

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of
Niagara Mohawk Power Corporation }
(Nine Mile Point Unit 2)

Docket No. 50-410

APPLICATION FOR EXEMPTION
FROM CERTAIN REQUIREMENTS
OF
10 CFR 50 APPENDIX J

Pursuant to Section 50.12 of the Commission's Regulations (10 CFR 50.12), Niagara Mohawk Power Corporation, holder of a facility construction permit authorizing the construction of the Nine Mile Point Nuclear Station Unit 2 (Docket No. 50-410), hereby makes application for exemption from certain provisions of 10 CFR 50 Appendix J, "Reactor Containment Leakage Testing for Water Cooled Power Reactors." The specific exemption requested is stated below. Justification demonstrating that the proposed exemption will not endanger life or property or the common defense and security and is otherwise in the public interest is included.

Appendix J of 10 CFR 50 requires inter alia preoperational and periodic verification by tests of the leak-tight integrity of systems and components which penetrate primary containment of water-cooled power reactors. Niagara Mohawk Power Corporation hereby requests exemption from the testing requirements set forth in 10 CFR 50 Appendix J for certain isolation valves on the Hydraulic Control System for the Reactor Recirculation Flow Control Valves. The justification for this requested exemption is provided in Attachment A.

8509040284 850903
PDR ADDOCK 05000410
A PDR

WHEREFORE, the Applicant respectfully requests that the proposed exemption to the requirements of 10 CFR 50 Appendix J for said isolation valves be granted.

Niagara Mohawk Power Corporation

By

Ce Mangan

Subscribed and sworn to before me on
this 28 day of August 1985

Janis M. Macro
Notary Public

JANIS M. MACRO
Notary Public In the State of New York
Qualified In Onondaga County No. 4784555
My Commission Expires March 30, 1987...

10

11

12

13

14

15

16

17

18

19

20

21

ATTACHMENT A

Hydraulic Control System for Reactor Recirculation Flow Control Valves

System Description

The Hydraulic Control System for the Reactor Recirculation System Flow Control Valves operates to control the reactor recirculation flow during normal operation. Basically, the system provides hydraulic fluid through eight containment penetrations (Z99A, Z99B, Z99C, Z99D, Z100A, Z100B, Z100C, Z100D) to the hydraulic operators on the two recirculation flow control valves. A schematic of the system is shown in Figure 1 and 2.

The hydraulic line's leakage path does not directly communicate with the environment following a loss-of-coolant accident; the system is within the reactor building. The system leakage boundary piping components are designed as Quality Group B between the containment isolation valves and Quality Group D outside the isolation valves, as defined by Regulatory Guide 1.26. The system leakage boundary is designed to withstand a Safe Shutdown Earthquake and is protected against pipe whip, missiles and jet forces in a manner similar to that for engineered safety features. The system does not communicate with either the reactor coolant boundary or containment environment. The integrity of the system is essentially constantly monitored because of indications provided on the hydraulic control unit.

Isolation and Testing Capabilities

Isolation is accomplished by redundant Quality Assurance and Seismic Category 1 solenoid operated isolation valves. Note that for containment isolation of closed systems only one valve is required, but two valves are provided. To vent and/or drain the hydraulic system, the system would need to be disabled. The Reactor Recirculation System should be available to provide a cooling flow path through the reactor core during the Type A test to prevent thermal stratification in the core region.

Conclusion

These lines should, therefore, be exempted from 10 CFR 50 Appendix J Type A testing requirements, to be vented and drained during the integrated leakage test.

Further, this change will not endanger life or property or the common defense and security because of special design considerations such as the system leakage boundary is protected against pipe whip missiles and jet forces in a manner similar to engineered safety features and other measures described above.

THE UNIVERSITY OF CHICAGO
LIBRARY

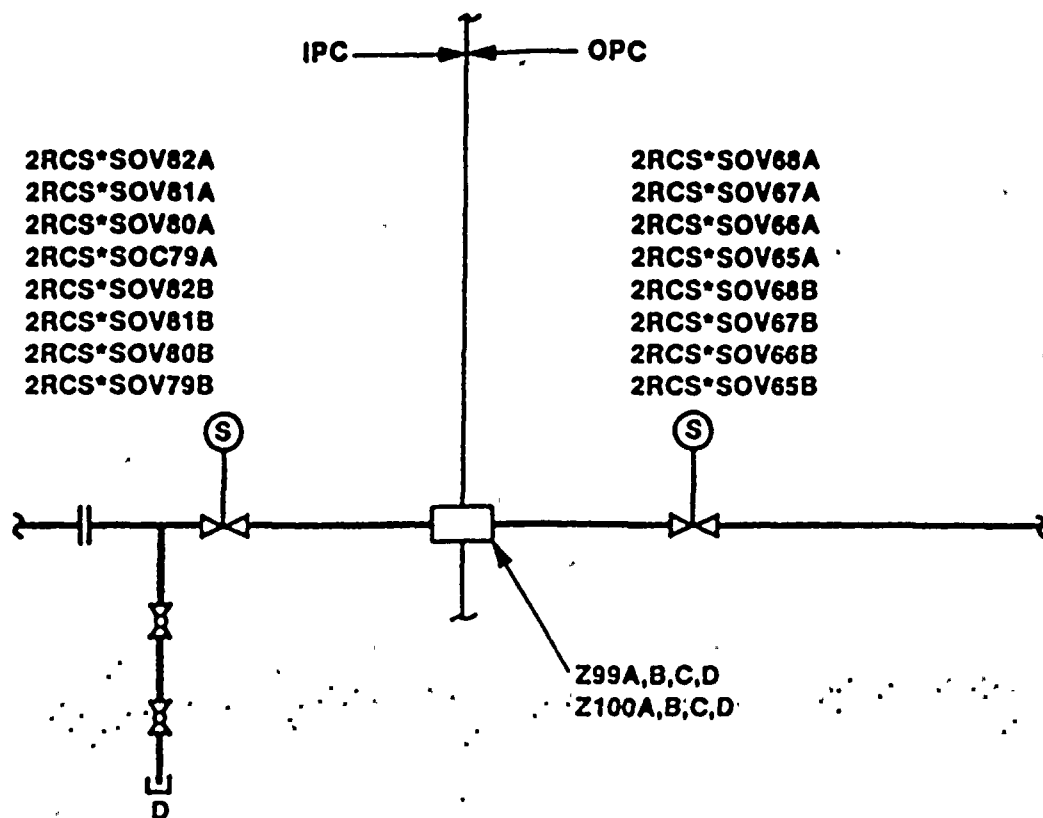
THE UNIVERSITY OF CHICAGO
LIBRARY
1207 EAST 58TH STREET
CHICAGO, ILL. 60637
TEL. 733-4331

THE UNIVERSITY OF CHICAGO
LIBRARY
1207 EAST 58TH STREET
CHICAGO, ILL. 60637
TEL. 733-4331

THE UNIVERSITY OF CHICAGO
LIBRARY
1207 EAST 58TH STREET
CHICAGO, ILL. 60637
TEL. 733-4331

THE UNIVERSITY OF CHICAGO
LIBRARY
1207 EAST 58TH STREET
CHICAGO, ILL. 60637
TEL. 733-4331

THE UNIVERSITY OF CHICAGO
LIBRARY
1207 EAST 58TH STREET
CHICAGO, ILL. 60637
TEL. 733-4331



Z-99A—D, Z-100A—D HYDRAULIC POWER UNIT
TO RECIRC FLOW CONTROL VALVE

FIGURE 1

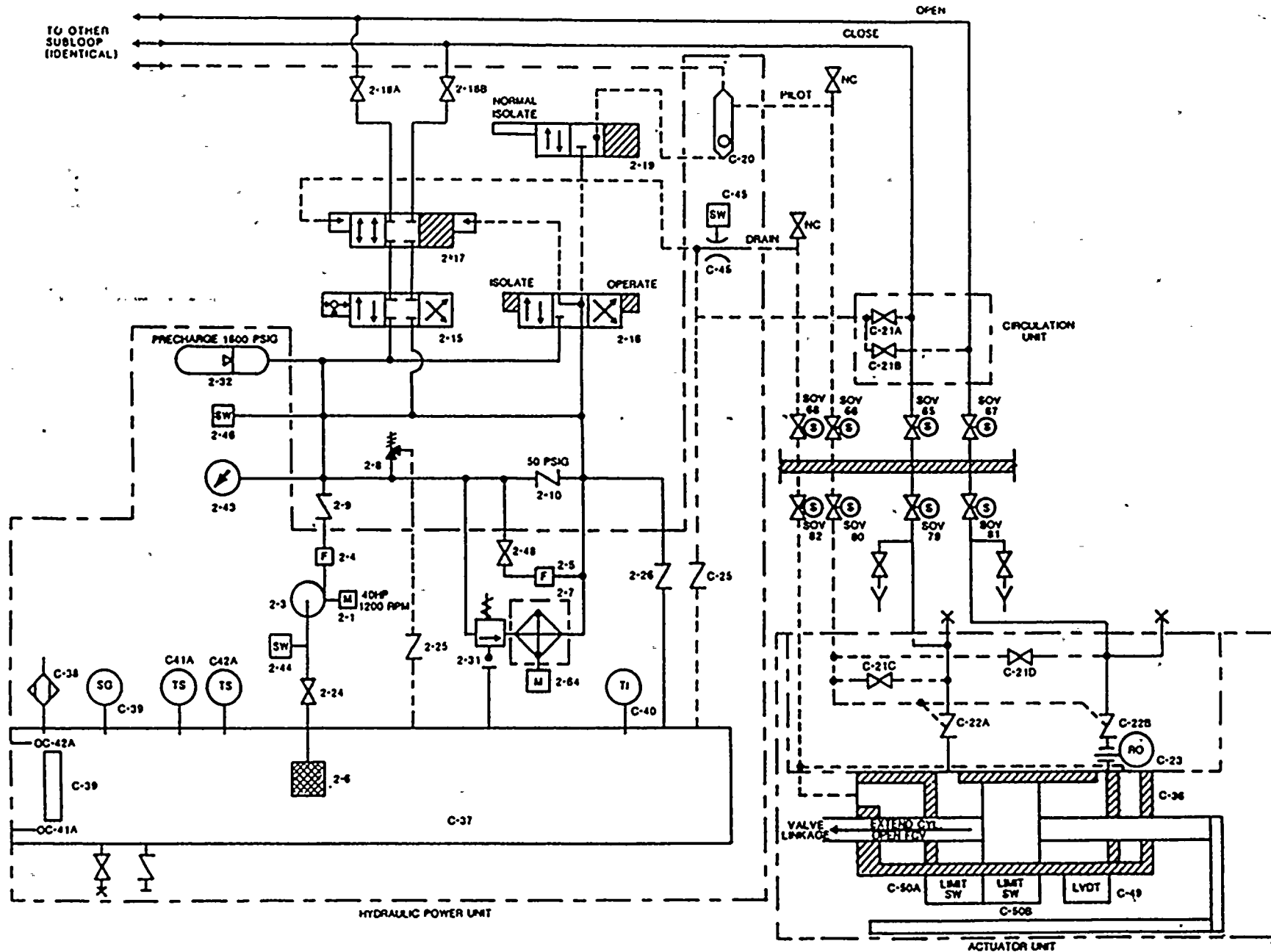


Figure 2

Rev.

Title:

HYDRAULIC SCHEMATIC

