UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
Washington, D.C. 20555

INSPECTION AND ENFORCEMENT MANUAL

INSPECTION PROCEDURE 70343

CONTAINMENT SPRAY SYSTEM TEST
PREOPERATIONAL TEST PROCEDURE REVIEW

PROGRAM APPLICABILITY: 2513

70343-01 INSPECTION OBJECTIVES

011 Ensure that the test procedure is technically adequate and adequately simulates spray system operations.

012 Ensure that the described test is consistent with regulatory requirements, guidance, and licensee commitments.

70343-02 INSPECTION REQUIREMENTS

021 Review test procedure(s) for technical adequacy.

022 Review the FSAR, SER, Technical Specifications, docket correspondence, and Regulatory Guide 1.68 for system design and operational requirements. Verify that the test procedure adequately addresses these requirements and licensee commitments relating to the Containment Spray System.

023 Determine if the test method will adequately simulate spray system operation.

024 Review the test procedure(s) in accordance with IE 70300B.

70343-03 INSPECTION GUIDANCE

031 The review should ensure that important system performance functions are adequately reflected in this test procedure. Examples of items which should be adequately tested as part of the test procedure include (but are not limited to):

a. Redundancy and electrical independence for components and instruments.

b. Proper spray nozzle orientation.

c. Spray nozzles, headers and piping free of debris.

d. System component operation.

e. Automatic system functions.

f. Operability of chemical addition systems.

g. Ability to transfer to the recirculation phase.

h. ESFAS functions.

033 Methods for simulating spray system operation should be examined carefully. Methods successfully used have included air flow indications through each nozzle, streamers attached to the nozzles, and infra-red photographs to indicate flow patterns. Laboratory data on liquid flow patterns through the nozzles should be available from the licensee's file for review.

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