The investment-cast swing arms successfully passed the required tests and inspections for unrestricted operation. All replacement sand-cast swing arms installed in Unit 1, including some swing arms from Unit 2, were also tested using the APTECH test program. APTECH found these sand-cast swing arms to be suitable for use in safetyrelated systems for at least three fuel cycles. The Licensee committed, in letters TXX-90139 of April 9, 1990, and TXX-90149 of April 12, 1990, to replace all sand-cast swing arms with investment-cast swing arms, procured with acceptable quality assurance programs, before starting up from the third refueling outage.

The Staff roviewed and evaluated the Licensee's testing program and replacement of sand-cast swing arms and found that the program is appropriate for determining the suitability of swing arms for use in safety-related systems. The Staff also found that there is reasonable assurance that the remaining sand-cast swing arms are acceptable for three fuel cycles. The NRC Staff inspections are documented in IR 50-445, 446/89-30, 89-64, 89-73, and 90-22. The Staff found the Licensee's program to evaluate the continued use of sand-cast swing arms acceptable as documented in NUREG-0797, "Safety Evaluation Report Related to the Operation of Comanche Peak Steam Electric Station, Units 1 and 2," Supplement No. 24, April 1990. The Staff concluded in the Safety Evaluation Report that the Licensee's commitment to replace all sand-cast swing arms with investment-cast swing arms was appropriate.

The Staff reviewed the programs for testing and replacing the swing arms in Borg-Warner check valves. The Staff concluded that the Licensee satisfactorily addressed the issues raised by the Staff and cited by the Petitioner. Therefore, these issues do not present a substantial health or safety issue. Subsequent to the filing of this Petition, the Licensee discussed, at a public meeting held on June 12, 1991, in Rockville, Maryland, their technical bases for a finding that the sand-cast swing arms in Borg-Warner check valves are acceptable for longterm operation. The Licensee subsequently submitted its detailed justification by letter dated June 21, 1991 (TXX-91229), based on extensive testing conducted by Southwest Research Institute on arms removed from Comanche Peak Steam Electric Station Unit 1 and common-system Borg-Warner check valves. The NRC Staff concluded that the sand-cast Borg-Warner check valve swing arms still installed in Comanche Peak Steam Electric Station Unit 1 and common systems are acceptable for long-term service. This conclusion, documented in NRC letter dated September 16, 1991, is based on examination of actual material properties of sand-cast swing arms removed from service from Borg-Warner check valves during the APTECH testing described above, which demonstrated that the unaccept

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The 1 initial p Petition The Peti on AFW The] noticed i the pote above) f The Stat detennir event L9 letter of made cl-1989 ev. The] and Jani response and eva actions (Peak Su to addre correctiv 18, 1989 **TXX-90** April 27 TXX-90 The 5 identifie Peak St. adequate its evalu 90-03.9

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that the criteria used during the APTECH testing adequately screened out unacceptable swing arms.

C. Texas Utilities Electric Company Failed to Take Adequate Corrective Actions to Resolve the Borg-Warner Check Valve Failures

The Petitioner contends that the NRC objected to most of the Licensee's initial plans to correct the check valve problem before loading the fuel. The Petitioner cited an October 27, 1989 NRC report's as containing these objections. The Petitioner then cited a specific Staff concern regarding testing methods used on AFW piping that the NRC identified in a letter of September 14, 1989.

The NRC issued the October 27, 1989 letter to notify the Licensee of a noticed meeting and enforcement conference. The enclosure to this letter listed the potential violations of NRC requirements identifie the AIT (discussed above) for problems that led to the check valve failures in April and May 1989. The Staff viewed the May 1989 event as nearly identical to the April event and determined that the Licensee's ineffective corrective actions following the April event could justify the issuance of a Notice of Violation (NOV). In the Staff's letter of January 25, 1990, which attached the NOV that followed, the Staff made clear that the Licensee's corrective actions taken in response to the April 1989 event should have prevented recurrence of the May 1989 event.

The Petitioner is correct in stating that the Staff letters of October 27, 1989, and January 25, 1990, document the Licensee's ineffective corrective actions in response to the April 1989 event. However, the Staff has subsequently reviewed and evaluated the overall issue of the adequacy of the Licensee's corrective actions to correct the problems with Borg-Warner check valves at the Comanche Peak Steam Electric Station. The Licensee has taken extensive corrective action to address the Borg-Warner check valve issues. The Licensee documented these corrective actions in letters TXX-89424 of June 19, 1989; TXX-89596 of August 18, 1989; TXX-89744 of October 14, 1989; TXX-89849 of December 21, 1989; TXX-90139 of April 9, 1990; TXX-90149 of April 12, 1990; TXX-90172 of April 27, 1990; TXX-90188 of May 18, 1990; TXX-90215 of June 18, 1990; TXX-90253 of July 27, 1990; and TXX-91076 of March 22, 1991.

The Staff has reviewed and evaluated the Licensee's responses to all the issues identified following the failures of Borg-Warner check valves at the Comanche Peak Steam Electric Station and has concluded that the Licensee has taken adequate corrective actions to resolve these issues. The Staff has documented its evaluations in IRs 50-445, 446/89-30, 89-52, 89-64, 89-71, 89-73, 89-75, 90-03, 90-09, 90-13, 90-19, 90-22, 90-45, and 91-05.

⁵The cited reference is not a "report," in that it does not deach. a separate inspection or findings, but is a letter identifying potential violations based on a prior inspection report.

The Petitioner takes exception to the Staff's ultimate acceptance in IR 50-445, 446/90-03 of the Licensee's use of ultrasonic inspections to verify that no plastic deformation occurred in AFW piping. The Petitioner's exception was based on the Staff's concern expressed in the Staff's September 14, 1989 letter that changes in piping (the specific type referred to by the Licensee as "plastic deformation") cannot be determined without knowing the original configuration of the piping. In response to this Staff concern, the Licensee revised its use of ultrasonic and radiographic testing to ensure that the piping met minimum thickness requirements and that no deteriorative damage had occurred. The Licensee provided its description of this approach in TXX-89744, of October 14, 1989.

The Staff has reviewed and evaluated the Licensee's evaluations and inspection program for identifying any damage to the AFW piping at the Comanche Peak Steam Electric Station, Unit 1. The Staff considers the Licensee's evaluations and inspection program sufficient to determine the adequacy of the AFW piping for the remainder of plant life. The Staff documented its inspections of the issue of AFW piping damage raised by the Petitioner in IRs 50-445, 446/89-30, 89-73, 89-75, and 90-03.

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The Staff reviewed the adequacy of the Licensee's corrective action with regard to the Borg-Warner check valve failures and has concluded that the issues raised by the Petitioner have been satisfactorily addressed by the Licensee and do not present a substantial health or safety issue.

D. The Questionable Competence and Integrity of Texas Utilities Electric Company's Management

The Petitioner contends that serious questions are raised about the competence and integrity of the Licensee's officials and their commitment to the safe operation of a nuclear facility. The Petitioner bases the contention on the following two assertions. The first assertion is that the Licensee's management "made commitments cynically simply to expedite the licensing" of the Comanche Peak Steam Electric Station, Unit 1. The second assertion is that the Licensee's management has made misleading statements to the NRC Staff that the Borg-Warner check valves would be corrected and able to perform their design function before licensing.

The Petitioner's contention that the Licensee's management "made commitments cynically simply to expedite the licensing" of the Comanche Peak Steam Electric Station, Unit 1, implies that the Licensee's management made commitments without intending to comply with the commitments. The Licensee's corrective actions and commitments are provided in letters TXX-89424 of June 19, 1989; TXX-89596 of August 18, 1989; TXX-89744 of October 14, 1989; TXX-89849 of December 21, 1989; TXX-90139 of April 9, 1990; TXX-90149 acceptance in IR 50ctions to verify that no tioner's exception was stember 14, 1989 letter he Licensee as "plastic e original configuration icensee revised its use piping met minimum ge had occurred. The XX-89744, of October

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The Petitioner's contention that the Licensee's management has made misleading statements to the Staff that the Borg-Warner check valves would be corrected and perform their design function before licensing is based on the Petitioner's assertion that the Borg-Warner check valves at the Comanche Peak Steam Electric Station continue to fail and have never been able to perform their design function. Based on its review and evaluation as discussed in response to Contention (A) above, the Staff believes that the Borg-Warner check valves at the Comanche Peak Steam Electric Station will perform their safety function. The Staff finds, therefore, that this contention is not supported and that the Licensee's management has corrected the identified problems with the Borg-Warner check valves at the Comanche Peak Steam Electric Station, and there is reasonable assurance that the Borg-Warner check valves will perform their safety function. The Staff considers this contention to be without merit.

The Petitioner questioned the competence and integrity of the Licensee to operate a nuclear facility. The Staff evaluated the Licensee's management in two special inspections, the Operational Readiness Team Inspection (IR 50-445, 446/89-200) conducted before licensing, and a Special Performance Assessment (IR 50-445, 446/90-20) conducted before the facility exceeded 50% of rated power. Based on these inspections, the Staff found the Licensee's management responsive, sound, and reliable. The Staff further found that the Licensee's staff had demonstrated the proper concern to safely operate the reactors and had successfully made the transition from a construction- to an operations-based organization. The Staff has continued to evaluate the Licensee management's ability to operate the Comanche Peak Steam Electric Station and has found the Licensee's management acceptable. The most recent summary of the Staff's assessment is provided in the Systematic Assessment of Licensee Performance (SALP) Report 50-445, 446/5 J-46 of May 10, 1991.

The Staff reviewed the Li ensee's resolution of the issues related to Borg-Warner check valves at the Comanche Peak Steam Electric Station, has assessed the Licensee's management, and concludes that the Licensee's management has adequately implemented its commitments and has the proper concern to safely operate the Comanche Peak Steam Electric Station. The Staff, therefore, finds that the Petitioner's contention is without merit and does not present a substantial health or safety issue.

E. Failure to Provide Adequate Documentation Regarding the Acceptability of Borg-Warner Check Valves

The Petitioner contends that the Licensee and its vendors consistently have failed to provide documentation to support the adequacy of Borg-Warner check valves at the Comanche Peak Steam Electric Station. The Petitioner cites specific examples, including one issue regarding the Licensee's revision of the root cause of a 1985 event that was a precursor to the April and May 1989 events and several issues regarding BW/IP International, Incorporated.

Citing from IRs 50-445, 446/89-73 and 89-84, the Petitioner contends that the Staff inspectors determined that there was "no documentation" to support the Licensee's revision of a root-cause analysis regarding a failed Borg-Warner check valve in 1985. The Staff has reviewed the IRs cited by the Petitioner and found that the IRs cite extensive documentation provided by the Licensee to support the basis for the revised root cause of the 1985 failure of a Borg-Warner check vulve. The documentation included two Pailure Analysis Reports, analytical documentation, vendor information, a Problem Report, and two internal Licensee memoranda. However, this documentation did not include a record of one of the Licensee's discussions with the vendor, BW/IP International, Incorporated. This discussion led to the Licensee reevaluating the original, and ultimately correct, root cause of a 1985 event that was a precursor to the April and May 1989 events. Thus, the Licensee had provided extensive documentation to justify its determination of the revised root cause for the 1985 precursor event, even though the revised root cause was incorrect. The Staff issued a violation related to this event because the Licensee did not take adequate corrective action to follow up on the original, and ultimately correct, root cause, not for lack of documentation. Therefore, the Staff concludes that the Petitioner's contention is without merit.

The Petitioner's other examples relate to a more general contention regarding lack of documentation by the check valve vendor, BW/IP International, Incorporated, to support the quality assurance of swing arms installed in Borg-Warner check valves for use in safety-related systems. The Petitioner identified the examples as being contained in IR 99900030/89-01. In the subject IR, the Staff identified the lack of documentation as a nonconformance with NRC regulations. The vendor evaluated its programs and identified corrective actions to ensure that future internal parts would include an adequate assurance of quality, with documentation to certify that the parts are suitable for use in safety-related systa

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utioner contends that mentation" to support a failed Borg-Warner ited by the Petitioner vided by the Licensee 85 failure of a Borglure Analysis Reports, em Report, and two tion "1 not include a B. PInternational, ating the original, and precursor to the April tensive documentation 1985 precursor event. taff issued a violation quate corrective action cause, not for lack of Petitioner's contention

il contention regarding International, Incorpotalled in Borg-Warner oner identified the exe subject IR, the Staff ice with NRC regulai corrective actions to e assurance of quality, or use in safety-related systems. The vendor discussed its corrective actions in letters of February 22, 1990, and May 4, 1990.

The Staff has evaluated the effect of this lack of documentation. The Staff has determined that, because the Licensee's program for evaluating the suitability of sand-cast swing arms in Borg-Warner check valves at Comanche Peak Steam Electric Station is acceptable, the lack of documentation at BW/IP International, Incorporated, does not present a substantial health or safety issue at the Comanche Peak Steam Electric Station.

F. Other Concerns Raised by the Petitioner

The Petitioner identified the following additional issues:

1. Body-to-Bonnet Legkage in Borg-Warner Check Valves

The Petitioner implied that body-to-bonnet leakage in Borg-Warner check valves at the Comanche Peak Steam Electric Station is equivalent to the seat failures experienced in April and May of 1989. The Petitioner referred to IR 50-445, 446/90-03 as stating "that several of the check valves continued to leak." The Petitioner also contended that the corrective actions for the body-to-bonnet leakage are questionable.

Check valves have a safety function of preventing reverse flow by having a disk sit against a seating surface (both the disk and seat are inside the valve body). In the Borg-Warner check valves that failed at the Comanche Peak Ster m Electric Station, the disk is attached to a bonnet on top of the valve. The bonnet is bolted into the upper portion of the valve body. and, in conjunction with a ring that seals the small gap between the body of the valve and the edges of the bonnet, closes the valve body from the external environment. Thus, because leakage between the body and the bonnet ('body-to-bonnet leakage') is not in the flow path through the valve, it does not affect the safety function of the valve. In IR 50-445, 446/90-09, the Staff also stated that because the body-to-bonnet leaks do not affect the operability of the check valves, there is no safety concern with the body-to-bonnet leakage. Thus, body-to-bonnet leakage is not related to leakage past the seating surface of the Borg-Warner check valves, and thus is not related to a failure of the Borg-Warner check valves to perform their safety function.

In IR 50-445, 446/90-03, the Staff stated that the Licensee had identified the body-to-bonnet leakage in Borg-Warner check valves. The referenced IR discusses the Licensee's actions to correct the leakage, including honing and hot

torquing.⁶ The Staff reviewed and evaluated the Licensee's corrective actions and determined that the actions were effective in correcting the body-to-bonnet leakage with the exception of minor leakage on two of the Borg-Warner check valves at the Comanche Peak Steam Electric Station. The Staff has determined that the remaining minor leakage raises no safety concerns. In IRs 50-445, 446/90-03 and 90-09, the Staff documented the Licensee's corrective actions, and the Staff's evaluation of the Licensee's corrective actions.

Based on the Staff's inspections which evaluated the significance of, and corrective actions related to, body-to-bonnet leakage in Borg-Warner check valves at the Comanche Peak Steam Electric Station, the Staff has concluded that the Licensee has satisfactorily addressed the issues raised by the Petitioner. Therefore, these issues do not present a substantial health or safety issue.

2. Use of Hydraulic Lifts on Main Feedwater Isolation Valves

The Petitioner contends that the Licensee used a hydraulic lifting device to help operators lift the Main Feedwater Isolation Valve (MFWIV) discs off their seats on April 27, 1...0. On May 9, 1990, at a public meeting with the Staff, the Licensee discussed this issue, and the Staff identified a concern about possible damage to the MFWIVs. The Licensee evaluated the effect of using hydraulic lifting devices on MFWIVs and determined that the MFWIVs would not be overstressed. The Licensee provided its evaluation in letter TXX-90188 of May 18, 1990.

The Staff reviewed the Licensee's evaluation regarding this concern and found it acceptable. The Staff documented its inspections in IRs 50-445, 446/90-19 and 90-20.

The Staff conducted these inspections to determine if the MFWIVs could be damaged by the use of hydraulic lifting details. Based on these inspections, the Staff concludes that the Licensee has satisfactorily addressed the issues raised by the Staff and identified by the Petitioner and that u. we issues do not present a substantial health or safety issue.

Availability of the Report of the Vendor Inspection at BW/IP International, Incorporated

The Petitioner contends that the availability of the January 12, 1990 report of the vendor inspection at BW/IP International ("vendor inspection report"), raised

⁶ "Hot torquing" is the tightening of the nuts that hold the bounet in the budy of Borg-Warner check valves at hos (normal-operating-temperature) conditions. When hos, the body, bonnet, and stude onto which the nuts are being tightened all expand. When tightened at hot conditions, the expanded stude allow additional tightening of the nuts, so that when the valve cools, the stude contract, increasing the pressure on the body-to-bonnet seal.

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of Borg-Warner check valves at ad stude onto which the nuts are de allow additional tightening of a on the body-to-bonnet scal. raised serious questions regarding the integrity of the licensing process and the safety of Comanche Peak Steam Electric Station, Unit 1. The Petitioner contends that Region IV did not receive the referenced report until October 16, 1990; therefore, the Petitioner had no way of knowing about the report until almost 10 months after the licensing decision. The Petitioner further contends that serious questions about the integrity of the licensing process were raised because the vendor inspection report was in existence less than a month before Comanche Peak Up! 1 was licensed and Region IV may not have known about the referenced report at the time of licensing.

The Staff has evaluated the Petitioner's contention. The referenced report was distributed through the NRC's internal distribution system (Regulatory Information Distribution System [RIDS]) to numerous offices and to the Public Document Room. The distribution code identified for the Inspection Report, RIDS IE:09, includes all regions, including Region IV. The distribution made through this system is made within approximately 2 weeks of issuance, as evidenced by receipt of the vendor inspection report in the PDR on February 1, 1990. Thus, the referenced report was available to CFUR, as it was to the rest of the general public, shortly after it was issued.

At the time the Vendor Inspection Report was issued and throughout the licensing of Comanche Peak Unit 1, the inspection and licensing activities at Comanche Peak were being managed by the Associate Director for Special Projects (ADSP), Office of Nuclear Reactor Regulation, and not Region IV. The Vendor Inspection Report was received by the appropriate ADSP inspection Staff, all of whom were located on site, and by ADSP management and licensing Staff at NRC Headquarters, Rockville, Maryland, shortly after it was issued. The ADSP licensing and inspection staff evaluated the information contained in the vendor inspection report prior to licensing Comanche Peak Unit 1. Since the vendor inspection report was available and was evaluated by the appropriate NRC Staff prior to the licensing decision, the Staff considers the underlying premise for the Petitioner's contention to be invalid.

The vendor inspection evaluated the quality assurance certification p. cess at BW/IP and would not have directly determined the safety of the swing arms actually installed at Comanche Peak. The Licensee's test program, as discussed in detail in Section B of this response, tested all of the swing arms actually installed in Comanche Peak Unit 1 prior to licensing. The NRC Staff determined that the results of this test program provided assurance that the swing arms actually installed in Comanche Peak Unit 1 were acceptable for use in safety-related systems. The NRC Staff, therefore, had sufficient information, independent from the BW/IP inspection, to determine that the AFW check valves at Comanche Peak were acceptable prior to licensing, and the information contained in the vendor inspection report did not alter the NRC Staff conclusions regarding the acceptability of the swing arms installed at Comanche Peak Unit 1.

Thus, the NRC Staff considers the questions raised by the Petitioner regarding the integrity of the licensing process and safety of the plant itself based on the existence and availability of the Vendor Inspection Report of BW/IP to be without merit.

4. The Director, NRR's Knowledge and Use of the Information in the Vendor Inspection Report

The Petitioner contends that the Director of NRR knew of the Vendor Inspection Report of BW/IP and its findings prior to issuance of a low-power license and chose to ignore it.

The Director of NRR was not specifically aware of the vendor inspection report at the time of low-power licensing, although the subject of the adequacy of Borg-Warner check valves was reviewed by the Director at the time. The ADSP Staff had conducted an evaluation of the impact that the results the vendor inspection may have had on the safety of Comanche Peak Unit 1 prior to licensing. The ADSP Staff appropriately determined, based on its review of the Texas Utilities Electric Company test program of all of the swing arms installed in Borg-Warner check valves at Comanche Peak Steam Electric Station Unit 1, that the swing arms installed at the time of low-power licensing were acceptable, and the quality assurance problems identified at B'W/IP in the vendor inspection report did not alter the NRC Staff conclusions regarding the acceptability of the Borg-Warner check valves instailed at Comanche Peak Steam Electric Station Unit 1. Because the issues in the vendor inspection report did not affect the safety of the Borg-Warner check valves actually installed at Comanche Peak Steam Electric Station Unit 1, the vendor inspection was not identified to the Director of NRR as an issue in licensing the facility.

Because of the nature of this additional assertion, a copy of the Petition was provided to the NRC Inspector General on December 24, 1990, for action as appropriate.

5. NRC Knowledge of and Use of the Information in the Vendor Inspection Report

The Petitioner contends that the Commission may not have known about the January 12, 1990 Vendor Inspection Report of BW/IP in making its decision to issue the full-power license for Comanche Peak. As discussed in detail in response to additional Contentions F.3 and F.4, above, the ADSP Staff evaluated the information in the vendor inspection report and determined that it did not

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not have known about the TP in making its decision As discussed in detail in the ADSP Staff evaluated determined that it did not affect the conclusions regarding the acceptability of the swing arms installed in Borg-Warner check valves at Comanche Peak Unit 1. Therefore, the vendor inspection report was not identified to the Commission during the full-power licensing deliberations.

Based on Staff assurance of the safety of the Borg-Warner check valves actually installed at Comanche Peak Steam Electric Station Unit 1 that was gained through plant-specific evaluation of the internals of Borg-Warner check valves, and that the vendor inspection report did not change that assurance, the Staff has concluded that the contention raised by the Petitioner that the availability of the vendor inspection report raised serious questions about the licensing process is without merit, and does not present a significant health or safety issue.

IV. CONCLUSIONS

The NRC Staff reviewed the arguments in CFUR's Petition that the failures of Borg-Warner check valves at the Comanche Peak Steam Electric Station represented "issues of safety" sufficient to require the Licensee to show cause why its license to operate Comanche Peak Steam Electric Station, Unit 1, should not be revoked. The Staff found that the Licensee's corrective actions to resolve failures and other problems associated with the Borg-Warner check valves were appropriate and responded to the Staff's concerns and to the safety and operational issues involved in the failures and other problems with Borg-Warner check valves at Comanche Peak Steam Electric Station.

The NRC Staff assessed the specific references and citations in the Petition and all of the technical analyses, inspections, reviews, and evaluations conducted by both the Licensee and the Staff. The Staff reviewed the complete text of all nineteen of the documents attached to the Petition as well as many additional documents regarding Borg-Warner check valves at the Comanche Peak Steam Electric Station. The documents relied upon by the Petitioner in support of the petition were existing NRC and Licensee documents. Based on its entire review, the Staff has not found any substantial health and safety issues that would call into question the continued safe operation of Comanche Peak Steam Electric Station.

The institution of proceedings in response to a request in accordance with 10 C.F.R. § 2.206 is appropriate only when substantial health and safety issues have been raised. See Consolidated Edison Co. of New York (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 175 (1975), and Washington Public Power Supply System (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984). This standard has been applied to determine if any action in response to the Fetition is warranted. For the reasons discussed above, no basic exists for taking any action in response to the Petition as no substantial health or safety issues have been raised by the Petition. Accordingly, no action pursuant to section 2.206 is being taken in this matter.

The Staff will file a copy of this Decision with the Secretary of the Commission for the Commission's review in accordance with 10 C.F.R. § 2.206(c).

> FOR THE NUCLEAR REGULATORY COMI SISSION

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Thomas E. Murley, Director Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland, this 27th day of September 1991.