

August 27, 1980

In reply, please
refer to LAC-7106

DOCKET NO. 50-409

Mr. James G. Keppler
Regional Director
U. S. Nuclear Regulatory Commission
Directorate of Regulatory Operations
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: DAIRYLAND POWER COOPERATIVE
LA CROSSE BOILING WATER REACTOR (LACBWR)
PROVISIONAL OPERATING LICENSE NO. DPR-45
REPORTABLE OCCURRENCE NO. 80-05

- Reference: (1) LACBWR Technical Specifications,
Section 3.9.2.a.(6).
(2) LACBWR Technical Specifications,
Section 2.4.2.5.
(3) DPC Letter, LAC-7074, Linder to Keppler,
dated August 7, 1980.

Dear Mr. Keppler:

In accordance with the provisions of Reference (1), this submittal constitutes the required follow-up report describing the occurrence which was initially reported in Reference (3). The initial report discussed the existence of a 1/2" brass globe valve, found in the closed position, on the Shutdown Condenser shell.

An investigation was conducted to determine the circumstances which permitted the installation of a modification to the shell of the Shutdown Condenser which consisted of the addition of a water treatment chemical injection and system.

During normal operations the shell side of the Shutdown Condenser contains water which is maintained plus or minus six inches of the shell centerline. Since this water is relatively stagnant, chemical treatment was regarded as desirable to reduce the potential for corrosion on the shell internal sides and tube bundle external sides.

Plant records indicate that water treatment chemicals were initially added on or about December 9, 1971. It is the recollection of senior staff members that this chemical addition was made through a 1/2" gauge connection on the top of the condenser shell. At that time,

to the best of our knowledge, the gauge connection consisted of a capped 1/2" pipe nipple welded to the shell. It is possible that a 1/2" nipple and cap fitting was authorized and installed by Allis-Chalmers when they maintained a Provisional Operating Authorization or by the Atomic Energy Commission when the plant was under construction or it was factory installed prior to shipment to the site.

The existence of the gauge connection is noted in Section 5.3.1 of Volume II of the LACBWR Operating Manual (for the Shutdown Condenser), however, any fitting attached to this connection is not identified.

Assuming that the capped connection was installed prior to initial plant startup, several pressure tests for leak-tightness of the Containment Building and penetrations were conducted by Allis-Chalmers and DPC while the capped connection was in place. These tests effectively proved the leak-tightness of the capped connection.

Records indicate that a temporary pump system was installed using this connection to inject chemicals on December 13, 1971. It is believed that this system incorporated Tygon tubing suction and discharge lines. From examination of data sheets, Shift Supervisor's logs and Health Physics logs, it has been concluded that the pump system was hard-piped and operated on April 20, 1972. (See Figures 1 and 2). No evidence of a design change document exists for this modification nor for the Tygon tubing system. Records further support that a Facility Change had been initiated in September 1973 and brief mention of Facility Change 73-23 appears in the February 11, 1974 minutes of the Operations Review Committee as an outstanding item, which gave evidence that the Facility Change had not yet been approved.

It is believed that the system has remained intact as originally installed and that since April 20, 1972, the system has undergone several successful containment leakage tests. This would tend to indicate that in the absence of valve identification on a valve checklist that the individuals using this system from time to time were in the habit of closing the necessary isolation valves. Furthermore, a degree of control existed in that Health Physics Technicians were instructed by approved procedure to return valves to their normal position after sampling as a generic rule.

The installation of a chemical injection and sampling system by staff personnel without design change approval constituted personnel error. The subsequent removal of the undocumented system and restoration to the original plant configuration without design change approval and post-modification testing also constituted personnel error.

Mr. James G. Keppler
Regional Director

IAC-7106
August 27, 1980

Upon realization that the system was installed in the absence of an approved Facility Change, the piping, valves, pump and tubing were removed and pipe caps installed on the gage connection and the 1/2 inch test connection.

On August 6, 1980, the safety significance of the installation of the chemical addition system was discussed by the plant Operations Review Committee. It was concluded that during the years the system was installed and used, containment integrity could have been reduced in the event a valve not appearing on a valve check-list had been left open. When the installation was inspected prior to removal, the valve at the gage connection was found closed.

On August 7, 1980, a test rig was prepared and the pipe cap on the top side of the Shutdown Condenser was tested for leak tightness. The leak rate was 0.00109 SCFH, well within the acceptance criteria of 0.375 SCFH. (1% of L_{PO} , where L_{PO} is 37.5 SCFH). The pipe cap on the bottom test connection was not tested since double valve isolation already exists.

A Licensee Event Report (Reference: Appendix A, Regulatory Guide 1.16, Revision 4) is enclosed.

Authorization for this report to be submitted beyond the fourteen day reporting period was granted to L. Goodman by K. Ridgway on August 20, 1980.

Should you have any questions regarding this report, please contact us.

Very truly yours,

DAIRYLAND POWER COOPERATIVE

Frank Linder, General Manager

FL:LSG:af
Enclosure

cc: Director, Office of Inspection & Enforcement (40)
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Director, Office of Management Information & (3)
Program Control
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

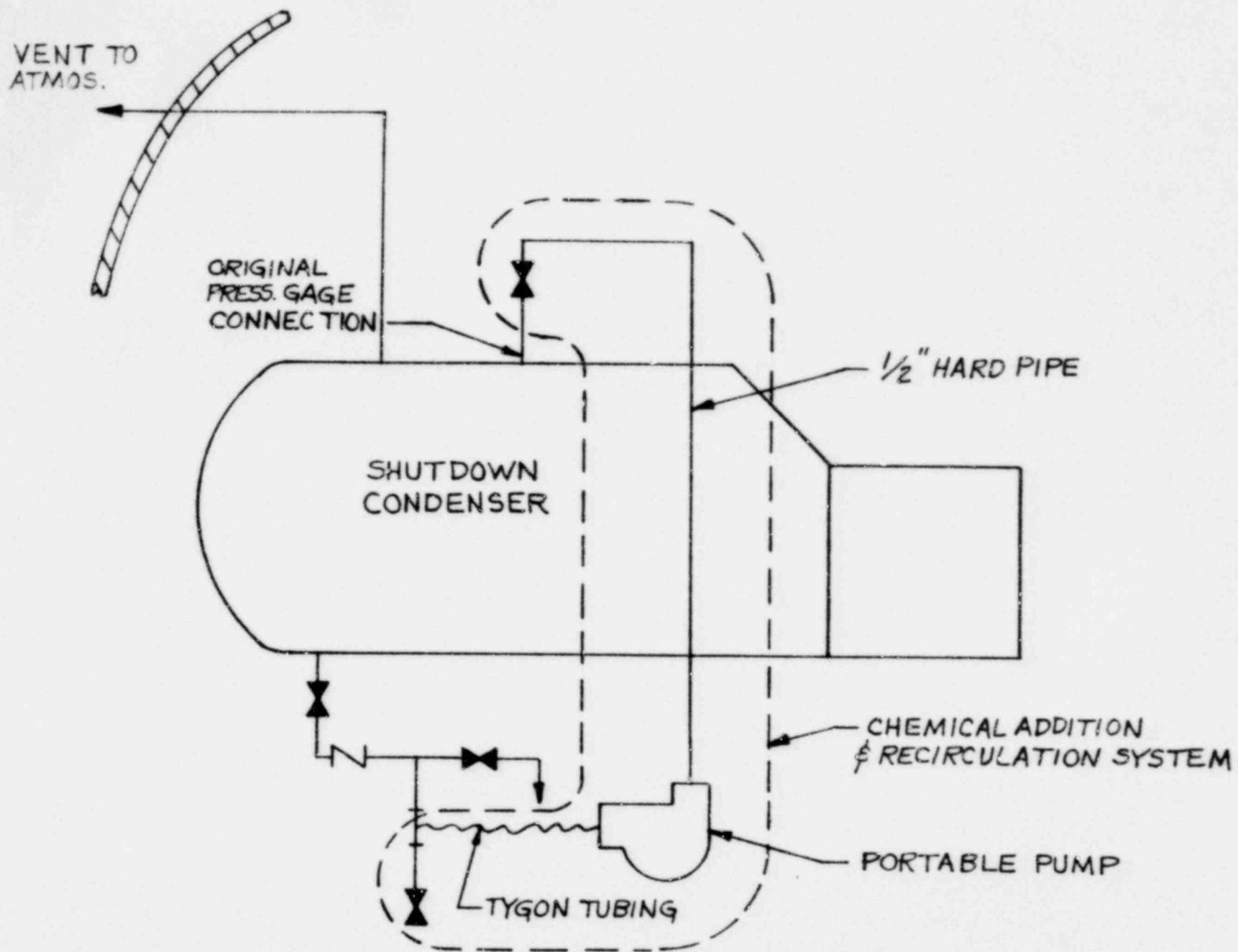


FIGURE 1

