bcc w/enclosure:
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RF
SF

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

OFFICE						NRB	
SURNAME	cc: See next page					AVietti:pab	
DATE						7/27/84	

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

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cc: See next page

COMANCHE PEAK

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COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.		Requested Additional Information
1.	11s/1201/11s/1201 DBA Qualification Test	a) What is the total surface area covered with Imperial Coatings in the sequential order 11s/1201/11s/1201 or 11s/1201/11/1201? b) Explain the basis for this area. 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.
2.	Specific Sequences of Coatings Systems not identified	a) What is the total surface area covered by coating system sequences which were not DBA qualified? Explain the basis for this area. b) Are these areas in the exempt log? Identify the NCR/DCA that covers these items. c) Provide the procedural requirements for repair sequences that were in effect as of June 1983. d) Why is coating sequencing of repairs different from normal application? Provide engineering justification for change in sequences. e) Is this area included in the exempt log? Identify the NCR/DCA providing justification for including each item in the exempt log.
3.	Overcoating Phenoline 305 manufacturer's coating	a) Describe the coating exempt log system - how nonconforming items are identified, dispositioned, and entered into the log. 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. 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.

COMMANCHE PEAK COATING ALLEGATIONS

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.

COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
12. 102 mil concrete coating	We see sufficient disimiliarities in the test data attached to your response to conclude that the test data do not apply to this allegation. 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.
15. 305/1201 coating	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 NRC/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.
17. Invalid Air Tests	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?
18. Visual defects not identified	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.

COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
19. Backfit Program Vague	a) Provide list of Backfit Program coatings inspectors. b) Provide copy of indoctrination and training (I and T) records for these inspectors. c) Provide copy of training procedures. d) How many times were procedures 11.4-23/24 revised and when? e) Identify documentation of the I and T provided for each revision. 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.
21. Backfit Program Adhesion Test (Elcometer) Calibration	A. Adhesion Tests 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 after 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. 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. In providing the above requested information, the following specific information should be supplied.

COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
	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.^{2}), 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.^{2} 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 routine 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.

COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
34. Material Storage N45.2.2	a) Provide CPSES procedure that governs coating material storage. b) Identify any NCR's that concern coating material storage.
37. Backfit Records	a) Identify NCR's which were present when backfit program discovered errors in previous "acceptable documentation." b) Provide documentation that the original statistical analysis was updated to account for these corrections in your current statistical analyses. (See information request for Allegation 21 above.)
40. Surface Preparation	a) Identify NCR's which document any violation of the cleaning procedure prior to Revision 28.
41. Chloride containing solvent	a) Was this material used to wipe surfaces or not? If so, was it used on coated or substrate surfaces? b) Provide any coating procedures which specify solvents which may be used. c) Identify plant procedures which control the use of chloride containing materials in containment.
42. Richmond inserts	a) Provide revisions of procedures to prevent repetition of these practices.
43. CZ-11 Cure	a) Provide coating procedure which gives requirements for monitoring/verifying temperature and relative humidity during curing of inorganic zinc coatings. b) Was water curing of the zinc coatings ever used and recorded? c) What fraction of the backfit adhesion test failures (less than 200 psi) were zinc cohesive failures. d) What percentage of coatings NCR's involve zinc cohesive failures?

COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
44. Nickel Test	a) Provide procedure and records for training of inspectors for performing the nickel test. Include details and dates of demonstrations by the manufacturer's representative.
45. Re-inspection of repairs	a) Identify procedures addressing limitations on time for re-inspection after major repair. b) What provision is made to assure re-inspection before a repaired area becomes inaccessible? c) Identify procedure governing re-inspection of repairs. d) Identify procedure which governs final QC walkdown inspection.
46. Rust seen through Tooke Gauge	a) Identify all IR's on coating the A frame in Unit 1 Seal Room Elevation 830.
48. Seismic/Expansion joints	a) Were the expansion joints coated? b) If so, provide total area invclved and the method of estimation. c) Is this area in the CEL and what document caused it to be included?
49. Overspray	a) Identify procedures which address "screening." b) Identify documents that provide inspection requirements and acceptance criteria for overspray. c) Will the final QC walkdown include inspection for this item?
51. 50/50 Mix	a) Identify any NCR's attributable to 50/50 mix of Phenoline 305 with thinner. b) Identify inspection procedure for determining that Tooke gauge blades are dull or that specify when a used blade should be replaced.
52. Raw Concrete	a) Identify NCR's/IR's referred to in your response.

COMMANCHE PEAK COATING ALLEGATIONS

Allegation (a) No.	Requested Additional Information
53. RFIC's	a) Identify procedures that govern RFIC's. b) Provide a copy of rescinding order referred to in your response.
55. No repairs for Backfit Unsats	a) Identify the DCA's referred to in your response. b) Are these areas in your CEL? What is the total area involved? Explain the basis for the area.
57. Coating over filth	a) Identify IR's for Unit 2 area described. b) Identify IR's for Unit 1 area described in your response.
58. Light for coating examination	a) Provide technical justification for current procedural requirements with regard to light examinations of surfaces. b) Will the final QC walkdown requirements be the same?
60. Selective use of inspectors	a) Provide record of indoctrination and training on the subject of signatures on IR's which is referred to in your response.

Meeting Notice Distribution

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