



Chicago Bridge & Iron Company

8900 Fairbanks North Houston Road
P O Box 40066
Houston, Texas 77040
713 466 7581

December 7, 1982

United States Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Attn: Mr. Uldis Potapovs, Chief
Vendor Program Branch

RE: Response to Nuclear Regulatory
Commission Notice of Nonconformance
Chicago Bridge and Iron Company
Docket No. 99900097/82-02

Dear Mr. Potapovs:

This letter is in response to the Notice of Nonconformance by your Mr. W. D. Kelley as a result of his October 4-7, 1982 inspection at CBI's Birmingham, Alabama plant.

The Chicago Bridge and Iron Company Nuclear Quality Assurance Program, as described in the Nuclear Quality Assurance Manual (QAM), was developed to assure compliance with the requirements of the ASME Boiler and Pressure Vessel Code, Section III, during construction of the component. The quality assurance provisions of NCA-4000 of Section III of the ASME Code parallel Appendix B to 10 CFR 50. Specifically, paragraph 6.7.1 of Section 6.0, Division 2 of the QAM addresses the methods of handling conditions adverse to quality which are found before the component is turned over to CBI's customer. The applicability of the QAM ceases when the customer takes possession of the component.

CBI addresses conditions which may be adverse to quality and which are found after delivery to CBI's customer by implementing CBI Standard 8500-6. This standard covers the specific detailed procedure to be followed to assure compliance with 10 CFR 21. Paragraphs 1.0b and 1.0c require reporting to CBI's Director of Corporate Quality Assurance deviations in CBI produced items found after delivery to our customer and conditions reported to CBI by a vendor in fulfilling their obligations under 10 CFR 21. Neither of these conditions is considered to apply in this case.

8303150594 830218
PDR QA999 EMVCHIB
99900097 PDR

United States Nuclear Regulatory Commission
Mr. Uldis Potapovs, Chief

December 7, 1982
Page 2

Never the less, the lock problems discussed in the NRC Notice of Nonconformance did receive corporate management attention and were handled generally as described in CBI Standard 8500-6 with the exception that the report was sent directly to the Chief Engineer. CBI Standard 8500-6 was issued in December 1977. One of the first reports subsequent to issuance of this Standard is R. L. Bentley's (engineering supervisor for personnel locks) letter dated January 30, 1978 to Mr. L. P. Zick (CBI Chief Engineer). The last paragraph of page 1 of this letter states:

"In addition to the manual, we should also provide our customers with suggested modifications to the drive boxes, transfer box and main hinge shaft extension. These are areas where we have had the most complaints. The modifications are shown on enclosed drawings 1 and 2."

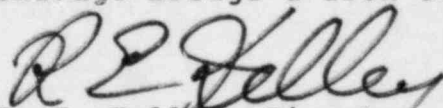
(See exhibit 1 for copy of this letter)

Chief Engineer L. P. Zick's letter to R. L. Bentley acknowledged his letter and suggested that preliminary measures be initiated to organize a plan by which CBI would contact the owners of CBI fabricated locks suggesting certain modifications be considered if they had been experiencing difficulties. (See exhibit 2)

In summary, we feel the issuance of the CAR form identified in CBI Nuclear Quality Assurance Manual, paragraph 6.7.1, of Section 6.0, Division 2, would have been inappropriate. The lock problems were addressed through CBI procedures which included, in part, the implementation of CBI Standard 8500-6.

It is CBI's contention that the adverse condition addressed in the NRC Notice of Nonconformance was properly processed utilizing the appropriate internal CBI mechanism.

Very truly yours,
Chicago Bridge & Iron Company


R. E. Kelley, Director
Corporate Quality Assurance

REK/jer

EXHIBIT 1

cc: J. G. Tucker - DBE
cc: J. Hagstrom - OB Engr.
cc: J. W. Stubert - DBE
cc: RLB

January 30, 1978

TO: MR. L. P. ZICK
OAK BROOK ENGINEERING

SUBJECT: CBI PERSONNEL LOCKS FOR NUCLEAR CONTAINMENT VESSELS

In order to minimize the complaints we have had from customers on locks in service, we planned to produce an addenda to the operating manuals which have been previously provided to our customers.

We have prepared a sample package to illustrate what would be included in this addenda to the manual. A copy is enclosed, which consists of:

1. Completely revised text for general operating procedure, maintenance, and adjustment of the personnel lock.
2. New illustrations to go with the revised text including illustrations for lubrication.
3. Emergency procedures to be followed in the event a malfunction prevents normal passage from the containment thru the lock.

We feel this package should be made available to all of our customers who have our standard personnel lock in service. (Those customers who have received our new manual, which includes this information, are to be excluded)

In addition to the manual, we should also provide our customers with suggested modifications to the drive boxes, transfer box and main hinge shaft extension. These are the areas where we have had the most complaints. The modifications are shown on enclosed Drawings 1 and 2.

DESIGNATED ORIGINAL
Certified By Rheanne Clark

A number of alternatives were considered for the format of the addenda to the manual. We feel it is necessary to provide essentially a rewrite of the personnel lock section tailored to the particular lock under consideration. This is due to variations in shaft seals, interior door tie-downs, door stops, door restrictor bolts, door size, violation of interlock, parts list, opposite hand door swing, etc. Many of these variations are common to specific "runs" of locks therefore standard pages can be prepared for insertion into the rewrite for that particular "run".

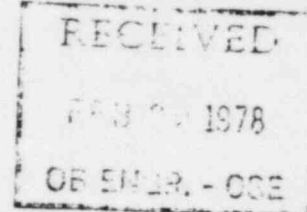
If this is an acceptable method of providing our customers with the information they need for performing meaningful maintenance and adjustment of the personnel locks, we will proceed with a tabulation of specific contracts to which it is applicable.

R. L. BENTLEY
Birmingham Engineering

1a

EXHIBIT 2

cc: ~~J. Hagstrom~~ - OB OSE
J. G. Tucker/J. W. Stubert - Birmingham Engrg.
J. T. Dunn - OB Gen. Sales w/att. (Letter only)
~~J. H. Trammell/W. R. Carn /L. P. Zick w/att. (Letter & Manual)~~
KWL/JRM/WWK/WRM - OB Engrg. w/att. (Letter only)
C. R. Patterson - OB Oper'ns w/att. (Letter only)



February 2, 1978

MR. R. L. BENTLEY
BIRMINGHAM ENGINEERING

RE: CBI PERSONNEL LOCKS FOR NUCLEAR CONTAINMENT VESSELS

I have reviewed briefly your letter of January 30, 1978 together with the attached package including an updated Operating and Maintenance Manual. I want someone in Ross Carn's Group as well as in John Hagstrom's Group to review the detailed context. This will take a little time.

In the meantime, I think it would be quite helpful to have an updated list of customers who you feel should be sent an updated Operating and Maintenance Manual. I agree that it will take some effort to make the updated manual applicable to a particular customer. However, this should be relatively straight forward once we agree on a general format such as you have assembled.

I intend to explore with our Sales Department, through Jim Dunn, how this should be handled. Once we have a plan we will also run it by Legal.

The most difficult task in my mind will be to prepare a letter transmitting suggested modifications where the customers have experienced operating problems with the lock because of abuse during operation. We will attempt to draft such a letter here for review by all parties. Again, after agreeing on a typical approach, it will be necessary to review each contract to make it applicable.

LEONARD P. ZICK
OAK BROOK ENGINEERING

bd

DESIGNATED ORIGINAL

Certified By

Rheanne Clark

INTEROFFICE CORRESPONDENCE

CHICAGO BRIDGE & IRON COMPANY