

SEP 28 1981



Illinois Department of Nuclear Safety  
ATTN: Mr. Gary N. Wright, Manager  
Nuclear Facility Safety  
1035 Outer Park Driv , 5th Floor  
Springfield, IL 62704

Gentlemen:

The enclosed IE Information Notice No. 81-30 titled "Velan Swing Check Valves" was sent to the licensees listed below on September 28, 1981:

American Electric Power Service Corporation  
Indiana and Michigan Power Company  
D. C. Cook 1, 2 (50-315, 50-316)

Cincinnati Gas & Electric Company  
Zimmer (50-358)

Cleveland Electric Illuminating Company  
Perry 1, 2 (50-440, 50-441)

Commonwealth Edison Company  
Braidwood 1, 2 (50-456, 50-457)  
Byron 1, 2 (50-454, 50-455)  
Dresden 1, 2, 3 (50-10, 50-237, 50-249)  
LaSalle 1, 2 (50-373, 50-374)  
Quad-Cities 1, 2 (50-254, 50-265)  
Zion 1, 2 (50-295, 50-304)

Consumers Power Company  
Big Rock Point (50-155)  
Midland 1, 2 (50-329, 50-330)  
Palisades (50-255)

Dairyland Power Cooperative  
LACBWR (50-409)

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Detroit Edison Company  
Fermi 2 (50-341)

Illinois Power Company  
Clinton 1, 2 (50-461, 50-462)

Iowa Electric Light and Power Company  
Duane Arno<sup>1</sup>a (50-331)

Northern Indiana Public Service Company  
Bailly (50-367)

Northern States Power Company  
Monticello (50-263)  
Prairie Island 1, 2 (50-282, 50-306)

Public Service of Indiana  
Marble Hill 1, 2 (50-546, 50-547)


Toledo Edison Company  
Davis-Besse 1 (50-346)

Union Electric Company  
Callaway 1, 2 (50-483, 50-486)

Wisconsin Electric Power Company  
Point Beach 1, 2 (50-266, 50-301)


Wisconsin Public Service Corporation  
Kewaunee (50-305)

Sincerely,

  
Dorothy E. Carroll, Chief  
Word Processing and Document  
Control Section

Enclosure: IE Information  
Notice No. 81-30

cc w/encl:  
Mr. D. W. Kane, Sargent & Lundy  
Resident Inspectors, RIII  
J. G. Keppler, RIII  
Division Directors, RIII  
P. R. Wohld, RIII  
RIII

  
Carroll/so  
9/28/81

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
WASHINGTON, D.C. 20555

September 28, 1981

IE INFORMATION NOTICE NO. 81-30: VELAN SWING CHECK VALVES

Description of Circumstances:

Recent occurrences with Velan swing check valves are described below.

1. On June 30, 1981, Public Service Electric & Gas Company reported (LER 81-035/01T) that on June 6, 1981, while a leak in the bonnet of a swing check valve in the steam supply to the turbine driven auxiliary feedwater pump at Salem Generating Station, Unit 2, was being repaired, the valve was found to be internally damaged. The valve is a Velan 6-in. swing check valve (Type B14-2114 B-2TS).

The valve disk stud had broken and the valve disk was in the bottom of the valve body. The valve also had cracks in the disk, cracked bushings, a warped hinge pin, and all hinge pin holes were elongated.

The licensee inspected the corresponding swing check valve in the other steam supply line and discovered similar damage. An inspection of the corresponding swing check valves on Unit 1 also revealed similar damage (LER 81-059/01T).

The licensee plans to radiologically examine the valves monthly until a reason for the damage can be determined.

2. On July 31, 1981, Wisconsin Electric Power Company reported (LER 81-010/01T-0) that on July 14, 1981, while a check valve leakage test at the Point Beach Nuclear Plant, Unit 1, was being performed, the check valves closest to the reactor coolant system in the low head safety injection lines were found to be leaking more than allowed by the leakage acceptance criteria. The valves are Velan 6-in. 1500 psig ASA swing check valves (Velan Drawing No. 78704).

The valves were disassembled and the disks were found to be stuck in the full-open position due to interference between the disk nut lockwire (disk wire) and the valve body. The disk nut and its shaft can rotate freely, and, in certain random rotational positions, this interference is likely to occur.

The licensee has replaced the disk wire with a cotter pin that will not cause interference with the valve body for any rotational position. Subsequent inspection of the other check valves in the low head safety injection lines

was performed. These valves were found to be closed. The lock wires were nevertheless replaced with cotter pins.

The drawing for the same valve used at the Prairie Island plant was also checked. The drawing (Velan Drawing No. 78704) is annotated to require that the lock wire be tack welded down (so it cannot interfere with the valve body). Because this detail is not uniform on the subject drawing and can vary from plant to plant, a verification and/or changeout on this locking device may be necessary.

Additional occurrences with Velan swing check valves are described in IE Bulletin 79-04, "Incorrect Weights for Swing Check Valves Manufactured by Velan Engineering Corporation," and in IE Information Notice 80-41, "Failure of Swing Check Valve in the Decay Heat Removal System at Davis-Besse Unit No. 1."

This information is provided as notification of a potentially significant matter. It is expected that recipients will review the information for possible applicability to their facilities. No specific action or response is requested at this time. If you have questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

Attachment:  
Recently issued IE Information Notices

RECENTLY ISSUED  
IE INFORMATION NOTICES

Information Notice No.	Subject	Date of Issue	Issued to
81-29	Equipment Qualification Testing Experience	9/23/81	All power reactor facilities with an OL or CP
81-28	Failure of Rockwell-Edward Main Steam Isolation Valves	9/3/81	All power reactor facilities with an OL or CP
81-27	Flammable Gas Mixtures in the Waste Gas Decay Tanks in PWR Plants	9/3/81	All power reactor facilities with an OL or CP
81-26	Compilation of Health Physics Related Information Items	9/3/81	All power reactor facilities with an OL or CP
81-25	Open Equalizing Valve of Differential Pressure Transmitter Causes Reactor Scram and Loss of Redundant Safety Signals	8/21/81	All power reactor facilities with an OL or CP
81-24	Auxiliary Feed Pump Turbine Bearing Failures	8/5/81	All power reactor facilities with an OL or CP
81-23	Fuel Assembly Damaged due to Improper Positioning of Handling Equipment	8/4/81	All power reactor facilities with an OL or CP
81-22	Section 235 and 236 Amendments to the Atomic Energy Act of 1954	7/31/81	All power research reactor, fuel fabrication and reprocessing, and spent fuel storage licensees and applicants
81-21	Potential Loss of Direct Access to Ultimate Heat Sink	7/21/81	All power reactor facilities with an OL or CP

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OL = Operating License  
CP = Construction Permit