

P21 93159

VELAN VIA FAX

- Head Office (514) 748-8635
- Quotations (514) 748-7592
- NUCLEAR DIV. (514)-342-2311
- Plant 1 (514) 748-8635
- Plant 2 (514) 341-3032
- Plant 3 (802) 862-4014
- Plant 4 (514) 378-6865

Message No.: ND 2662 No. of pages: 2

FAX Number: 301-504-2260

Date: APRIL 8, 1993

From: BERT NILSSON

To: U.S. N.R.C.

Attention: LARRY L. CAMPBELL

Copies to: _____

Subject: VELAN SERVICE BULLETIN #SB-106

ATTACHED PLEASE FIND A COPY OF OUR SERVICE BULLETIN #SB-106 COVERING THE FAILED STEM ANTIROTATION KEY. WE WILL START SENDING THIS BULLETIN TO ALL THE U.S. NUCLEAR UTILITIES NEXT WEEK.

TRUST THIS MEETS WITH YOUR ACCEPTANCE.

B. NILSSON
/srb

904



- SERVICE BULLETIN -

#SB-106

SUBJECT: GLOBE VALVE STEM ANTIROTATION KEY

This is to advise you that an "L" shaped, globe valve stem anti-rotation key failed at Kewaunee Nuclear Plant. The valve in question is a 2" Motor operated globe valve originally supplied to drawing 137.116/1.

The valves affected are those Motor Operated Globe valves requiring a key installed in mounting flange which prevents the stem from rotating. Globe valves which have been supplied with torque arms are not affected by this failure.

Based on the incident at Kewaunee Nuclear Plant we recommend that keys be inspected for possible wear which could result in failure. Consideration should also be given to replacing keys at your earliest possible convenience with new keys. These new keys are supplied in material meeting AISI 4140. This material replaces the 440C grade which several project drawings call up.

Replacement keys which have been supplied by us during the last 2 1/2 years have been from this new material. If these have been installed, only regular periodic verification will be required. If no inspection and or replacements has been made, we recommend that keys be replaced.

For additional information or replacement keys, please contact:

Velan Valve Corp.
550 McArthur
Montreal, Quebec
H4T 1X8

Attn : Nuclear Division

Phone: 514-748-7743
Fax : 514-342-2311

E.I. Francois
Vice-President, Quality Assurance

B. Nilsson
Manager, Nuclear Division

Date: April 5, 1993	By: E.I. Francois	Rev: 0	Page: 1 of 1
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/erb

9104

	
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 E.I. Francois
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POWER REACTOR

EVENT NUMBER: 25323

FACILITY: KEWAUNEE
UNIT: [1] [] []
RX TYPE: [1] W-2-LP

REGION: 3
STATE: WI

NOTIFICATION DATE: 03/28/93
NOTIFICATION TIME: 14:46 [ET]
EVENT DATE: 03/28/93
EVENT TIME: 12:00 [CST]
LAST UPDATE DATE: 04/09/93

NRC NOTIFIED BY: TOM WEBB
HQ OPS OFFICER: RUDY KARSCH

NOTIFICATIONS

EMERGENCY CLASS: NOT APPLICABLE
10 CFR SECTION:
ADAS 50.72(b)(2)(i) UNANALYZED COND S/D
CCCC 21.21 UNSPECIFIED PARAGRAPH

MICHAEL J. JORDAN RDO

UNIT	SCRAM CODE	RX CRIT	INIT PWR	INIT RX MODE	CURR PWR	CURR RX MODE
1	N	N	0	REFUELING	0	REFUELING

EVENT TEXT

DEFECTIVE ANTI-ROTATION KEY FOUND ON NINE MOTOR OPERATED VALVES.

DURING MOTOR OPERATED VALVE DYNAMIC TESTING ON 3/27/93 ONE OF THE TWO REDUNDANT SAFETY INJECTION (SI) RECIRCULATION VALVES (SI-208) TO THE RWST FAILED TO CLOSE. THE OTHER VALVE PASSED. INVESTIGATION REVEALED THAT THE ANTI-ROTATION DEVICE (A KEY BETWEEN THE VALVE STEM AND THE YOKE BUSHING) HAD BROKEN. THE ACTUATOR MOUNTS ON THE YOKE. THE SHORTER PART OF THE BROKEN KEY HAD APPARENTLY JAMMED THE VALVE STEM, PREVENTING CLOSING. THIS ANTI-ROTATION DESIGN IS COMMON TO VELAN BRAND GLOBE VALVES. AT 1200 CST TODAY THE LICENSEE COMPLETED A SCOPING ASSESSMENT OF THE FAILURE. THIS ASSESSMENT IDENTIFIED NINE SIMILAR VALVE/ACTUATORS IN USE. SIX OF THE NINE VALVES HAD BROKEN KEYS. THESE VALVES ARE INSTALLED IN THE FOLLOWING SYSTEMS: ONE IN THE LETDOWN PIPING; ONE IN THE CHEMICAL VOLUME CONTROL SYSTEM IN THE EMERGENCY BORATION PIPING; THE TWO DISCUSSED ABOVE; TWO SI INJECTION VALVES TO THE VESSEL HEAD; TWO SI COLD LEG INJECTION VALVES, WHICH ARE LOCKED OPEN AT POWER; AND ONE EMERGENCY SERVICE WATER VALVE FOR MAKE UP TO THE COMPONENT COOLING WATER SURGE TANK. THE CAUSE OF THE FAILURE HAS NOT YET BEEN DETERMINED. THE LICENSEE IS STILL INVESTIGATING. THE LICENSEE INFORMED THE NRC RESIDENT INSPECTOR.

* * * UPDATE 1245EDT 4/9/93 FROM TOM WEBB BY S.SANDIN * * *
"AT APPROXIMATELY 1600 HOURS ON APRIL 08, 1993 IT WAS DETERMINED THAT THE FAILURES DESCRIBED IN THE ATTACHED EVALUATION MET THE CRITERIA OF 10CFR21. THIS EVENT WAS ORIGINALLY REPORTED ON 3/28/93 AT 1346 HOURS IN ACCORDANCE WITH 10CFR50.72(b)(2)(i) IS A CONDITION FOUND WHILE SHUTDOWN. THE SYSTEMS WILL BE RETURNED TO SERVICE PRIOR TO ENTERING THE MODE THEY ARE REQUIRED IN." FAX OF PART21 NOTIFICATION SUBMITTED BY LICENSEE. THE LICENSEE INFORMED THE NRC RESIDENT INSPECTOR. NOTIFIED R3DO(WRIGHT).