

MAY 18 1983

The Honorable Orrin G. Hatch  
Chairman, Committee on Labor and  
Human Resources  
United States Senate  
Washington, D.C. 20510

Dear Mr. Chairman:

We have reviewed your request for information which was transmitted with Barbara Newman's letter to Carlton Kammerer dated April 25, 1983. We understand that this information would be helpful to clarify allegations of Gary Boring concerning illegal procedures and faulty welds at nuclear power plant sites.

The NRC staff has compiled the requested information which is included in the enclosure in question and answer format.

We believe that the provided answers are responsive to your request.

Sincerely,

(Signed) William J. Dircks

William J. Dircks  
Executive Director for Operations

Enclosure:  
Questions/Answers

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QUESTION 1. First, it would be helpful to get a statement about the process the NRC follows in assuring quality control. It was pointed out that this is essentially within the purview of the licensee, with the NRC inspection process providing spot checks.

ANSWER

The NRC inspection program is a planned sample inspection approach based on the premise that the licensee is responsible for ensuring the proper design, construction, testing and safe operation of the facility in accordance with technical and quality commitments included in his Safety Analysis Report (SAR).

The NRC inspection effort can be viewed as the apex of a pyramid of inspections, audits and controls within the nuclear industry. Beneath this apex are the layers of inspections, audits and controls implemented by the NRC licensee and his contractors.

NRC inspectors take a vertical slice to an appropriate depth through the inspection, audit and control pyramid. Thereby they determine whether the licensee's Quality Assurance activities and those of his contractors are effectively ensuring compliance with NRC requirements and hence the health and safety of the public.

The NRC inspection effort is conducted in accordance with a defined program expressed in detailed inspection procedures and is accomplished at prescribed intervals by NRC field inspectors. The principal objective is to provide reasonable assurance that NRC licensed activities are being conducted safely and in compliance with NRC requirements. The defined program works through selective examination of systems and functions, both physical and administrative, which have an impact on the adequacy of the design, construction, testing and safe operation of nuclear power plants.

QUESTION 2. Second, on June 28, 1982, Chairman Palladino informed Senator Hatch in a letter that a change to the NRC inspection program is being issued which provides for specific identification of the person observed taking the welder qualification test. Senator Hatch was told that resource limitations dictate that this program was to be a sampling program. We would like to know the extent of the program as of this date.

ANSWER

Our inspection procedures have always included provisions to sample welder qualification records and verify adequacy of the welder qualification procedures. The revised inspection procedures emphasize the need for safeguards to preclude falsification of welder or welding operator qualifications and provide positive identification of the person making the test weldment. The NRC construction assessment team (CAT) has reviewed 52 welder qualifications at two sites which are in addition to the routine inspections conducted by regional and resident inspectors. These CAT inspections also included review of radiographs for 158 welds (approximately 1804 individual radiographic films) which represent an additional review of welder workmanship.

QUESTION 3.

Third, from our meeting last week we learned that there are more than 100,000 welds on a nuclear reactor; that over 15,000 are safety-related and that there is no special screening process regarding individuals doing the welding there. We would like a statement regarding this data, just to clarify the issue and to obviate mis-statements.

ANSWER

The total number of welds involved in the construction of a nuclear power plant is estimated to be well in excess of 100,000 welds per plant. There are more than 15,000 critical pipe welds including about 2,200 of which are safety-related butt welds. The ASME boiler and pressure vessel code, Section III, governing plant construction requires that individuals doing the welding are qualified and that the welds be nondestructively examined. There is no special screening process of individuals doing the welding other than that required by the ASME Code. The Code requires that the welders are qualified by test performed under the full supervision and control of the manufacturer, contractor, assembler or installer. For butt welds in Class 1 and 2 piping of 2-inch and larger diameter, the code requires a 100% radiography examination (i.e., a volumetric examination similar to clinical x-radiography). The weld quality is evaluated in accordance with the acceptance criteria specified in the Code. Since the radiography identification is keyed to weld identification on the quality control documentation which identifies the particular welder, each radiograph of a weldment is in effect a measure of the welder's workmanship in terms of skill and adherence to code required weld quality. The completed systems are also required to be hydrostatically tested in excess of design conditions for physical strength and tightness.

QUESTION 4.

Fourth, following the gist of our conversation on Friday, there was a consensus that NRC regulations predicate a labor force assembled and working within a lawful framework. Given the allegations of widespread selling of union cards, of ringers taking welding tests and fabrication of tests, we would like a statement from NRC regarding the implications of workers on nuclear reactors coming from an environment of labor corruption.

ANSWER

As discussed above and as provided under NRC Regulations, 10 CFR 50, Appendix B, the licensee has the basic responsibility to insure its processes and labor force meet required quality standards. However, it is recognized that the effectiveness of quality assurance activities is based on human factors and no system of procedures and controls can offer absolute protection against willful deceit. Where the NRC receives specific allegations of deceit such as those in your question, NRC pursues such allegations and, where indicated will institute formal investigation. Arrangements are in place to request Justice Department action where evidence indicates the potential for criminal activities having occurred. However, certain aspects of the above allegations relate to quality assurance matters for which corresponding initiatives, as mentioned above, have been taken by the NRC.

In addition, the NRC resident inspector program provides an important continuing presence and periodic surveillance of quality assurance programs at nuclear plant sites.



*action - Taylor R. Heishman*

FROM: <b>Sen. Orrin G. Hatch</b> (Barbara Newman, Special Investigator)		ACTION CONTROL	DATES	CONTROL NO.
		COMPL DEADLINE	5/11/83	13071
		INTERIM REPLY		DATE OF DOCUMENT
		FINAL REPLY		4/25/83
TO: <b>Carlton Kammerer</b>		FILE LOCATION		PREPARE FOR SIGNATURE OF:
				<input type="checkbox"/> CHAIRMAN
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DESCRIPTION <input checked="" type="checkbox"/> LETTER <input type="checkbox"/> MEMO <input type="checkbox"/> REPORT <input type="checkbox"/> OTHER			SPECIAL INSTRUCTIONS OR REMARKS	
Q's fm meeting re the allegations of Gary Boring concerning illegal procedures and faulty welds at nuclear power sites			<p><u>PRIORITY</u></p> <p><i>For Carl input from request I get</i></p> <p>SECY -83-1744</p> <p><i>Please return to Joyce for a closeout + dispatch.</i></p>	
ASSIGNED TO	DATE	INFORMATION ROUTING		
DeYoung, IE	4/27/83	Dircks		
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		GCunningham		
		LUnderwood		
		<i>DeYoung</i>		
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☐ \_\_\_\_\_ ☐ Inspector & Auditor \_\_\_\_\_  
☐ \_\_\_\_\_ ☐ Policy Evaluation \_\_\_\_\_

Incoming: Barbara Newman

From: Special Investigator--Sen Hatch

To: Kammerer Date 4/25/83

Subject: addl comments as well as questions re  
illegal procedures and faulty welds at nuclear power siteXXX ☐ Prepare reply for signature of:☐ Chairman☐ Commissioner \_\_\_\_\_XXX ☒ EDO, GC, CL, SOL, PA, SECY, IA, PE

Date due: May 5

☐ Signature block omitted☐ \_\_\_\_\_☐ Return original of incoming with response☐ For direct reply\*☐ For appropriate action☐ For information

RF, OCA

Remarks: \_\_\_\_\_

For the Commission: billie

\*Send three (3) copies of reply to Secy Correspondence and Records Branch

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