



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

FEB 13 1985

Docket Nos.: 50-445  
and 50-446

MEMORANDUM FOR: Chairman Palladino  
Commissioner Roberts  
Commissioner Asselstine  
Commissioner Bernthal  
Commissioner Zech

FROM: Darrell G. Eisenhut, Director  
Division of Licensing  
Office of Nuclear Reactor Regulation

SUBJECT: BOARD NOTIFICATION - ALLEGATIONS CONCERNING THE  
PROTECTIVE COATINGS AT COMANCHE PEAK (BOARD  
NOTIFICATION NO. 85-012)

This Notification is being provided to the Commission in accordance with the revised Commission's notification policy of July 6, 1984, to inform the Commission on all issues on the cases before the Commission.

This Notification supplements information provided in Board Notifications Nos. 84-108 and 84-136.

Board Notification No. 84-108 provided two letters from the NRC Region IV to Texas Utilities dated May 18, 1984 and May 23, 1984, respectively. The May 18, 1984 letter provided Texas Utilities with a copy of 60 allegations concerning the protective coatings at the Comanche Peak Steam Electric Station. The May 23, 1984 letter requested that Texas Utilities fully respond to each allegation providing (1) an evaluation of the validity of the allegation; (2) the safety significance as appropriate; and (3) the generic implication of the allegations on other systems or contractors, singularly or collectively, found to have merit.

Board Notification No. 84-136 provided a letter from L. F. Fikar (Texas Utilities) to R. L. Bangart (NRC Region IV) dated June 22, 1984. This letter contained responses to each of the 60 allegations concerning the protective coatings at the Comanche Peak Steam Electric Station.

On July 27, 1984 the NRC staff completed its review of the above letter and identified additional information it needed to complete its evaluation. The NRC staff requested a meeting to discuss the Texas Utilities' responses of June 22, 1984. A meeting notice was issued for a meeting to be held on August 8, 1984. This meeting notice dated July 27, 1984 attached an agenda, which is a list of specific questions describing the information required. This meeting notice is enclosed. Upon receiving the meeting notice and reviewing the enclosed questions, the applicant requested that he be permitted to answer the questions by letter. Based upon the applicant's schedule, the NRC staff agreed, and the meeting scheduled for August 8, 1984 was cancelled. The notice of cancellation is also enclosed.

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The applicant responded to all of the questions attached to the above meeting notice in three letters dated August 10, August 14, and August 21, 1984. These three letters are enclosed for your information. The enclosed responses constitute a part of the information reviewed by the TRT coatings group. These responses are being sent to you in order to provide you with additional information related to this matter in anticipation of the staff's evaluation of coatings allegations that will be described in forthcoming SSERs.

The parties to the proceeding are being informed by copy of this memorandum.

*for* *Frank J. Miraglia*  
Darrell G. Eisenhut, Director  
Division of Licensing

cc: P. Block, ASLB  
W. Jordan, ASLB  
K. McCollom, ASLB  
E. Johnson, ASLB  
H. Grossman, ASLB  
SECY (2)  
EDO (4)  
OGC  
OPE  
ACRS (10)  
Parties to the Proceeding

Enclosures:  
As stated

DISTRIBUTION LIST FOR BOARD NOTIFICATION

Comanche Peak Units 1&2  
Docket Nos. 50-445/446

Peter B. Bloch, Esq.  
Mr. James E. Cummins  
Mrs. Juanita Ellis  
Joseph Gallo, Esq.  
Billie Pirner Garde  
Ellen Ginsberg, Esq.  
Herbert Grossman, Esq.  
Renea Hicks, Esq.  
Elizabeth B. Johnson, Esq.  
Dr. W. Reed Johnson  
Dr. Walter H. Jordan  
Robert D. Martin, Esq.  
Dr. Kenneth A. McCollom  
Thomas S. Moore, Esq.  
Nicholas S. Reynolds, Esq.  
Anthony Z. Roisman, Esq.  
Alan S. Rosenthal, Esq.  
Mr. Lanny Alan Sinkin  
Mr. Michael D. Spence  
Robert A. Wooldridge, Esq.  
Mr. Homer C. Schmidt  
Atomic Safety and Licensing  
Board Panel  
Atomic Safety and Licensing  
Appeal Panel  
Docketing and Service Section  
Document Management Branch  
Mr. H. R. Rock  
Mr. A. T. Parker  
Ms. Nancy H. Williams  
Regional Administrator  
B. R. Clements  
William A. Burchette, Esq.  
David R. Pigott, Esq.  
Mr. Dennis Kelley  
John W. Beck  
Mr. Jack Redding  
ACRS (10)



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

Enclosure 1

JUL 27 1984

Docket Nos: 50-445  
50-446

MEMORANDUM FOR: Thomas A. Ippolito, Project Director  
Comanche Peak, DL

FROM: Annette Vietti, Project Manager  
Licensing Branch No. 3, DL

SUBJECT: FORTHCOMING MEETING WITH TEXAS UTILITIES GENERATING COMPANY  
(TUGCO) - PROTECTIVE COATING PRACTICES AT COMANCHE PEAK

DATE AND TIME: Wednesday, August 8, 1984  
9:00 am - 5:00 pm

LOCATION: Comanche Peak Nuclear Operations Support Facility  
Glen Rose, Texas

PURPOSE: To discuss TUGCO responses of June 22, 1984 to sixty  
allegations about protective coating practices at  
Comanche Peak. See enclosure for additional information  
to be discussed.

PARTICIPANTS: NRC Staff BNL

P. Matthews	V. Lettieri
S. Kirslis	J. Taylor
	W. Wells
	J. Oeschle

Licensee/Applicant Staff - J. Merrit; et. al.

Annette Vietti, Project Manager  
Licensing Branch No. 3, DL

Enclosure:  
Comanche Peak Coating Allegations - Requested Additional Information

cc: See next page

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COMANCHE PEAK

Mr. M. D. Spence  
President  
Texas Utilities Generating Company  
400 N. Olive St., L.B. 81  
Dallas, Texas 75201

cc: Nicholas S. Reynolds, Esq.  
Bishop, Liberman, Cook,  
Purcell & Reynolds  
1200 Seventeenth Street, N. W.  
Washington, D. C. 20036

Robert A. Wooldridge, Esq.  
Worsham, Forsythe, Sampels &  
Wooldridge  
2001 Bryan Tower, Suite 2500  
Dallas, Texas 75201

Mr. Homer C. Schmidt  
Manager - Nuclear Services  
Texas Utilities Generating Company  
Skyway Tower  
400 North Olive Street  
L. B. 81  
Dallas, Texas 75201

Mr. H. R. Rock  
Gibbs and Hill, Inc.  
393 Seventh Avenue  
New York, New York 10001

Mr. A. T. Parker  
Westinghouse Electric Corporation  
P. O. Box 355  
Pittsburgh, Pennsylvania 15230

Kenea Hicks, Esq.  
Assistant Attorney General  
Environmental Protection Division  
P. O. Box 12548, Capitol Station  
Austin, Texas 78711

Mrs. Juanita Ellis, President  
Citizens Association for Sound  
Energy  
1426 South Polk  
Dallas, Texas 75224

Ms. Nancy H. Williams  
CYG:IA  
101 California Street  
San Francisco, California 94111

Mr. James E. Cummins  
Resident Inspector/Comanche Peak  
Nuclear Power Station  
c/o U. S. Nuclear Regulatory  
Commission  
P. O. Box 38  
Glen Rose, Texas 76043

Mr. John T. Collins  
U. S. NRC, Region IV  
611 Ryan Plaza Drive  
Suite 1000  
Arlington, Texas 76011

Mr. Lanny Alan Sinkin  
114 W. 7th, Suite 220  
Austin, Texas 78701

B. R. Clements  
Vice President Nuclear  
Texas Utilities Generating Company  
Skyway Tower  
400 North Olive Street  
L. B. 81  
Dallas, Texas 75201

William A. Burchette, Esq.  
1200 New Hampshire Avenue, N. W.  
Suite 420  
Washington, D. C. 20036

Ms. Billie Pirner Garde  
Citizens Clinic Director  
Government Accountability Project  
1901 Que Street, N. W.  
Washington, D. C. 20009

David R. Pigott, Esq.  
Orrick, Herrington & Sutcliffe  
600 Montgomery Street  
San Francisco, California 94111

Anthony Z. Roisman, Esq.  
Trial Lawyers for Public Justice  
2000 P. Street, N. W.  
Suite 611  
Washington, D. C. 20036

### COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
1. 11s/1201/11s/ 1201 DBA Qualification Test	<p>a) What is the total surface area covered with Imperial Coatings in the sequential order 11s/1201/11s/1201 or 11s/1201/11/1201?</p> <p>b) Explain the basis for this area.</p> <p>c) Are these overlap areas (11s/1201/11s/1201 or 11s/1201/11/1201) entered in the coatings exemption log? Identify the NCR/DCA that covers these items.</p>
2. Specific Sequences of Coatings Systems not identified	<p>a) What is the total surface area covered by coating system sequences which were not DBA qualified? Explain the basis for this area.</p> <p>b) Are these areas in the exempt log? Identify the NCR/DCA that covers these items.</p> <p>c) Provide the procedural requirements for repair sequences that were in effect as of June 1983.</p> <p>d) Why is coating sequencing of repairs different from normal application? Provide engineering justification for change in sequences.</p> <p>e) Is this area included in the exempt log? Identify the NCR/DCA providing justification for including each item in the exempt log.</p>
3. Overcoating Phenoline 305 manufacturer's coating	<p>a) Describe the coating exempt log system - how nonconforming items are identified, dispositioned, and entered into the log.</p> <p>b) Provide a listing of coating exempt log (CEL) entries for Unit 1 showing coating system, plant location and surface area. Indicate total exempted area for the categories of concrete, liner and miscellaneous steel.</p> <p>c) Are Westinghouse and other manufacturer's equipment coatings in CEL? If not, why not? If these coatings are not DBA qualified indicate total surface involved, Explain the basis for the area.</p>

COMMANCHE PEAK COATING ALLEGATIONS

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Allegation (a) No.	Requested Additional Information
4. Richmond Inserts	a) Provide the basis for area figure in item 30 of CEL.
6. Nutech 11s applied over foreign objects	a) How much area is involved? Provide the basis for the area. Identify the NCR/DCA that places this item in the CEL.
7. Repairs of cracks	a) What is your method for incorporating updated manufacturer's recommendations into CPSES procedures? b) When were the recommendations in Imperial's January 16, 1983 letter incorporated into CPSES procedures?
10. Power tool surface preparation DBA	a) Our initial observations are that IR's do not record specific surface preparation tools that were used. Identify documents that show which specific tools were used. b) We understand that there was a time period during which there were no inspection or IR records for surface roughness. What was the time period involved? Identify documents which demonstrate acceptable substrate surface preparation of hand and power tool cleaned surfaces during this period. c) If you cannot provide the information for a & b above, provide engineering basis and test results which show that coatings in question will adhere to the substrate. d) If you cannot provide information in (c) above, provide the total surface area involved and the basis for these figures. Are these areas in the CEL? Identify the NCR/DCA that covers these items. e) Determine whether any updated coating manufacturer's independent DBA tests were performed which would provide an acceptance basis for these items.

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COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
12. 102 mil concrete coating	<p>We see sufficient dissimilarities in the test data attached to your response to conclude that the test data do not apply to this allegation.</p> <p>a) What is the size of the total surface area having this coating system?            b) Explain the basis for this total surface area.            c) Are these areas entered in the coatings exemption log? Identify the NCR/DCA that covers these items.</p>
15. 305/1201 coating	<p>a) What is the size of the total surface area having this coating system (Inorganic zinc over organic topcoat)?            b) Explain the basis for this total surface area number.            c) Are these areas entered in the coatings exemption log? Identify the NCR/DCA that covers these items.            d) We have reviewed a Request for Information or Clarification (RFIC), dated 10/20/83 that authorizes the use of the inorganic zinc top over epoxy. We have also reviewed an earlier RFIC, dated 1/7/83 that does not permit zinc to be applied over epoxy. What is the engineering justification for this change in requirements?            e) Has inorganic zinc actually been applied over epoxy in overlap areas? If so, identify the applicable IR's.</p>
17. Invalid Air Tests	<p>a) Identify those IR's that document cases where defects due to foreign matter in the compressed air were detected and corrected.            b) When was the defective air compressor for paint application replaced?</p>
18. Visual defects not identified	<p>From previous BNL inspections, we understand that the Comments section of the Backfit Program IR's could be used by QC inspectors to identify visual defects. Identify, if any, IR's that document visual defects during the Backfit Program.</p>



COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
19. Backfit Program Vague	<p>a) Provide list of Backfit Program coatings inspectors.</p> <p>b) Provide copy of indoctrination and training (I and T) records for these inspectors.</p> <p>c) Provide copy of training procedures.</p> <p>d) How many times were procedures 11.4-23/24 revised and when?</p> <p>e) Identify documentation of the I and T provided for each revision.</p> <p>The above requested information should cover all levels of personnel involved in the Backfit Program, including quality control supervision and personnel who conducted training of inspectors.</p>
21. Backfit Program Adhesion Test (Elcometer) Calibration	<p>A. <u>Adhesion Tests</u></p> <p>At the July 11, 1984 site meeting, CPSES briefed the NRC Coating Allegation Team members on the overall scope of the Coating Backfit Program. R. Tolson, (TUGCO) informed the team of a discrepancy in calibrating Elcometers used for the coating adhesion test that was discovered <u>after</u> most of the Backfit Program adhesion tests were completed. This discrepancy would allow in-plant test results to be in error by 200 psi in the non-conservative direction.</p> <p>CPSES should revise and correct the original adhesion test data based on dead weight calibration records for each Elcometer used to provide the original test data. The corrected data should then be statistically re-evaluated to establish the fraction (%) of total coated area that passes the 200 psi acceptance level with the stated confidence level. This re-evaluated data should be separately reported for: concrete, containment liner and miscellaneous steel. Describe the method and basis for re-constituting the original test data and establishing the confidence level. Also, describe how the area fraction was established.</p> <p>In providing the above requested information, the following specific information should be supplied.</p>

COMMANCHE PEAK COATING ALLEGATIONS

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Allegation (a) No.

Requested Additional Information

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- a. For each adhesion test sample area in which at least one test reading is below 400 psi, provide:
  1. All test readings for the sample area. If sample area is reworked, give test readings before and after repair.
  2. PCR numbers for all adhesion tests, the area sampled (e.g., 100 ft.<sup>2</sup>), date and Elcometer number.
  3. Calibration readings for that Elcometer at nearest calibration dates before and after testing the sample area.
  4. Corrected readings for the sample area (Field reading - largest positive deviation during calibration period).
- b. For each Elcometer used in the Backfit program, provide a table or curve showing calibration deviations (at the 200 psi point value) as a function of date for the complete Backfit period. In case the instrument zero required adjustment show deviations before and after adjustment.
- c. For each of the three surface types, containment liner surface, concrete surfaces and miscellaneous steel surfaces, provide:
  1. Total area and total area tested for adhesion.
  2. Total area which failed the pull test before repair. (Sum of sample areas represented by at least one failed pull test before repair.)
  3. Fraction of total area tested which failed the pull test before repair.
  4. Number of sample areas tested and average number of tests per sample area.

5. Using the pull test data after correcting for instrument bias (calibration), provide a statistical evaluation of the fraction of the painted area failing the adhesion test, not including the exempted area. Where calibration data are not available, assume an instrument bias of 200 psia. Provide the standard deviation associated with the estimate of the fraction of the total painted area which failed the pull test, based on the corrected data. Construct a 95% upper confidence limit for the proportion of the area which would fail the pull test.
6. Describe how the sample areas (e.g., grids) were selected. Indicate the degree to which the spots actually tested were representative of each sample area.
7. For each item on the Coating Exemption Log involving an area of 1000 ft.<sup>2</sup> or more, describe in detail the method of estimating the area. Provide the total exempted area for each of the three main types of surface.

#### B. Dry Film Thickness Tests

For each of the three surface types, provide:

1. Total area tested for DFT (a) of primer, and (b) of complete coating systems.
2. Total area which failed the DFT test before repair (a) of primer, and (b) for complete coating system.
3. Fraction of total area tested which failed to meet DFT specifications before repair (a) for primer, and (b) for total coat.
4. Number of sample areas tested and average number of DFT tests per sample area (a) for primer, and (b) for the complete coating system.

COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
22. Adhesion tester	Provide information requested for allegation #19 above.
26. DCA's not controlled	a) Describe the system and the requirements to revise the coating specifications to incorporate DCA's. b) Describe the system utilized to control DCA's used by personnel applying or inspecting coatings, as described in the first paragraph of your 6/22/80 response.
27. DCA's approved without QA/QC	a) Provide evidence that demonstrates that "DCA's are routinely checked by Quality Engineering personnel to evaluate their effect on QC procedures and instructions." Is the <u>routine</u> quality check performed prior to or subsequent to the issuance of the DCA.
28. DCA's replace NCR's	Are DCA's tracked and quality trended by QA after issue?
31. Interpretation of SP-6 as "best effort"	a) Provide location of records identifying limited access and inaccessible areas. b) Provide total area of identified limited access and inaccessible areas. Explain the basis for this estimate. c) Indicate the level of supervision that is authorized to determine whether an area is limited access or inaccessible.
33. Inspectors Experience	Provide names, qualification dates and levels, and assignment dates for all individuals who were assigned as lead inspectors or in other quality supervision functions for coatings since January 1982.



UNITED STATES  
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AUG 1 1984

~~JUL 27 1984~~

Docket Nos: 50-445  
50-446

MEETING CANCELLED

TUGCO WILL RESPOND IN WRITING TO REQUEST  
FOR ADDITIONAL INFORMATION (ENCLOSURE

MEMORANDUM FOR: Thomas A. Ippolito, Project Director  
Comanche Peak, DL

TO MEETING NOTICE)  
NO LATER THAN  
AUGUST 13, 1984.

FROM: Annette Vietti, Project Manager  
Licensing Branch No. 3, DL

SUBJECT: FORTHCOMING MEETING WITH TEXAS UTILITIES GENERATING COMPANY  
(TUGCO) - PROTECTIVE COATING PRACTICES AT COMANCHE PEAK

DATE AND TIME: Wednesday, August 8, 1984  
9:00 am - 5:00 pm

LOCATION: Comanche Peak Nuclear Operations Support Facility  
Glen Rose, Texas

PURPOSE: To discuss TUGCO responses of June 22, 1984 to sixty  
allegations about protective coating practices at  
Comanche Peak. See enclosure for additional information  
to be discussed.

PARTICIPANTS: NRC Staff

BNL

P. Matthews  
S. Kirslis

V. Lettieri  
J. Taylor  
W. Wells  
J. Oeschle

Licensee/Applicant Staff - J. Merritt, et. al.

Annette Vietti, Project Manager  
Licensing Branch No. 3, DL

COMANCHE PEAK

Mr. M. D. Spence  
President  
Texas Utilities Generating Company  
400 N. Olive St., L.B. 81  
Dallas, Texas 75201

cc: Nicholas S. Reynolds, Esq.  
Bishop, Liberman, Cook,  
Purcell & Reynolds  
1200 Seventeenth Street, N. W.  
Washington, D. C. 20036

Robert A. Wooldridge, Esq.  
Worsham, Forsythe, Sampels &  
Wooldridge  
2001 Bryan Tower, Suite 2500  
Dallas, Texas 75201

Mr. Homer C. Schmidt  
Manager - Nuclear Services  
Texas Utilities Generating Company  
Skyway Tower  
400 North Olive Street  
L. B. 81  
Dallas, Texas 75201

Mr. H. R. Rock  
Gibbs and Hill, Inc.  
393 Seventh Avenue  
New York, New York 10001

Mr. A. T. Parker  
Westinghouse Electric Corporation  
P. O. Box 355  
Pittsburgh, Pennsylvania 15230

Renea Hicks, Esq.  
Assistant Attorney General  
Environmental Protection Division  
P. O. Box 12548, Capitol Station  
Austin, Texas 78711

Mrs. Juanita Ellis, President  
Citizens Association for Sound  
Energy  
1426 South Polk  
Dallas, Texas 75224

Ms. Nancy H. Williams  
101 California Street  
San Francisco, California 94111

Mr. James E. Cummins  
Resident Inspector/Comanche Peak  
Nuclear Power Station  
c/o U. S. Nuclear Regulatory  
Commission  
P. O. Box 38  
Glen Rose, Texas 76043

Mr. John T. Collins  
U. S. NRC, Region IV  
611 Ryan Plaza Drive  
Suite 1000  
Arlington, Texas 76011

Mr. Lanny Alan Sinkin  
114 W. 7th, Suite 220  
Austin, Texas 78701

B. R. Clements  
Vice President Nuclear  
Texas Utilities Generating Company  
Skyway Tower  
400 North Olive Street  
L. B. 81  
Dallas, Texas 75201

William A. Burchette, Esq.  
1200 New Hampshire Avenue, N. W.  
Suite 420  
Washington, D. C. 20036

Ms. Billie Pirner Garde  
Citizens Clinic Director  
Government Accountability Project  
1901 Que Street, N. W.  
Washington, D. C. 20009

David R. Pigott, Esq.  
Orrick, Herrington & Sutcliffe  
600 Montgomery Street  
San Francisco, California 94111

Anthony Z. Poisman, Esq.  
Trial Lawyers for Public Justice  
2000 P. Street, N. W.  
Suite 611  
Washington, D. C. 20036

ENCLOSURE 3