

New Hampshire Yankee  
July 3, 1991

ENCLOSURE 1  
REPORT OF WELD RECORDS ANOMALY FOR FIELD WELD 1-CBS-1201-07-F0701

REPORT OF WELD RECORDS ANOMALY  
FOR FIELD WELD 1-CBS-1201-07-F0701

**I. Introduction**

In the April 10, 1991 Public Meeting between New Hampshire Yankee (NHY) and the NRC, and as provided in the NHY Program Description for the Reverification of Pullman-Higgins Field Weld Records, transmitted to the NRC on May 13, 1991, NHY agreed to provide the NRC with a written report of any weld record anomalies within 72 hours of the determination that a report was required. Accordingly, the following is a report of an identified records deficiency. NHY determined that this anomaly required NRC notification on July 2, 1991.

The identified deficiency is a lack of the Radiographic Inspection Report (RIR) and radiographic film for Pullman-Higgins field weld 1-CBS-1201-07-F0701. NHY has evaluated this record deficiency and has determined that it does not adversely affect or call into question the physical quality of weld 1-CBS-1201-07-F0701 or other Seabrook Station welds at this time. The following provides the code requirements, a description of the identified deficiency, cause of the deficiency, corrective actions which are to be implemented, and a justification for continued operation regarding the identified deficiency.

**II. Code Requirements**

American Society of Mechanical Engineers (ASME), Section III, Subsection NCA-4134.17, "Quality Assurance Records", and American National Standard Institute ANSI N45.2.9 - 1974, entitled "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants," state that radiographic review forms and radiographs are to be retained for the lifetime of a nuclear power plant.

**III. Description of the Deficiency**

Pullman-Higgins field weld 1-CBS-1201-07-F0701 is a circumferential groove weld on a fourteen inch diameter section of piping in the Containment Building Spray (CBS) System. This section of the CBS System is ASME III, Class 2, and Safety Class 2. This weld connects a 45° long radius elbow to a section of piping. This weld is located in the line between the Refueling Water Storage Tank (TK-8) and the suction side of the "B" train Containment Building Spray Pump (CBS-P-9B). This line also provides a source of water for the "B" train Safety Injection Pump (SI-P-6B) and the "B" train Residual Heat Removal Pump (RH-P-8B). The weld is physically located inside the tank farm between the Refueling Water Storage Tank (RWST) and the bermed wall. A currently available Quality Assurance (QA) document, the Pullman-Higgins Field Weld Process Sheet, demonstrates that this field weld was radiographed in 1983 in accordance with the Non Destructive Examination (NDE) requirements contained in the 1977 Edition of ASME Section III up through and including the Winter 1977 Addenda (the Code applicable to Seabrook Station).

The weld records package for weld 1-CBS-1201-07-F0701 has not yet been located and may be misfiled or inadvertently discarded. It is currently believed that the RIR and the radiographs for this weld were never transmitted by Pullman-Higgins to Yankee Atomic Electric Company (YAEC) QA/NDE personnel for review and that the records were never transmitted to the Seabrook Yankee Document Control Center (SBYDCC) for final vault storage. Based on the above, the lack of weld record documentation for this weld does not meet the record retention requirements of ASME NCA-4134.17 and ANSI N45.2.9.

NHY Nuclear Quality Group (NQG) personnel have reviewed the available engineering documentation regarding this weld and have concluded that the lack of the RIR and radiographs for this weld does not call into question the quality of this weld. Review of the weld process sheets for 1-CBS-1201-07-F0701 indicates that this weld was completed on February 11, 1983, and on February 16, 1983 an external visual examination of this weld was performed. The attributes of this visual examination included weld reinforcement, undercut, arc strikes, removal of purge dams, presence of joint and welder identification, and suitability of the NDE performed. Nuclear Quality Group review of the field weld process sheet and the related Pullman-Higgins procedures have determined that the initials of the Level II and the ANI indicate that the procedures had been completed and the radiographic film showed the weld to be of acceptable quality. Other currently available QA documentation also demonstrates that the radiographic records for this weld were reviewed as part of the Pullman-Higgins N-5 as built Seabrook Station records verification process.

Additionally, this weld was ultrasonically tested in 1983 and deemed to be acceptable. The results are documented on the Pullman-Higgins' Field Weld Process Sheet.

#### IV. Cause of Deficiency

NHY has reviewed the identified records deficiency and has determined its cause to be personnel error on the part of Pullman-Higgins records management personnel. The Pullman-Higgins records management personnel apparently misfiled or inadvertently discarded the radiograph and the RIR prior to the transfer of records to YAEC for review and failed to transmit these documents to the SBYDCC for ultimate archival in the Seabrook Station records management system.

#### V. Corrective Actions

NHY has determined that the appropriate corrective actions for this records deficiency are to: 1) complete a radiographic examination of field weld 1-CBS-1201-07-F0701; 2) review the film in accordance with our present program requirements; and 3) include the radiograph and the required radiographic review forms in the NHY records management system. When completed, actions 1, 2 and 3 above will ensure compliance with the Code. NHY will complete these corrective actions during the refueling outage currently scheduled to begin on July 27, 1991.

If similar anomalies are found during the conduct of the balance of the Weld Records Reverification Project, long-term corrective actions will include the evaluation of such anomalies, as a group, for generic implications and possible additional corrective actions.

## VI. Justification for Continued Operation

The following provides a Justification for Continued Operation (JCO) of Seabrook Station for the time period between the determination that the aforementioned weld record deficiency required NRC notification and the time that corrective actions for the deficiency are implemented. This JCO demonstrates that the identified weld records deficiency does not produce any reduction in the protection provided for the health and safety of the public.

As provided in Section III above, NHY has conclusively determined that the radiographic film for field weld 1-CBS-1201-07-F0701 existed and was read by qualified reviewers and the weld was determined to be of acceptable quality as indicated on the weld process sheet.

The design pressure and design temperature of this section of the Containment Building Spray (CBS) System piping are 53 psig and 280°F respectively. ASME Code Case N-240, as endorsed by Regulatory Guide 1.84 eliminates the requirements to perform an integrity test of line segments connected to the atmosphere. However, with consideration of the Code Case this portion of the containment spray line was successfully tested for physical integrity on February 3, 1986. This test subjected the weld and piping out to the first isolation valve (CBS-V-5) to a test pressure of approximately 18.1 psig from the standing water in the Refueling Water Storage Tank. The integrity test utilized the RWST Technical Specification minimum value of 477,000 gallons which yields a standing head of approximately 41.9 feet. Records of this test are available at Seabrook Station. There are no records of any discrepancies that would cause the integrity of field weld 1-CBS-1201-07-F0701 to be questioned. This portion of the CBS System between the outlet of the RWST and the bermed wall is currently in service at approximately 79°F and 18.1 psig and has been in service since the issuance of the operating license.

Based on the above, there are no outstanding questions regarding the quality of this field weld and thus no outstanding questions regarding the integrity of the Containment Building Spray System or any systems which utilize the common suction line from the RWST. Additionally, the CBS System was extensively tested during preoperational and startup testing. Moreover, this system has been operating at normal plant temperatures and pressures for the past year. Throughout testing and operation, no problems with this weld have been identified. Therefore, since the identified records deficiency does not compromise the integrity of the CBS System, nor affect the operation of Seabrook Station, there is no reduction in the protection provided for the health and safety of the public.

NHY has also performed a safety evaluation for this JCO and has determined that an unreviewed safety question does not exist. Specifically, since the identified records anomaly does not compromise the integrity of the CBS System, it does not increase the probability or consequences of accidents or malfunctions previously evaluated in the Final Safety Analysis Report (FSAR). The mere presence of a records anomaly does not introduce a new failure mechanism nor does it modify the plant in any manner so as to create the possibility of a new accident or malfunction occurring. This records anomaly does not provide any means for an increase in the dose from any previously analyzed accident as it does not make any changes to the plant or its design basis. The margin of safety as defined in the basis for any technical specification will not be reduced by this records anomaly since it does not

compromise the integrity of the CBS System nor affect the operation of Seabrook Station.

Based on the foregoing, the identified records anomaly does not present an unreviewed safety question as it does not compromise the integrity of the CBS System, nor affect the operation of Seabrook Station. Thus, this records anomaly does not reduce the protection provided for the health and safety of the public.