

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 1 of 30

- 1.0 Examine the method by which manufacturer's updated recommendations are received, evaluated to determine if new or changed methods or recommendations are appropriate for inclusion in CPSES procedures, and incorporated into CPSES procedures.
 - 1.1 Examine technical bulletins and correspondence from manufacturers which provide new recommendations.
 - 1.2 Verify that there is objective evidence of evaluation and revision of procedures to accomodate recommendations. *7
-

8511070212 851016
PDR FOIA
GARDE85-59 PDR

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 2 of 30

- 2.0 Imperial Coatings letter # _____, dated January 19, 1983, describes _____. In what form and when were these recommendations included in the CPSES procedures?
- 2.1 Verify the date at which the revised procedures were issued for use. *7
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAE CFSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 3 of 30

- 3.0 Verify that surface preparation work procedures have been revised to specify tools to be employed for hand and power tool cleaning.
 - 3.1 Verify that inspection procedures have been revised to provide inspection of surface preparation prior to coating application, and documentation of adequacy of cleaning and surface roughness. *12 *10 @II
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 4 of 30

- 4.0 A Request for Information or Clarification, (RFIC), dated October 20, 1983, provides that an inorganic zinc coating could overlap approximately one inch over the surrounding epoxy (organic) coating at a repair spot. A previous RFIC, dated January 7, 1983, does not permit inorganic zinc applied over epoxy. Examine and evaluate the engineering justification for this change of requirements.
- 4.1 Verify that any procedure revisions appropriate to the engineering basis of this decision have been made. *15 @II
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 5 of 30

- 5.0 Oil or moisture deposited by compressed air during surface preparation or coating application will seriously inhibit the characteristics of an applied coating film. Verify that CPSES procedures provide a method to supply oil and moisture free compressed air supplies. Briefly describe the requirement and method.
 - 5.1 Verify that CPSES procedures provide method to monitor or check the operation of the system used to eliminate detectable quantities of oil and moisture. Briefly describe the method.
 - 5.2 Is there objective evidence which describes the proper operation of the system?
 - 5.3 Do records describe instances where defects (foreign matter) in the air supply are identified and corrected?
 - 5.4 Do records verify adherence to the procedural requirements?
 - 5.5 Is there evidence that secondary techniques not provided by procedures were used to satisfy the compressed air quality criteria? *17
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 6 of 30

- 6.0 Verify that procedures for final walkdown inspection of completed areas provide identification and corrective action for coating defects due to oil or water on substrates. *17
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 7 of 30

- 7.0 Verify that Backfit Program procedures provide a method to document visually defective coatings, and provide a method to track the repair of these areas. *18
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 8 of 30

- 8.0 Examine the CPSES procedure(s) governing Backfit Program inspection activities.
 - 8.1 Briefly describe the principal requirements of the procedure(s).
 - 8.2 List the revision history of the procedure(s), including the effective date of each revision and a brief description of the content (or effect) of substantially revised items. *19 @I
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 9 of 30

9.0 Verify that CPSES procedures describe the basis for the
inclusion of items in the EXEMPT LOG. *3 @VII

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 10 of 30

- 10.0 Verify the functioning of the system for the use of Design Change Authorizations (DCA's.) List any procedures prescribing the DCA system. Examine the functioning of methods used to: *26 *27
- determine whether QA/QC requirements were affected by design changes.
 - obtain QA/QC approval for DCAs affecting quality requirements.
 - identify individuals who are to be notified of design changes.
 - distribute design change documents to those individuals.
 - confirm that notified individuals have received design change documents.
 - confirm that notified individuals have maintained those design change documents during periods between specification revision.
 - evaluate the need for training, and conduct training for production and inspection personnel as appropriate.
 - periodically incorporate design change documents into the specifications.
 - audit the system used to generate, review, and implement DCAs.
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 11 of 30

- 11.0 Review DCA's issued on the coating specifications.
 - 11.1 Verify that DCA's were reviewed to evaluate impact to QA/QC requirements.
 - 11.2 Confirm that there is objective evidence of activities to track the implementation of DCA's.
 - 11.3 Confirm that there is objective evidence of a process in which DCA's are evaluated to detect trends in scope, methods, or rates of occurrence for given areas. *28
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 12 of 30

- 12.0 Prepare a summary list of the manufacturer's storage recommendations for each coating product on site.
 - 12.1 Identify minimum and maximum storage temperatures and the shelf life of each product.
 - 12.2 Verify that CPSES procedures provide measures to obtain updated copies of those recommendations as issued by the manufacturer. *34
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 13 of 30

- 13.0 Review the CPSES procedure governing the storage of coating materials.
 - 13.1 Verify that the procedure provides for the storage of each product within the manufacturer's recommended storage temperature limits.
 - 13.2 Verify that the procedure provides an effective technique to identify and segregate coating materials which have exceeded their shelf life limits, or which are no longer suitable for use. *34
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 13 of 30

- 13.0 Review the CPSES procedure governing the storage of coating materials.
- 13.1 Verify that the procedure provides for the storage of each product within the manufacturer's recommended storage temperature limits.
- 13.2 Verify that the procedure provides an effective technique to identify and segregate coating materials which have exceeded their shelf life limits, or which are no longer suitable for use. *34
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 14 of 30

- 14.0 Review coating material storage records. Verify that records demonstrate compliance with procedural requirements for: *34
- identification of materials.
 - receipt of materials.
 - control of materials.
 - segregation of unacceptable materials.
 - identification of and corrective action for non-conforming conditions.
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 15 of 30

- 15.0 Verify that CPSES procedures provide methods to: *36
- identify coating materials upon receipt.
 - maintain the traceability of coating materials while in storage.
 - maintain the traceability of coating materials issued for use.
 - provide records to demonstrate compliance with procedural requirements for each of these activities.
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 16 of 30

- 16.0 Review records of coating material purchases, and material certifications.
- 16.1 Verify that the Coating Materials Log provides traceability to records of material purchases and certification. *36
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 17 of 30

- 17.0 Verify that CPSES procedures require that applied Phenoline #305 which is more than 30 days old must be solvent-wiped prior to topcoating with additional Phenoline #305.
- 17.1 Identify the solvents employed.
- 17.2 Verify that practices and records document compliance with this requirement. *39
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 18 of 30

18.0 Review CPSES coating procedures for solvent cleaning.
Identify solvents other than aromatic hydrocarbon which are
specified for use. *41 @VI

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 19 of 30

- 19.0 Review CPSES plant procedures which control the use of chloride containing materials.
 - 19.1 Identify any solvent solution provided in coating procedures which contain unacceptable levels of chlorides.
 - 19.2 Verify that analysis of the chloride levels of solvent solutions were performed and documented. *41 @VI
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 20 of 30

- 20.0 Verify that CPSES coating procedures provide an effective method to preclude the use of chloride-containing solvents on stainless steel components, or in the vicinity of stainless steel components.
- 20.1 Verify compliance with the procedural requirements. *41
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 21 of 30

21.0 Verify that CPSES application procedures have been revised to require the removal of freshly applied coatings from protected Richmond Inserts before the coatings are cured.
*42

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 22 of 30

- 22.0 Verify the original date of a procedural requirement that inspectors verify adequacy of primer cure prior to topcoating.
 - 22.1 Establish the extent of coatings applied prior to implementation of this procedural requirement.
 - 22.2 Verify that curing is accepted in inspection records.
 - 22.3 Verify the original date of a procedural requirement providing requirements for time / temperature /humidity during cure of inorganic zinc coatings, or methods approved by the manufacturer to accelerate the curing of these coatings prior to topcoating.
 - 22.4 Examine records of ambient temperatures recorded during primer curing periods prior to the implementation of curing requirements; determine the extent to which available evidence may support or dispute the adequacy of cure for these coatings. *43
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 23 of 30

- 23.0 Verify that CPSES inspection procedures provide for the inspection of repaired areas in a timely fashion upon completion of curing of the coating materials.
- 23.1 Verify that the requirements of this procedure are implemented, and adequate to assure inspection before the area becomes inaccessible. *4
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 24 of 30

- 24.0 Verify that there is a CPSES procedure providing for a final walkdown inspection before turnover of completed areas.
- 24.1 Verify that the walkdown procedure prescribes acceptance criteria.
- 24.2 Verify that the walkdown procedure provides instruction for the identification of coating defects, and an effective method to track the repair of these defects. *45 *49
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 25 of 30

25.0 Identify the CPSES procedures providing the requirements for coating of expansion joints. Verify that procedural requirements were followed; verify that there is objective evidence documenting compliance. *48 @VII

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 26 of 30

26.0 Review procedures which provide for removal of overspray.
Verify that procedural requirements are effective and
implemented. *49

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 27 of 30

- 27.0 Review CPSES procedures which prescribe thinning of Phenoline #305.
- 27.1 Conduct an examination adequate to establish the extent to which improper thinning of Phenoline #305 occurred.
- 27.2 Verify implementation of corrective action, as appropriate.
*51 @VI
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 28 of 30

- 28.0 Review CPSES procedure which provides for verification of the accuracy of Tooke Gauges prior to use.
- 28.1 Verify that the procedure provides a method to prevent the use of dulled cutting tips. *51
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 29 of 30

- 29.0 Verify that coating application and repair procedures have been revised to provide proper methods and sequencing of materials for the use of all coating system combinations in actual use? List all coating system combinations so addressed. *2 @VII
- 29.1 Verify that coatings sequences for repairs are in accordance with manufacturer's recommendations or applicable engineering studies. *2 @VII
-

July 31, 1984 Draft of
BROOKHAVEN NATIONAL LAB CPSES TRT
AUDIT PLAN for AREA IV
PROCEDURES
Page 30 of 30

30.0 Verify that procedure revisions have been made to prevent
recurrence of calibration errors for adhesion testers. *21
@I
