

From: Paul Narbut
To: Ronald Bellamy
Date: 4/21/03 4:08PM
Subject: Inspection at Holtec

This is to inform you, courtesy note, that we are inspecting Holtec in Marlton NJ tomorrow 4/22-24/03

Plan is attached

CC: John Wray; Marie Miller; Randolph Ragland; Robert Lewis; TSSI Inspectors

F-41

April 21, 2003

Holtec International Inspection Plan

Docket Nos: 71-0748 (QA), 71-9261 (HI-STAR Transportation), 72-1008 (HI-STAR Storage), 72-1014 (HI-STORM Storage)

Inspection Report: 72-1014/03-201

Licensee: Holtec International
555 Lincoln Drive West
Marlton, NJ 08053

Inspection Dates: April 22-24, 2003

Inspectors: Paul Narbut, SFPO, Team Leader
Frank Jacobs, Safety Inspector

Background:

Holtec design and QA activities were inspected in 1996 (see IR 72-1008/96-205). That inspection did not identify any violations or nonconformances, in part, because Holtec was not yet a certificate holder. Holtec was inspected in 1999 for fabrication oversight at U.S. Tool and Die (see IR 72-1008/99-201), and in 2000 for a limited question regarding neutron shielding material, NS4FR (see IR 71-0784/00-201). Neither inspection identified significant weaknesses or findings. Holtec was inspected again in September 2001 (IR 72-1014/01-201) and six violations were identified involving inadequate implementation of various aspects of the QA program. Holtec committed to a number of actions in letters dated November 21, 2001, December 31, 2001, February 20, 2002 and two letters dated February 4, 2002. An additional inspection of fabrication oversight was performed in February 2002 (Form 591 report 72-1014/02-201). Two violations for inadequate control of nonconforming material were identified. Holtec provided a voluntary response dated April 10, 2002.

Region IV led a dry run team inspection at Columbia Generating Station (CGS) in July 2002. Hydrogen was observed in the spent fuel pool emanating from the Holtec cannister. The Holtec FSAR stated that hydrogen was not credible. Holtec revised the FSAR to recognize hydrogen using 72.48. The region IV inspection report treated the issue as an unresolved item and remanded it to SFPO by a TAR. Some SFPO staff believes that NRC approval was required to make that change because they categorize the possibility of a hydrogen burn as a new accident. Two violations have been proposed one against 72.48 and one against 72.146 design.

Inspection Purpose and Assignments

The purpose of the inspection is to resolve the issues identified in the Region IV TAR. Those issues are:

1. Determine if NRC approval was required to change the FSAR
Action: COMPLETED BY SFLS. Approval was required per SFLS. SFLS to present case to Holtec via telephone during the inspection.

2. TSSI review, pursuant to item 1. above, determined that a violation for inadequate design control was warranted.

Action: Narbut present to Holtec

3. Determine if the pre-passivation process was qualified by Holtec. Were tests of passivation done under the QA program?

Action: Narbut examine

4. Determine if there is evidence that aluminum is the problem. Holtec had suggested that impurities in the Boral may be the source of hydrogen. Were the purchase specifications for Boral adequate to preclude impurities? Did Boral meet purchase specification?

Action: Narbut/Jacobs dialog with Holtec materials expert. Engage SFPO materials people if required.

5. Determine if swelling of the Boral will be a problem.

Action: COMPLETE. Completed by SFLS/TRD in response to the TAR.
Not a problem, no reference document.

6. The TAR response states that the current (revised under 72.48) FSAR recommends purging if hydrogen is above a certain level. The TAR response states that should be a requirement, not a recommendation.

Action: COMPLETE: Holtec, Gutherman, stated in a 4/17 telephone call with Narbut that the matter had been discussed with O'Connor and Holtec will change the FSAR.

7. Review a sample of Holtec 72.48 screenings and evaluations to assess the adequacy of the 72.48 program implementation. Use 60857. Also assess the 72.48 procedure adequacy. Sample the 72.48 for the hydrogen FSAR change.

Action: F Jacobs

Inspection Procedures:

60857, "Review of 10 CFR 72.48 Evaluations" Design Control of ISFSI Components"
NUREG 6314, "Quality Assurance Inspections for Shipping and Storage Containers"

Contacts: Holtec

Dr. K.P. Singh, President and CEO

856 797 0900 x636

Dr. Alan I Solar, Executive VP
Michael McNamarra, VP Nuclear Projects
Brian Gutherman, Licensing Manager
Mark Solar, QA Manager
Conference room

856 797 0900 x636
856 797 0900 x605
856 797 0900 x668
856 797 0900 x619
x648

Lodging: Extended Stay America
1653 E State Hwy 70
Cherry Hill, NJ 08034
856 616-1200

Inspection Report: 72-1014/03-201

Starfire Codes: RAP, ROA, RAT, and RAF(inspection), RBJ (prep and doc), RFT (travel)

Per diem: Marlton/Cherry Hill 74/42/116

Cars (POV) Narbut, Passenger Jacobs,

Schedule:

Travel Out 4/22 POV
Return 4/24

Entrance at Holtec 4/22 at 10:00 am
Exit 4/24 at 12:30 pm

Workday 730am-515 pm

Report Inputs

Provide a short narrative for each area assigned above. Cover what was looked at, and what was found.

Write in third person, past tense, active voice.

Report will be a full report

Report Writing Responsibilities

EXECUTIVE SUMMARY

Narbut

1. Inspection Scope

Narbut

2. Findings

Narbut/Jacobs

3. Conclusions

Narbut

4. Exit Meeting

Narbut

Inspection Responsibilities

IP 60857 72.48 Evaluations

02.01 Sample evaluations

Jacobs

02.02 Review changes screened out Nonconforming Conditions

Jacobs

02.03 Perform program review

Narbut/Jacobs

Follow up items

Region IV UNR