



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

March 31, 1982

Gentlemen:

The enclosed IE Information Notice provides notification of events that may have safety significance. It is expected that recipients will review the information notice for possible applicability to their facilities.

If you have any questions regarding this matter, please contact this office.

Sincerely,

John T. Collins
Regional Administrator

Enclosures:

1. IE Information Notice No. 82-10
2. List of Recently Issued
IE Information Notices

IE INFORMATION NOTICE 82-10: FOLLOWING UP SYMPTOMATIC REPAIRS TO ASSURE
RESOLUTION OF THE PROBLEM

Licensee

Facility/Docket Number

Arkansas Power and Light Company
Little Rock, Arkansas

Arkansas Nuclear One, Unit 1 & 2
50-313; 50-368

Nebraska Public Power District
Columbus, Nebraska

Cooper Nuclear Station
50-298

Omaha Public Power District
Omaha, Nebraska

Fort Calhoun Station
50-285

Public Service Company of Colorado
Denver, Colorado

Fort St. Vrain Generating Station
50-267

Gulf States Utilities
Beaumont, Texas

River Bend
50-458; 50-459

Houston Lighting & Power Company
Houston, Texas

South Texas Project
50-498; 50-499

Kansas Gas & Electric Company
Wichita, Kansas

Wolf Creek
STN 50-482

Louisiana Power & Light Company
New Orleans, Louisiana

Waterford-3
50-382

Texas Utilities Generating Company
Dallas, Texas

Comanche Peak Steam Electric Station
50-445; 50-446

To: IE Hdqtrs

4/8/82

From: Region IV

Subj: Addressee

List for IN-82-10



1831
3
11

SSINS: 6835
Accession No.:
8202040126
IN 82-10

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

March 31, 1982

IE INFORMATION NOTICE NO. 82-10: FOLLOWING UP SYMPTOMATIC REPAIRS TO ASSURE
RESOLUTION OF THE PROBLEM

Discussion:

There have been a number of instances in which licensees have attempted to correct valve problems by treating the symptoms rather than the underlying cause. This failure to distinguish between the problem and its symptoms has resulted in recurrence of the problem and further damage to or destruction of the valve or operator. Symptomatic repairs provide for a return to operability without addressing the underlying problem, earning the label "quick and dirty fixes." The industry jargon recognizes not only that the immediate needs are met, but also that the underlying problem remains to be corrected. It is this second point which is emphasized: the underlying problem remains to be corrected.

Specifically, valves that leak beyond Technical Specification limits have been restored to operability by allowing additional stem travel. The direct result of this symptomatic solution has been damage to or destruction of the valve or operator.

One licensee has routinely backseated valves with Limitorque operators using the full motor torque in order to stop stem packing leakage, resulting in damage to the valve backseat. Bypassing the open limit switch allowed over-travel in the open direction resulting in binding of the stem in the stem nut. Because the unthreaded portion of the stem galled in the threads of the stem nut, the threads deformed and the nut cracked. The valves involved were 600 psi class, Anchor Darling Valve Company 10-inch integral backseat gate valves with pressure seal bonnets. Stem and body were type 316 stainless steel.

On a larger scale, in a survey of Licensee Event Reports (LER) for 1978 through 1980, 444 valve operator events were identified for 66 plants. Of these, 193 were identified as motor operator events. Corrective actions which involved torque switches comprised the largest single corrective action group. The principal means of corrective action identified was the adjustment of torque switch setting. This solution was applied to valves in similar service and,

repetitively, to the same valve at several plants. This indicates that the problem was not being corrected.

The second major corrective action group was limit switch adjustments. This was a common solution to problems involving valve operation within a time limit. The cause for the problem is repeatedly given as instrument drift which is undoubtedly true as far as it goes; however, repetition of the events points to the need for a wider ranging solution which will prevent recurrences and improve system reliability.

During the survey period, there were 16 reported instances of motors replaced in motor operators in the high-pressure coolant injection (HPCI), reactor core isolation cooling and residual heat removal systems of boiling water reactors. This was the third largest corrective action group. The damage that required replacement of some of the 16 motors resulted from thermal overload protection being bypassed and may be another indication that the underlying valve problem was not corrected.

The common thread in the events as reported by LERs surveyed is the repetition of the problem or the solution, either of which can indicate that a symptomatic repair has been made. Symptomatic repairs become of concern to the NRC where they impact upon the reliability of the system and where they may adversely affect the health and safety of the public.

When considering the solution to a valve problem, it must be recognized that a symptomatic repair may cause damage to the valve or operator which could impair the safety function of the system to which it is applied. Consideration should be given to the kind of damage that can occur as a result of the repair and the consequences should a valve fail in a nonconservative direction. A mechanism should exist to identify and resolve the underlying problem when symptomatic repairs are applied.

When the possibility exists for degradation of a safety system as a result of a temporary symptomatic repair to restore operability, prudence dictates a closer surveillance of the system so affected.

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

Enclosure
IE Information Notice: 82-10
March 31, 1982

LISTING OF RECENTLY ISSUED
IE INFORMATION NOTICES

<u>Information Notice No.</u>	<u>Subject</u>	<u>Date Issued</u>	<u>Issued To</u>
80-32 Rev. 1	Clarification of Certain Requirements for Exclusive- Use Shipments of Radioactive Materials	2/12/82	All fuel facility, materials, and Part 50 licensees
82-01 Rev. 1	Auxiliary Feedwater Pump Lockout Resulting from Westinghouse W-2 Switch Circuit Modification	2/26/82	All power reactor facilities holding an OL or CP
82-03	Environmental Tests of Electrical Terminal Blocks	3/04/82	All power reactor facilities holding an OL or CP
82-04	Potential Deficiency of Certain AGASTAT E-7000	3/10/82	All power reactor facilities holding an OL or CP
82-05	Increasing Frequency of Drug-Related Incidents	3/10/82	All power reactor facilities holding an OL or CP
82-06	Failure of Steam Generator Primary Side Manway Closure Studs	3/12/82	All power reactor facilities holding an OL or CP
82-07	Inadequate Security Screening Programs	3/16/82	All power reactor facilities holding an OL or CP
82-08	Check Valve Failures on Diesel Generator Engine Cooling System	3/26/82	All power reactor facilities holding an OL or CP
82-09	Cracking in Piping of Makeup Coolant Lines at B&W Plants	3/31/82	All power reactor facilities holding an OL or CP

OL = Operating License
CP = Construction Permit