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November 5, 1979

Docket No. 50-213

Mr. Boyce H. Grier, Director  
Region I  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Reference: (1) B. H. Grier letter to W. G. Council dated June 25, 1979,  
transmitting I&E Bulletin No. 79-13.

Gentlemen:

Haddam Neck Plant  
Feedwater System Piping

In Reference (1), the NRC Staff documented its requirements regarding investigations and examinations of feedwater system piping which were applicable to the Haddam Neck Plant. With the docketing of Attachment 1, A Summary Report of the NRC I&E Bulletin No. 79-13 Inspection Results, Connecticut Yankee Atomic Power Company (CYAPCO) has fulfilled the requirements of Item (6) of Reference (1).

As stated in the conclusion section of the Attachment, the investigations completed to date have not identified any unacceptable components of the feedwater system piping at the Haddam Neck Plant.

We trust you find the attached information responsive to your request.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY

*W. G. Council*  
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W. G. Council  
Vice President

Attachment

By: *W. F. Fee*  
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W. F. Fee  
Vice President

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ATTACHMENT

HADDAM NECK PLANT

A SUMMARY REPORT  
OF THE NRC I&E BULLETIN NO. 79-13 INSPECTION RESULTS

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## 1.0 INTRODUCTION

Plant cooldown was commenced at Connecticut Yankee on September 28, 1979, to perform the inspections of (1) the steam generator feedwater nozzle to elbow welds and (2) the feedwater system piping supports and snubbers inside containment as required by NRC IE Bulletin 79-13. The volumetric inspections of the steam generator feedwater nozzle to elbow welds and subsequent evaluation of the inspection results were completed on October 2, 1979. The visual inspection of the feedwater system piping supports and snubbers was completed on October 4, 1979.

## 2.0 PURPOSE

The purpose of this report is to present a summary of the inspection results in accordance with Item 6 of IE Bulletin 79-13 dated June 25, 1979.

## 3.0 DISCUSSION

The feedwater piping system inside containment was fabricated in accordance with the American Standard Code for Pressure Piping, ASA B31.1. In addition, all field welds in the feedwater piping system were 100 percent radiographed.

The steam generator feedwater nozzle to elbow welds are 14" sch. 80, while the remaining feedwater system piping is 12" sch. 80. The steam generator feedwater nozzle/pipe configuration consists of the feedwater nozzle to 14" x 12" reducing elbow and subsequent 12" piping. The steam generator feedwater nozzle material is ASTM A-105, Grade II, material, while the reducing elbow and remaining feedwater piping materials are ASTM A-234 WPB (fittings) and ASTM A-106, Grade B, materials, respectively.

A review of the original radiographs and the applicable specifications confirmed that the steam generator feedwater nozzle to elbow welds were single V-butt weld joints including metallic backing rings. The weld joints are equal thickness joints since no counterbore/machining is evident in the radiographs.

## 4.0 INSPECTION RESULTS

### 4.1 Steam Generator Feedwater Nozzle to Elbow Welds

4.1.1 The steam generator feedwater nozzle to elbow welds were examined by qualified Peabody Testing Corporation personnel in accordance with the requirements of Item 1 in NRC IE Bulletin 79-13 dated June 25, 1979. The evaluation of the RT inspection results was performed by Westinghouse, NUSCO, and CY personnel. An authorized code inspector was present

to witness the steam generator feedwater nozzle to elbow inspection and subsequent evaluation of the inspection results. The evaluation acceptance criteria was in accordance with ASME Section III, Subsection NC, Article NC-5000.

4.1.2 The summary of the NRC IE Bulletin 79-13 examination results is presented below:

A. Steam Generator Feedwater Nozzle to Elbow Weld (SG-E-6-1-1)

1. Two short in-line linear indications exist at the weld root centerline. The same indications exist in the original acceptance radiographs. The dimensions of the linear indications are the same as in the original acceptance radiographs and therefore they have not propagated during operation since 1967. Furthermore, the linear indications are within the acceptance criteria of ASME III-5320 and thus do not constitute unacceptable code discontinuities.
2. Parallel lines extending circumferentially were observed in the nozzle base material. The observed lines exist in the original radiographs at the same locations. The parallel lines were confirmed to be OD indications; they appear to be grinding and/or machining marks on the nozzle OD.

B. Steam Generator Feedwater Nozzle to Elbow Welds (SG-E-6-2-1, SG-E-6-3-1, SG-E-6-4-1)

The existence of parallel/single lines was observed on the nozzle side of the above nozzle to elbow welds. All observed indications exist to some extent at the same locations in the original radiographs. The observed indications are grinding and/or machining marks on the nozzle OD.

Based on the evaluation performed by Westinghouse, Connecticut Yankee and NUSCO personnel, it is concluded that no cracking as observed at other PWR units nor other unacceptable code discontinuities were detected in the steam generator feedwater nozzle to elbow welds and adjacent base material at Connecticut Yankee.

4.2 Feedwater System Piping Supports and Snubbers

All feedwater piping supports and snubbers inside containment were visually inspected for operability and conformance to design. Some discrepancies were identified, reviewed, and dispositioned under the IE Bulletin 79-02 and 79-14 programs. These discrepancies were of little consequence and did not affect the operability of the feedwater pipe support system.

5.0 CONCLUSION

- 5.1 No cracking as observed at other PWR units was detected in the steam generator feedwater nozzle to elbow welds and adjacent base material at Connecticut Yankee.
- 5.2 No unacceptable code discontinuities exist in the steam generator feedwater nozzle to elbow welds at Connecticut Yankee.
- 5.3 The feedwater piping supports and snubbers inside containment were confirmed to be operable and in conformance with design requirements.

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