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

July 31, 1991

The Honorable George Miller, Chairman
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed are responses to requests from Dr. Henry Myers of your staff concerning Seabrook Welds.

Sincerely,

Dennis K. Rathbun, Director
Congressional Affairs
Office of Governmental and
Public Affairs

Enclosures:
As Stated

cc: The Honorable Don Young

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RESPONSE TO CONGRESSIONAL STAFF
INQUIRY 57

GENERAL COMMENT:

Questions B & C appear to refer to Field Weld CS-369-10,F1006, which was the subject of a Notice of Violation, issued with Inspection Report 50-443/82-06, and closed in Inspection Report 50-443/82-15. The specific reference for Inspection Report 82-15 is:

> The licensee has performed additional film reviews to verify that this was a unique occurrence and now utilizes more sensitive film.

The responses to Questions B & C are based upon this assumption.

Question B

As noted above, IR 82-15 stated that the licensee performed additional film reviews to verify that the deficiencies in Weld CS-369-10,F0708 (sic) was a unique occurrence. Did the licensee document the review referred to in IR 82-15? [Please provide any such documentation.]

Response B

Licensee corrective action commitments, documented in letters to the NRC dated September 27 and November 22, 1982, and provided as part of the response to Congressional Staff Inquiry 56, stated that Pullman-Higgins would review 10% of the previously accepted radiographs of weld geometry similar to Field Weld CS-369-10,F1006. This review constituted the "additional film reviews" referenced in Inspection Report 82-15.

Excepting the letters of September 29 and November 22, 1982, no licensee documentation has been identified which specifically addresses the conduct of the radiograph review by Pullman-Higgins.

Question C

As a result of the IR 82-06 findings, did either the NRC or licensee conduct a review of radiographs approved prior to IR 82-06 (in addition to that referred to in Item A above) for the purpose of determining whether the deficiencies in the NDE process that led to the failure to detect the defect in Weld CS-369-10,F0708 had resulted in failures to detect similar defects in other welds? Please provide documentation of any such review.

Response C

The NRC staff conducted no additional review of radiographs approved prior to IR 82-06 with the specific intent of addressing the report's findings except as was necessary to review corrective actions for the welds identified as requiring follow-up in IR 82-06. NRC inspections of radiographic film conducted both prior and subsequent to inspection 82-06 have identified no similar cases of Pullman-Higgins field welds.

With respect to the licensee's corrective actions, other than the 10% sample review conducted by Pullman-Higgins, the staff knows of no additional film review (excepting the "normal" YAEC review as part of the Pullman-Higgins turnover of film packages). Documentation of related licensee efforts that have not already been provided to the Congressional staff is a licensee letter (October 29, 1982) responding to the NRC Systematic Assessment of Licensee Performance (SALP) for the period August 1, 1981 to July 31, 1982. This letter addresses the licensee's actions relative to the Category 3 rating received in "Piping Systems and Supports" and the finding of Inspection Report 82-06. The October 29, 1982 letter and the referenced SALP report are attached.

Question D

IR 82-06 stated that weld SI-204-02,F0202 has linear indications which appear in the NRC radiograph but not the licensee's (sic). This can be accounted for by differences in techniques. The licensee's radiographs appear to meet the ASME requirements.

1. What explanation, in light of the licensee's radiographs meeting the ASME code, has been obtained for the difference between the NRC's radiographs and those taken by the licensee?

2. Where is any such explanation documented?

Response D

1. The independent radiography of welds conducted by the NRC staff during the conduct of the inspection documented in 50-443/82-06 utilized a type of film (EKC type M) with a slower speed than the Type AA film used by Pullman-Higgins in the initial radiography of Field Weld SI-204-02, F0202. The ASME code allows the use of faster speed film (e.g., type AA) as long as the resulting radiographs meet all ASME Section V acceptance criteria (e.g., density, sensitivity). Use of a more sensitive film could identify indications that a less sensitive film would not show. The code requires the correction of rejectable indications. It should be noted that a weld could appropriately be found acceptable under the code by a less sensitive authorized film yet have indications that would be identified using a more sensitive film. It should be pointed out that design conservatisms in the ASME Code accommodate the defects that may not be identified when using different radiographic techniques. The correct film sensitivity is assured by the Code requirement that a specific hole size on a penetrameter be visible on the exposed film. The fact that a more sensitive film could identify indications not exposed on a less sensitive film does not negate the validity of the results when using less sensitive film in accordance with the ASME Code.

The original licensee radiographs for Field Weld SI-204-02,F0202 met ASME Code requirements. As is documented in the licensee supplemental response dated November 22, 1982 to the IR 82-06 findings and in NRC Inspection Report 50-443/83-02, the licensee's re-radiography of field weld SI-204-02,F0202 utilizing Type M film resulted in rejectable indications similar to those in the NRC radiographs. This weld was repaired in accordance with Nonconformance Report 4066, a copy of which has been previously provided to the Congressional staff. The licensee also committed in response to IR 82-06 to utilize EKC Type M film where practical in the future.

2. The explanation requested above is documented in the licensee's letter of November 22, 1982 responding to the IR 82-06 findings; in Inspection Report 50-443/83-02, Paragraph 3e, which closes the unresolved item with respect to this weld; in Inspection Report 50-443/82-15, Paragraph 3e, which closes the IR 82-05 violation indicating the licensee use of more sensitive radiographic film; and also in Pullman-Higgins Nonconformance Report 4066 which was sent to the Congressional staff in June 1990 in response to Dr. Myers' Request XVIII.

RESPONSE TO CONGRESSIONAL STAFF
INQUIRY 58

Your summary of the salient points concerning Response B of Congressional Staff Request 56 is essentially accurate except for the description of NRC inspection activities. Presently, the NRC staff has found no licensee documentation that specifically addresses the 10% radiograph review by Pullman-Higgins. Since the conduct of additional Pullman-Higgins radiograph reviews was routinely documented by the reviewer initialing or signing the Radiograph Inspection Report, the 10% sample review may have been documented in this manner; however, the NRC has no evidence documenting this possibility as fact. Additionally, in Inspection Report 50-443/82-15, the NRC inspector indicated that sufficient evidence was provided by the licensee to justify closure of the violation concerning Field Weld CS-369-10,F1006 as an open inspection item. Additional inspection and documentation of this item was not required.