



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 7, 1997

52-410

Mr. B. Ralph Sylvia
Executive Vice President Generation
Business Group and Chief Nuclear Officer
Niagara Mohawk Power Corporation
450 Lake Road
Oswego, NY 13126

SUBJECT: TEST DATA ON PRESSURE LOCKING OF MOTOR-OPERATED GATE VALVES

Dear Mr. Sylvia:

By letter dated January 31, 1997, Mr. M. McCormick, Jr., requested certain data from NRC sponsored tests on pressure locking of motor-operated gate valves.

The requested data are provided in the form of two computer disks, which are being forwarded directly to Kalsi Engineering, Inc., as requested by Mr. McCormick.

Enclosure 1 is a sketch of the instrumentation arrangement (Figure 3) installed on the valves for the tests and Enclosure 2 is a listing of the instrumentation channels (Table 1) which should aid in understanding the data. Instructions for uncompressing and loading the data files are also included as Enclosure 3.

The two disks were prepared from work sponsored by an agency of the United States government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility of any third party's use, or the results of such use, of any information disclosed on the disks, or represents that its use by such third party would not infringe privately owned rights.

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B. Ralph Sylvia

- 2 -

February 7, 1997

If I can be of further assistance regarding this matter, please call me at 301-415-3049 or Mr. Gerald H. Weidenhamer at 301-415-6015.

Sincerely,

/S/

Darl Hood, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-410

- Enclosures: 1. Figure 3
- 2. Table 1
- 3. Instructions

cc w/encls: See next page

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B. Ralph Sylvia

- 2 -

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Sincerely,

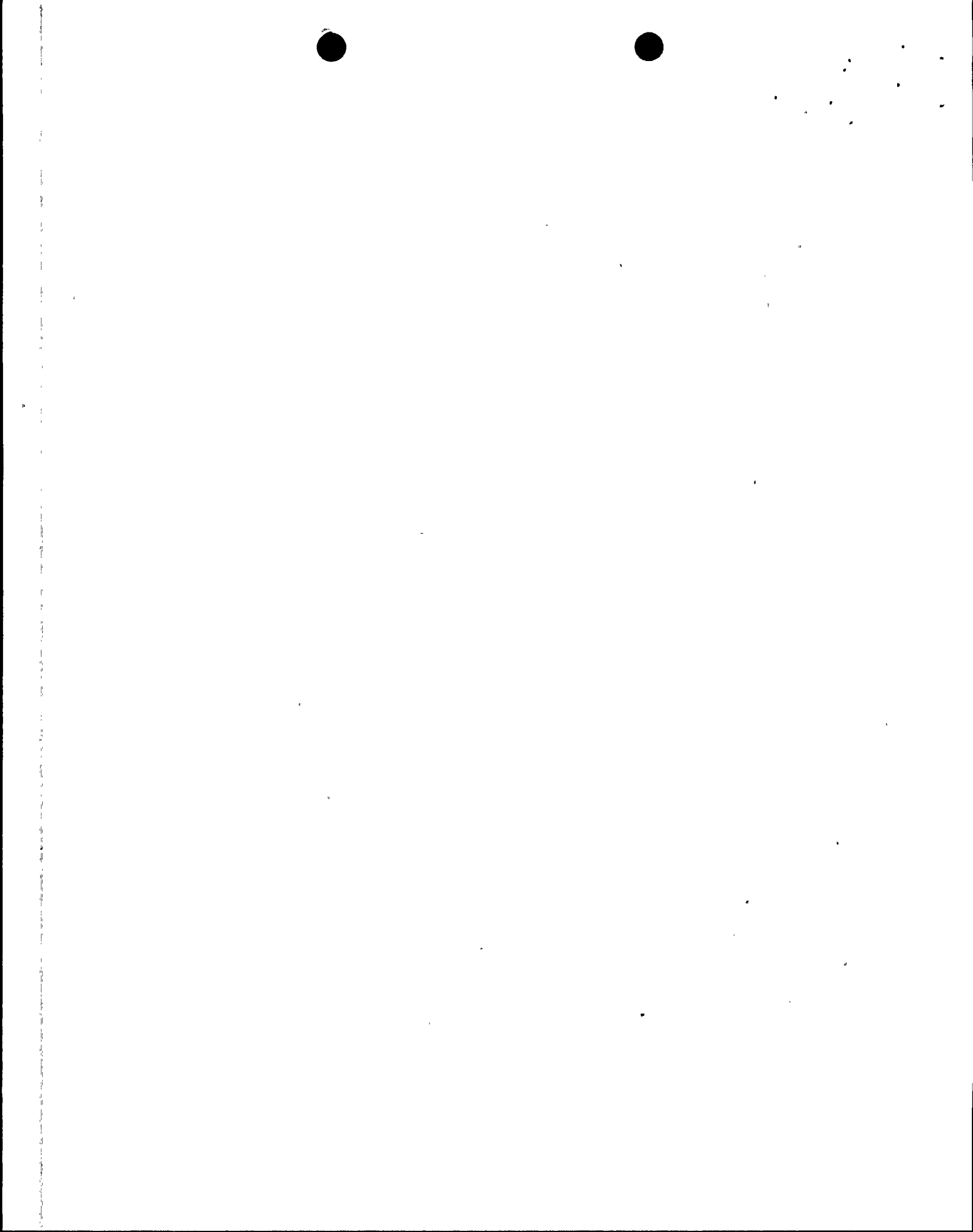


Darl Hood, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-410

Enclosures: 1. Figure 3
2. Table 1
3. Instructions

cc w/encls: See next page



B. Ralph Sylvia
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station
Unit 2

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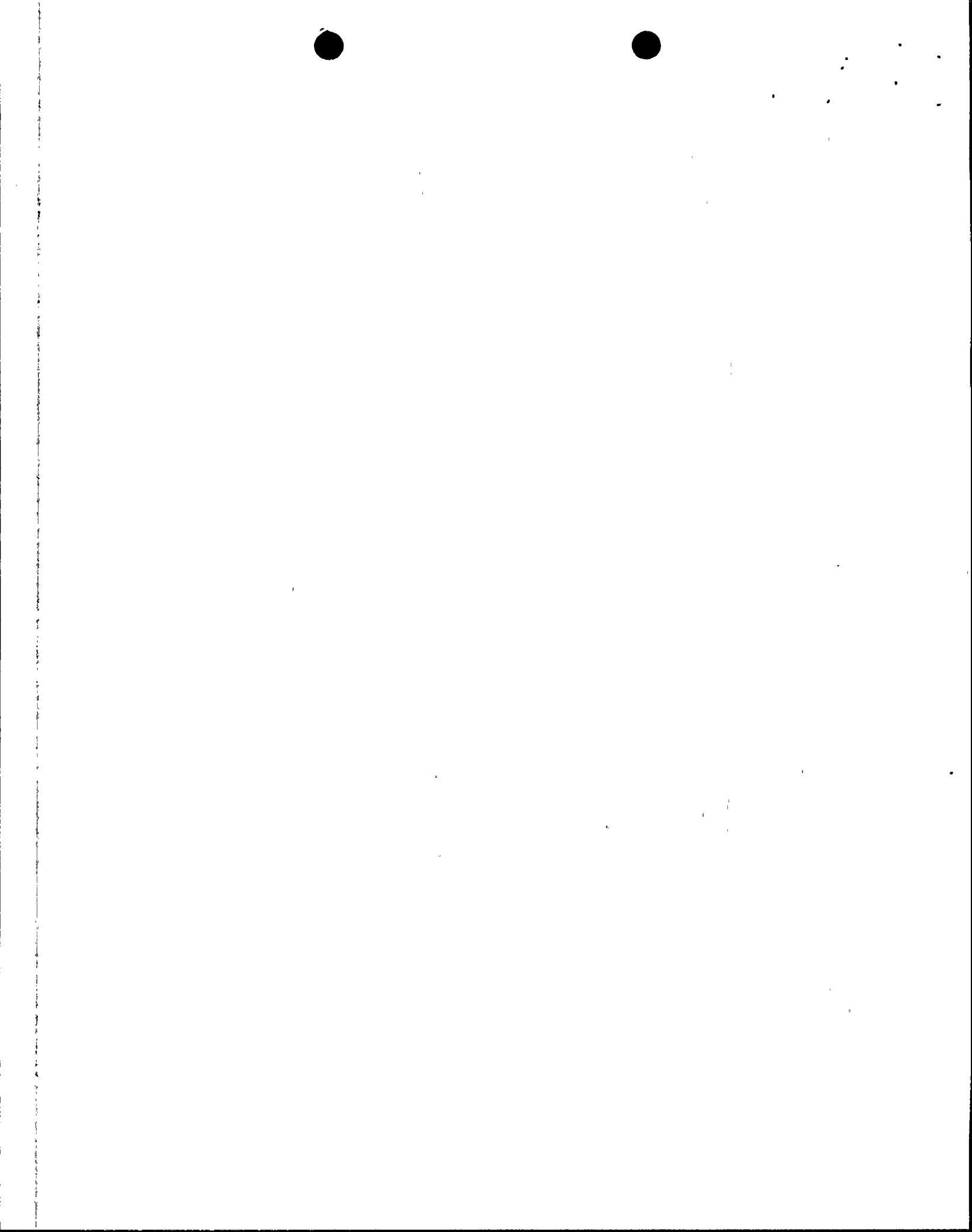
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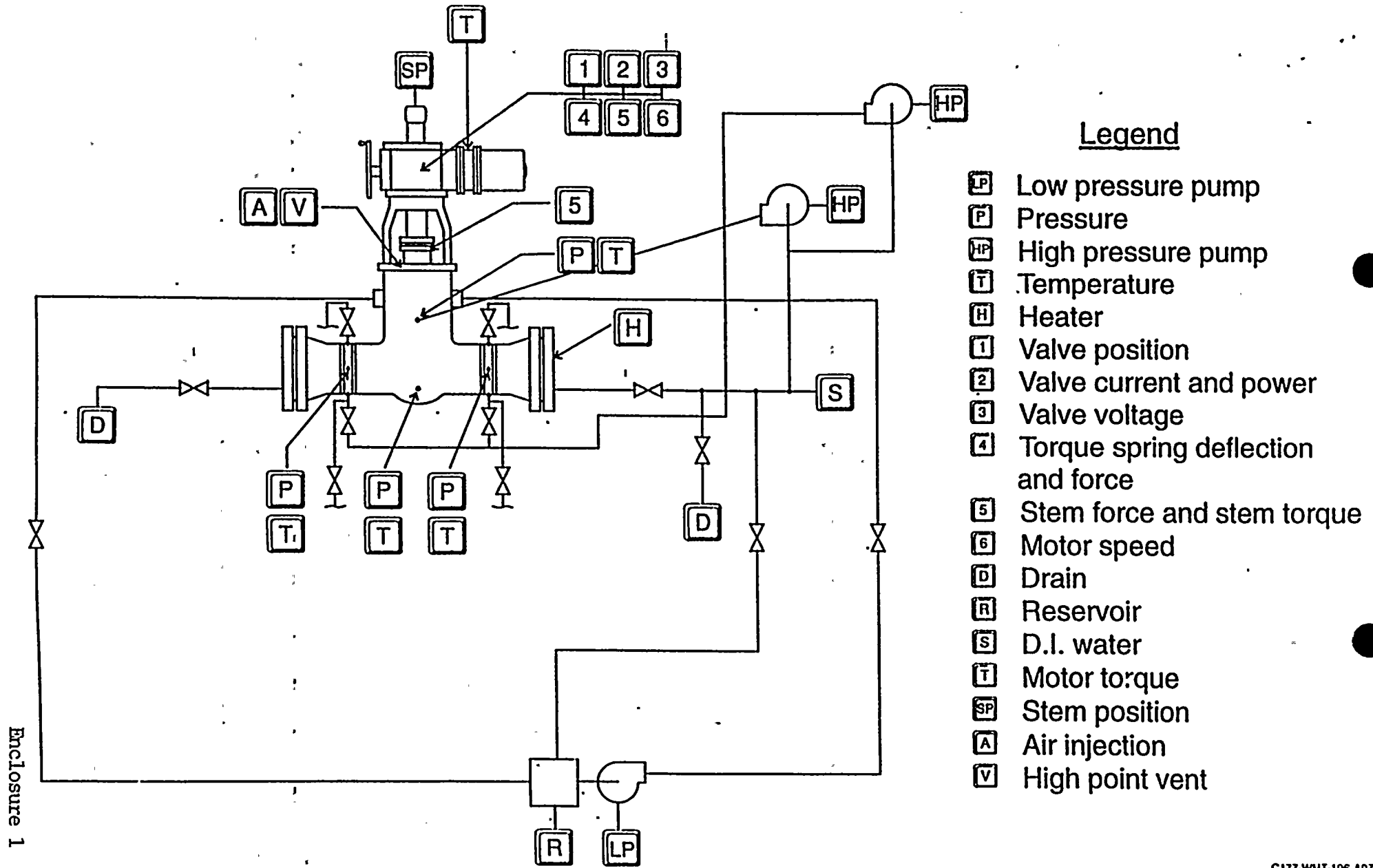
Nine Mile Point Nuclear Station
Unit 2

cc:

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Corporation
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Kalsi Engineering, Inc.
745 Park Two Drive
Sugar Land, Texas 77478





Legend

- LP Low pressure pump
- P Pressure
- HP High pressure pump
- T Temperature
- H Heater
- 1 Valve position
- 2 Valve current and power
- 3 Valve voltage
- 4 Torque spring deflection and force
- 5 Stem force and stem torque
- 6 Motor speed
- D Drain
- R Reservoir
- S D.I. water
- T Motor torque
- SP Stem position
- A Air injection
- V High point vent

Enclosure 1

Figure 3. Test setup and instrumentation for the pressure locking tests.



Table 1. Test instrumentation.

TCS channel	Description	Calibration
Channel 01	Bonnet fluid temperature	Yes
Channel 02	Upstream fluid temperature	Yes
Channel 03	Downstream fluid temperature	Yes
Channel 16	Motor current, I1, RMS	Yes
Channel 19	Motor voltage, V1-2, RMS	Yes
Channel 21	Motor rotor temperature	Not required
Channel 32	Stem force (load cell)	Yes
Channel 33	Torque spring force	Yes
Channel 34	Bonnet pressure	Yes
Channel 35	Upstream pressure	Yes
Channel 36	Downstream pressure	Yes
Channel 40	Motor torque	Yes
Channel 50	Stem force (Smart Stem)	Yes
Channel 51	Stem torque (Smart Stem)	Yes
Channel 66	Torque switch	Not required
Channel 67	Motor power	Yes
Channel 68	Motor power factor	Yes
Channel 69	Torque spring position	Yes
Channel 72	Motor speed	Yes
Channel 74	Transformer voltage	Not required
Channel 75	Stem position	Not required
Channel 77	Motor current, I1, Peak	Yes
Channel 78	Motor current, I2, Peak	Yes
Channel 79	Motor current, I3, Peak	Yes



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PROCESS FOR LOADING DATA FILES

The data files contained on disks 1 and 2 are in DADiSP Labbook format. They have also been compressed using the PKZIP software.

To load the data files into DADiSP, first run DADiSP and create new Labbooks having the same name as each data file. Note that the "D" at the end of the file name indicates DADiSP format and is not part of the Labbook name.

Example: For file name V3002D.ZIP, create Labbook V3002

Next, exit DADiSP and enter the DOS subdirectory matching the newly created Labbook.

Example: CD C:\DSP\V3002

Finally, "unzip" the data file that matches the Labbook name. PKZIP will question if you want to overwrite the INDEX.PI file - you must answer YES.

Example: PKUNZIP A:\V3002D.ZIP

The data should now be loaded into the DADiSP Labbook and available for analysis.

