



101 California Street, Suite 1000, San Francisco, CA 94111-5894

415/397-5600

November 13, 1984
84056.037

Mrs. Juanita Ellis
President, CASE
1426 S. Polk
Dallas, Texas 75224

Subject: Communications Report Transmittal #12
Comanche Peak Steam Electric Station
Independent Assessment Program - Phase 4
Texas Utilities Generating Company
Job. No. 84056

Dear Mrs. Ellis:

Enclosed please find communications reports associated with the Phase 4 Independent Assessment Program.

If you have any questions or desire to discuss any of these documents, please do not hesitate to call.

Very truly yours,

D. Oldag
Administrative Assistant

Attachments

cc: Mr. D. Wade (TUGCO) w/attachments
Mr. S. Treby (USNRC) w/attachments
Ms. J. Van Amerongen (TUGCO/EBASCO) w/attachments
Mr. D. Pigott (Orrick, Herrington & Sutcliffe) w/o attachments
Mr. S. Burwell (USNRC) w/attachments

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PDR ADOCK 05000445
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See
Attached
Dist



Communications Report

Company:	Texas Utilities	<input checked="" type="checkbox"/> Telecon	<input type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	8-30-84
Subject:	Mechanical Systems Review Questions	Time:	3:30
		Place:	Cygn-a-SF
Participants:	D. Wade	of	TUGCO
	N. Williams		Cygn-a

Item	Comments	Required Action By
	<p>Dave and I discussed the CCW system thermal barrier question in light of TUGCO's response. I compared Cygna's understanding of the Westinghouse Part 21 with the sequence of events which concerned us with the Comanche Peak design.</p> <p>Westinghouse is focused on overpressurization of the CCW system caused by the surge tank vent valve closing on a high radiation signal and a concurrent volume increase in CCW water inventory. The overpressure that is described in their letter to TUGCO is in both the surge tank and piping downstream of the CCW pumps with the main area of concern being the piping. Westinghouse also assumes that the tank vent discharges to the same receiver as the tank relief valve. The stated Westinghouse objective is "... to ensure that the maximum pump discharge pressure does not exceed 110% of design, assuming a water solid surge tank coincident with the maximum anticipated inleakage through a ruptured tube in one of the system heat exchangers." The proposed fix is to remove the vent and relief valves from the surge tank and replace them with vent/overflow pipes. This solution does not address single failure requirements, surge tank rupture, or the vent size and flow capacity effects on the situation. Westinghouse also states thermal barrier leak rate is 260 G.P.M. "cold" rather than what it would be at operating temperature.</p> <p>The Cygna concern is focused on a single failure causing a LOCA outside containment and possible common mode failure of the CCW system. The Cygna scenario is as follows: There is a rupture in a reactor coolant thermal barrier. The temperature control valve in the CCW system fails to close and reactor coolant at 650°F and</p>	

Signed:	<i>N. Williams</i>	Page	1	of	2
Distribution:	N. William, D. Wade, J. Van Amerongen, R. Hess, J.P. Foley, S.Treby, S. Burwell, J. Ellis, Project File				



Communications Report

Required
Action By

Item

Comments

2250 psia flows into the low pressure section of the CCW system at the rate of 275 G.P.M. No other automatic functions exist to isolate this leakage in the high pressure portions of the CCW system. The CCW piping outside containment will be overpressurized by this high flowrate and pressure and the level in the surge tank will begin to rise at the rate of 275 G.P.M. Since the surge tank is only designed for 10 psig and is only protected by a 1 G.P.M. relief valve and 1 inch vent valve it will quickly become overpressurized and could rupture. If the tank does rupture both safeguards trains of the CCW system would be disabled and a LOCA outside containment would result. If the CCW piping outside containment failed prior to the surge tank, then both trains of CCW may not be disabled but a LOCA outside containment would still occur. It should also be noted that even if the tank and piping remain intact, the surge tank vent will allow the leakage to discharge into the room containing the surge tank. This is due to the vent not being piped to the same receiver as the relief valve in accordance with the Westinghouse normal practice.

It is not clear that the Westinghouse Part 21 is directly related to the Cygna question. Westinghouse does not address single failure of the thermal barrier isolation valve or a LOCA outside containment but they do list thermal barrier leakage into the surge tank as typical limiting condition. Westinghouse is only concerned with overpressurization of components on the discharge side of the CCW pump while Cygna is concerned with the surge tank and CCW return piping. Since Cygna does not have a copy of the actual Part 21 filed by Westinghouse, it is not possible to further assess the similarities or differences between it and the Cygna question.

Dave agreed with these two descriptions - and the differences between the two. The purpose of sending the Westinghouse letter was to demonstrate CCW single failure design problems are generic to the industry and not just a design error at Comanche Peak. TUGCO does not believe that the two scenarios are completely alike and did not intend to imply that. They understand that either adequate protection against the consequences of a single failure must be provided or the surge tank must be redesigned to prevent rupture.



Communications Report

Company: Texas Utilities ☐ Telecon ☒ Conference Report

Project: Comanche Peak Steam Electric Station Job No. 84056
Independent Assessment Program - Phase 4 Date: 7/26/84

Subject: Cable Tray Support Calculations Time: 8:30
Place: CPSFS Site

Participants: Janelle Burkeen of Gibbs & Hill
Bill Horstman CES

Item	Comments	Required Action By
	<p>I requested copies of the Gibbs & Hill calculations used in the design of cable tray supports.</p> <p>See attached sheet for list of specific calculations.</p>	

Signed: NH Williams Page 1 of 1
Distribution: N. Williams, D. Wade, J. VanAmerongen, R. Hess, J. Russ, S. Treby, J. Ellis,
S. Burwell, Project File

CALL
Bill @ X226

In order to receive a copy of Duplicate File documents,
recipient agrees to destroy after using and that no
copies shall be made of the document.

Documents requested:

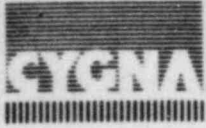
1. SCS-101C, Set 1, SHT: { 129-146
1-19, 27-30, 37-42, 60-67, 73-79, 83, 94-98, 104, 105, 116
2. SCS-101C Set 3 SHT: 4-10 19-47 59 88-96 99-104, 109-112 117-128 135 139 141
3. SCS-101C, Set 2, SHT: 1-20, 32-34, 40, 45-55, 70-86
4. SCS-103C, Set 1, SHT: 13-19, 55, 56
5. SCS-103C, Set 2, SHT: 32, 53

Bill Horstman
Signature

CYQNA
ENFRAY
SERVICES
Dept.

7/24/84
Date

6. SCS-104C, Set 1, SHT: 7-27, 36-40, 47-52
7. SCS-105C, SET 1, SHT: 2, 3, 25-29, 92, 93, 112, 116
8. SCS-146C, Set 4, SHT: 21
9. SCS-146C, Set 8, SHT 21-24



Communications Report

Company:	Texas Utilities	<input checked="" type="checkbox"/> Telecon	<input type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Electric Station Independent Assessment Program - Phase 4	Job No:	84056
		Date:	24 July 1984
Subject:	Thermo-lag Coating of Conduits	Time:	9:10 AM
		Place:	CPSES
Participants:	Gary Murka (x461)	of	TUGCO
	John Russ		CBS

Item	Comments	Required Action By
	I asked Mr. Murka which cross-section (circular or square) is to be used in fire-coating conduits. Mr. Murka stated that the craft is instructed to install the cross-sections per procedure CP-CPM-10.3.	

Signed:	<i>N. Williams</i>	Page	1	of	1
Distribution:	N. Williams, D. Wade, J. VanAmerongen, R. Hess, J. Russ, S. Treby, J. Ellis, S. Burwell, Project File				

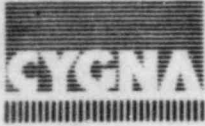


Communications Report

Company:	Texas Utilities	<input type="checkbox"/> Telecon	<input checked="" type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	7/23/84
Subject:	Document Request	Time:	11:05 a.m.
		Place:	CPSES
Participants:	Jill Lewis	of	Brown & Root (DCC)
	John Russ		Cygna

Item	Comments	Required Action By
	<p>Reference: Conference Report dated 7/21/84, "Document Request," 11:00 a.m., C. Green and J. Russ participating.</p> <p>Cygna received a copy of DE/CD-S-1000.</p>	

Signed:	<i>NH Williams</i>	/jm	Page 1	of 1
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Communications Report

Company:	Texas Utilities	<input type="checkbox"/> Telecon	<input checked="" type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	7/23/84
Subject:	Request for Open NCR's	Time:	12:45 p.m.
		Place:	CPSES
Participants:	Clara Holiday	of	TUGCO
	John Russ		Cygna

Item	Comments	Required Action By
	<p>Cygna requested and received the following NCR's:</p> <p>NCR-M-83-01661 NCR-M-83-01662 NCR-M-84-00182 NCR-M-84-100038</p>	

Signed:	<i>N. Williams</i>	Page 1 of 1
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Communications Report

Company:	Texas Utilities	<input type="checkbox"/> Telecon	<input checked="" type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	7/23/84
Subject:	Nonconformance Reports (NCR's) Against Cable Tray and Conduit Supports	Time:	11:00 a.m.
		Place:	CPSES
Participants:	Charles Osborn	of	TUGCO
	John Russ		Cygna

Item	Comments	Required Action By
	<p>Reference: Telecon dated 7/17/84, "Nonconformance Reports (NCR's) Against Cable Tray and Conduit Supports," C. Osborn and J. Russ participating.</p> <p>Cygna received the listing requested in the referenced telecon.</p>	

Signed: *N. Williams* /jm Page 1 of 1
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Communications Report

Company:	Texas Utilities	<input type="checkbox"/> Telecon	<input checked="" type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	7/23/84
Subject:	SDAR Request	Time:	10:15 a.m.
		Place:	CPSES Site
Participants:	Laura Jones	of	TUGCO
	John Russ		Cygna

Item	Comments	Required Action By
	Cygna requested and received a copy of SDAR-0015.	

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Distribution: N. Williams, D. Wade, J. VanAmerongen, R. Hess, J. Russ, S. Treby, J. Ellis,
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Communications Report

Company:	Texas Utilities	<input type="checkbox"/> Telecon	<input type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	7/21/84
Subject:	Junction Box Support Drawings	Time:	11:00 a.m.
		Place:	CPSES
Participants:	Diane Bleeker	of	DCC
	Craig McClung (x226)		Cyqna

Item	Comments	Required Action By
1.	Please supply Cygna with a copy of drawings: 2323-S-0910 - Sh. JA-1, Rev. 0 2323-S-0910 - Sh. JA-1, Rev. 1 2323-S-0910 - Sh. JA-1, Rev. 7	PM 7/21/84

Signed:	<i>N. Williams</i>	Page	1	of	1
Distribution:	N. Williams, D. Wade, J. VanAmerongen, R. Hess, J. Russ, S. Treby, J. Ellis, S. Burwell, Project File				



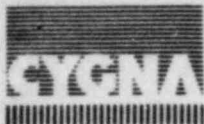
Communications Report

Company:	Texas Utilities	<input type="checkbox"/> Telecon	<input checked="" type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Electric Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	7/18/84
Subject:	Design Input Control	Time:	10:00 a.m. est
		Place:	G&H NY
Participants:	Steve Lim	of	G&H
	S. Bibo		CES
	D. Smedley		CES

Item	Comments	Required Action By
	<p>We asked S. Lim to explain the correlation between computer programs (ANSYS and RELAP) in stress calculations AB-1-1, AB-1-2, AB-1-3, & AB-1-4. Steve explained that output from "RELAP" was used as input to "ANSYS" and that output from "ANSYS" was used as input to the referenced calculations. Steve stated that it would have been better (from a QA standpoint) to make reference to both ANSYS and RELAP in the referenced calculations instead of just ANSYS. The basic question asked of S. Lim was, "Is design input traceable back to the original source?" Steve stated that although it is somewhat confusing, you can get from the calculation back to ANSYS (by reference) and through an examination of the job control language (JCL) on the ANSYS input, you can get from ANSYS back to RELAP.</p>	

Signed: *N. Williams* /rb Page 1 of 1

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Communications Report

Company:

Texas Utilities

☐ Telecon

☒ Conference Report

Project:

Comanche Peak Steam Election Station
Independent Assessment Program - Phase 4

Job No.

84056

Date:

7/25/84

Subject:

Document Request

Time:

11:00 a.m.

Place:

CPSES

Participants:

Tom Keiss

of

TUGCO

John Russ

Cygna

Item

Comments

Required
Action By

Reference: Telecon dated 7/24/84, "Document Request," T. Keiss and J. Russ.

Cygna received a copy of item 3 listed in referenced telecon.

Signed:

N. Williams

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of

/jm

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Distribution:

N. Williams, D. Wade, J. Amerongen, R. Hess, J. Russ, S. Treby, J. Ellis,

1020.01a

S. Burwell, Project File



Communications Report

Company:	Texas Utilities	<input checked="" type="checkbox"/> Telecon	<input type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Electric Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	10/10/84
Subject:	Systems Review Data	Time:	11:00 A.M.
		Place:	SFRO
Participants	Jeanne VanAmerongen	of	TUGCO
	R. Hess		CES

Item	Comments	Required Action By
1.	Asked Jeanne when we would receive the pipe flow calculation on the vent chillers and the vendor data on the valve motor horsepower ratings that TUGCO still owed Cygna.	
2.	TUGCO still has not gotten the horsepower rating letter from the vendor. They will forward it as soon as possible.	
3.	The design verification of the calculation should be complete today. She told J. Irons of Gibbs & Hill to Federal Express it directly to Cygna.	

Signed: *NH Williams* /ajb Page 1 of 1
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S. Treby, J. Ellis, S. Burwell, Project File



Communications Report

Company: Texas Utilities

☒ Telecon

☐ Conference Report

Project: Comanche Peak Steam Electric Station
Independent Assessment Program - Phase 4

Job No. 84056

Date: 10/30/84

Subject: AWS Computational Approach
"Punching Shear"

Time: 1:30

Place: SF

Participants: J. Finneran

of TUGCO

J. Minichiello

CYGNA

Item	Comments	Required Action By
	<p>Cygna has reviewed TUGCO's calculations for MS-1-002-005-S72R (done in response to the 10/4/84 telecon between Cygna and TUGCO). Cygna has found the calculations correct. Cygna requested TUGCO to provide documentation showing the AWS calculation is an appropriate method for evaluating this type of local stress.</p>	

Signed:

JC Minichiello for NHW

/rr Page 1 of 1

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Communications Report

Company:

Texas Utilities

☐ Telecon

☒ Conference Report

Project:

Comanche Peak Steam Electric Station
Independent Assessment Program - Phase 4

Job No.

84056

Date:

7/26/84

Subject:

Cable Tray Supports

Time:

9:00 AM

Place:

CPSES Site

Participants:

Tom Keiss

of

TUGCO

Bill Horstman

CYGNA

Item

Comments

Required
Action By

I had found an apparent discrepancy in design documentation for cable tray hanger #3026. I asked Tom to clarify the problem. Gibbs & Hill Drawing 2323-E1-0713-01-S indicates that cable tray hanger #3026 shall be of type SP-4 (omit brace). However, site support drawing FSE-00159 Sht 3026 shows that the brace is present. Tom said that the Gibbs & Hill drawing is correct, and drafting made an error in preparing the support drawing. Field inspection indicates that the brace is not present. Tom said it was Gibbs & Hill New York's responsibility to justify the use of this hanger without a brace, so the site group has no calculations.

Signed:

N. Williams

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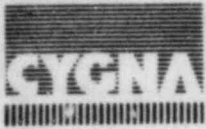
Communications Report

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Company:	Texas Utilities	<input type="checkbox"/> Telecon	<input checked="" type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	7/27/84
Subject:	CVC Request	Time:	9:00 AM
		Place:	CPSES
Participants:	Mike Strange	of	Brown & Root
	John Russ		CES

Item	Comments	Required Action By												
	<p>Cynga requested CVC's for the following CMC's and DCA's. All CVC's except for CMC 11045 were received.</p> <table><tr><td>DCA</td><td>20506</td></tr><tr><td>DCA</td><td>20466</td></tr><tr><td>DCA</td><td>20331</td></tr><tr><td>CMC</td><td>11060</td></tr><tr><td>CMC</td><td>11058</td></tr><tr><td>CMC</td><td>11045</td></tr></table>	DCA	20506	DCA	20466	DCA	20331	CMC	11060	CMC	11058	CMC	11045	
DCA	20506													
DCA	20466													
DCA	20331													
CMC	11060													
CMC	11058													
CMC	11045													

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Communications Report

Company:	Texas Utilities	<input checked="" type="checkbox"/> Telecon	<input type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Electric Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	10/3/84
Subject:	Mechanical Review	Time:	8:45 a.m.
		Place:	SF
Participants:	J. VanAmerongen	of	EBASCO
	L. J. Weingart		CES

Item	Comments	Required Action By
	<p>Dave Wade had previously told Bob Hess that class 5 piping was defined in the FSAR. I could not find this in the sections available in the Cygna office. Therefore, I requested that Jean check into the CPSES FSAR to determine which section describes class 5 piping.</p> <p>Jean called back and informed me that the information is on page 3.2-10. She told me that she would send a copy out in the overnight package today.</p>	

Signed: N. Williams /rf Page 1 of 1

Distribution: N. Williams, D. Wade, J. VanAmerongen, R. Hess, L. Weingart, S. Treby,

1020.01a J. Ellis, S. Burwell, Project File



Communications Report

Company: Texas Utilities

☒ Telecon

☐ Conference Report

Project: Comanche Peak Steam Election Station
Independent Assessment Program - Phase 4

Job No. 84056

Date: 8/14/84

Subject: (1) Fouling Factors for CCW Heat Exchangers
(2) Maximum Flows through Heat Exchangers

Time:

Place:

Participants: J. Foley

of Cygna

N. Cristali

Gibbs & Hill

Item	Comments	Required Action By
1	<p>I asked Wanda to provide the fouling factors specified to the CCW Heat Exchanger manufacturer.</p> <p><u>Response:</u></p> <p>W. Cristali telecopied Struthers-Wells specification sheets showing cleanliness factors of 80 percent. Cygna will convert to fouling factor to determine if TEMA recommendations are met.</p>	
2	<p>I asked Wanda to provide manufacturers' flow rates for the following heat exchangers:</p> <p>RHR Containment Spray Chilled Water (nuclear) Condenser Control Room A/C Chiller Condenser</p> <p><u>Response:</u></p> <p>W. Cristali telecopied manufacturers' data on 8/16/84. Cygna will check G&H flow calculations to be sure manufacturer flow rates are not exceeded.</p>	

Signed:

N. Williams

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Distribution: N. Williams, D. Wade, J. Van Amerongen, R. Hess, P. Rainey, S. Treby, J. Ellis,



Communications Report

Company:	Texas Utilities	<input checked="" type="checkbox"/> Telecon	<input type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	8/24/84
Subject:	Cleanliness/Fouling Factors for CCW Heat Exchangers	Time:	11:30
		Place:	SFRO
Participants:	John Irons	of	Gibbs & Hill
	J. Foley		Cygna

Item	Comments	Required Action By
	<p>I told John that although we had researched "cleanliness" factors, and thought we understood the relationship of cleanliness factors to fouling factors, we were still not able to make a definite correlation for the CPSES CCW Heat Exchanger because of some apparent discrepancies in the data sheets Gibbs & Hill had sent us.</p> <p>He explained that the values given in the data sheets were not always easy to interpret because some were "design values" and other are "required values" for certain cases.</p> <p>He agreed to send other sheets which would clarify which are "design values". Using these numbers, we should be able to resolve this item (i.e., whether fouling factors specified by TEMA, or their equivalent, were used in the design of the CCW Heat Exchanger.</p>	

Signed: N.A. Williams /ceh Page 1 of 1

Distribution: N. Williams, D. Wade, J. Van Amerongen, J. Hess, P. Rainey, T. Martin, S. Treby, J. Ellis, S. Burwell, Project File

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Communications Report

Company:	Texas Utilities	<input checked="" type="checkbox"/> Telecon	<input type="checkbox"/> Conference Report
Project:	Comanche Peak Steam Election Station Independent Assessment Program - Phase 4	Job No.	84056
		Date:	7/24/84
Subject:	Document Request	Time:	8:05 a.m.
		Place:	CPSES
Participants:	Tom Keiss	of	TUGCO
	John Russ		Cygna

Item	Comments	Required Action By
	Cygna requested copies of the following documents:	
1.	T.J. Cope Cable Tray Qualification Test Report	TUGCO
2.	Burndy Husky Cable Tray Qualification Test Report	TUGCO
3.	Stress Analysis of Thermo-Lag Subliming Compound Coating Report, Rev. 2, Phillip L. Gould, 4/5/82.	TUGCO

Signed:	<i>N.A. Williams</i>	Page	1	of	1
Distribution:	N. Williams, D. Wade, J. VanAmerongen, R. Hess, J. Russ, S. Treby, J. Ellis, S. Burwell, Project File				