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

February 3, 1983

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

Attention: Mr. Uldis Potapovs, Chief Vendor Program Branch FEB - 7 1983

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 your letter dated January 13, 1983, which asks for additional information concerning customer notification by CBI, of certain lock problems.

Since Mr. Kelley's audit, we have made a comprehensive review to determine precisely what information has been sent to each of our lock customers, at the time of the original construction and at a later time when new information became available. The results of this review are as follows:

- A. All locks purchased after January 1, 1974 utilized a new design which substantially reduced the potential for door rebound. The Operating and Maintenance Manual for these locks included a set of specific periodic maintenance instructions which further minimized the possibility of door rebound.
- B. The Operating and Maintenance Manual applicable to all locks purchased after January 1, 1970 included a set of specific periodic maintenance instructions which minimized the possibility of door rebound.
- C. All owners of locks purchased before January 1, 1974 received a letter from CBI covering the following:
  - The importance of a regular and thorough maintenance program which follows the instructions included in the Operation and Maintenance Manual.

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- The necessity to incorporate the Extrication Procedure into the existing Operating and Maintenance Manual. (See Exhibit 1 for a sample of this letter.)
- D. Some owners of locks purchased before January 1, 1974 also received a letter which described some recommended modifications to the lock mechanisms. These modifications would reinforce the existing lock so that it would offer similar capabilities to the new mechanism introduced in 1974. (See Exhibit 2 for a sample of this letter.)
- E. The notification letter identified as Exhibit 1 was appropriate for locks purchased after January 1, 1970, however, for the locks purchased prior to that time the applicable Operating and Maintenance Manual did not contain the specific instructions for swing rod adjustments which, when properly executed, would minimize the possibility of door rebound.

Exhibits 1 and 2 provide an indication of CBI's interest and efforts to notify lock owners that certain preventative and remedial measures should be executed in order to insure proper operation of the lock. As a result of the extended phase of our review, we are presently in the process of completing the notifications as follows:

- The owners of all locks purchased before January 1, 1970 will be issued an Operating and Maintenance Manual Addendum which describes specific procedures for swing rod adjustments. These adjustments will minimuze the potential for door rebound.
- 2. In addition, the owners of locks purchased before January 1, 1974 will be provided with a set of recommended modifications which will reinforce the existing lock so that it will offer capabilities similar to the new style mechanism introduced in 1974.

We believe the new letters along with our previous letters will result in complete information being in the hands of our customers who have the older locks and older Operation and Maintenance Manuals.

If I can be of further service, please let me know.

Very truly yours,

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CHICAGO BRIDGE AND IRON COMPANY

Ralph E. Kelley, Director Corporate Quality Assurance

REK/jer Attachments

## EXHIBIT 1



800 Jorie Boulevard Oak Brook, Illinois 60521 312 654 7000

July 23, 1981

Rancho Seco 14440 Twin Cities Road Herald, California 95638

Attn: Mr. Piere Oubre

RE:

Containment Vessel Personnel Airlock Operating and Maintenance Manual-Extrication Procedure Upgrading Rancho Seco Nuclear Power Station

## Gentlemen:

CBI has recently completed a comprehensive review of the Operating and Maintenance Manuals provided with the personnel airlocks fabricated and installed by CBI in nuclear containment vessels dating back to 1964. The primary purpose of the review was two fold; a) to assess the importance of a regular and thorough maintenance program and b) to provide clear and concise instructions which rescribe procedures to follow in the unlikely event that the lock mechanism malfunctions.

To meet the first of these two objectives, CBI hereby asks the Owners and Operators to carefully review and follow the maintenance schedule and instructions included in the Operating and Maintenance Manuals issued at the same time of delivery. Our study shows that the life of the mechanical mechanism will be significantly improved with careful operating techniques and regular maintenance.

To meet our second objective, we have enclosed 3 copies of an updated Extrication Procedure. This procedure has been improved to provide more explicit and detailed instructions which describe the steps required to extricate oneself from the inside of the vessel or lock in the unlikely event that the mechanical drive system has malfunctioned. Although we do not anticipate this type of malfunction, we strongly urge you to keep a copy of this procedure along with the appropriate tools inside the containment vessel in an area adjacent to the lock and another copy with the required tools inside the lock. Finally, we ask that you insert a copy of the Extrication Procedure into all of your operating and maintenance manuals.

Very truly yours,

Thomas J. Ahl Supervisor

Nuclear Design Group

TJA/1p Enclosures Certified By Phlande Clerk

## EXHIBIT 2

January 25, 1930

Detroit Edison Company 2000 Second Avenue Detroit, Michigan 48226

Attention: Mr. W. S. Colbert Project Engineer

> ENRICO FERMI ATOMIC POWER PLANT UNIT #2 EDISON PURCHASE ORDER IC-70020 CBI CONTRACT 69-5562

## Gentlemen:

It is CBI's policy to continually review and improve our products. Our Engineering Department has suggested improvements to our design for nuclear containment airlocks since your airlock was built.

The attached Figures 1 thru 5 describe how these improvements might be added to your lock. Since these are relatively minor, and can be retrofitted to existing airlocks, CBI is making available the details of this modification to owners of our early model airlock. We believe the attachments to be self explanatory but should you have any questions, or if we can supply a quotation for parts or installation, please do not hesitate to contact us.

We must caution you that the attached information is based on airlocks as originally furnished by CBI. The modifications outlined in this letter may not be appropriate for your airlock if any prior modifications have been made.

In addition, unusually heavy use of the lock may result in a wide variance of damage to the mechanism. The modifications recommended in the attached figures are based on the assumption that all other elements in the mechanism are undamaged and functioning properly.

Cortified by Rheanne Clark

Page 2 January 25, 1980 Detroit Edison Company

These other elements must be thoroughly inspected and refurbished in order to insure that the recommended modifications will be effective.

A thorough engineering review of the airlock should be made for modifications before our suggestions are acted upon.

Very truly yours,

CHICAGO BRIDGE & IRON COMPANY

Thomas D. Mathern Contracting Engineer

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