

REPORT DATE: July 3, 1979  
OCCURRENCE DATE: April 12, 1979

REPORTABLE OCCURRENCE 79-13  
ISSUE 0  
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FORT ST. VRAIN NUCLEAR GENERATING STATION  
PUBLIC SERVICE COMPANY OF COLORADO  
P. O. BOX 361  
PLATTEVILLE, COLORADO 80651

REPORT NO. 50-267/79-13/03-L-0

Final

IDENTIFICATION OF  
OCCURRENCE:

During performance of the hydraulic snubber functional test required by the Fort St. Vrain Technical Specifications, snubbers were found to be inoperable. It must be assumed that these snubbers were inoperable when the plant was at power. This is contrary to LCO 4.3.10, constitutes operation in a degraded mode, and is reportable per Section AC 7.5.2(b)2 of the Fort St. Vrain Technical Specifications.

EVENT  
DESCRIPTION:

Specification SR 5.3.8(d) of the Fort St. Vrain Technical Specifications requires that a representative sample of ten hydraulic snubbers be tested once each refueling cycle starting with the first refueling. The specification requires a functional test for operability including verification of proper piston movement, lockup, and bleed. The specification states that for each unit and subsequent unit found inoperable, an additional ten snubbers shall be tested until no more failures are found or all units have been tested.

The Fort St. Vrain Nuclear Generating Station began its first refueling shutdown February 1, 1979, and performance of the required testing was begun on April 12, 1979. During performance of the functional test, snubbers were found that did not meet the acceptance criteria.

The failure of the tested snubbers to meet the acceptance criteria was both unacceptable lockup characteristics and unacceptable bleed characteristics. The table below shows the results of 413 snubbers tested.

Total Snubbers Tested	413
Total Found Operable	48
Total Found Inoperable	365
Failed Piston Movement Test	0
Failed Lockup Test Only	16
Failed Bleed Test Only	173
Failed Lockup and Bleed Test	176

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EVENT

DESCRIPTION (continued):

In addition to those snubbers found to be inoperable when tested, three other items of reportability were identified during performance of the surveillance test. First, three Class 1 snubbers were found that had been installed by an approved field change in 1976 but had not been added to the list in the Technical Specifications and were not added to the periodic surveillance inspection program. Second, sixteen snubbers installed on another approved field change were found not to have bleed capability. Third, approximately half of the snubbers tested were found to have seal material other than ethylene propylene. Technical Specification SR 5.3.8(b) requires all hydraulic snubbers whose seal materials are other than ethylene propylene or other material that has been demonstrated to be compatible with the operating environment be visually inspected for operability every 31 days. Contrary to this requirement the snubbers with non-ethylene propylene seals were not identified and were not inspected every 31 days.

Permission was requested and received from the Nuclear Regulatory Commission to delay submittal of this report until completion of the testing and repair program.

CAUSE

DESCRIPTION:

The snubbers at the Fort St. Vrain plant have been installed and in operation for several years and this is the first functional test to be performed. The exact causes of failures were found to be setpoint drift, dirty oil, and clogged valves.

The cause of the failure to incorporate the three snubbers added in 1976 to the Technical Specification list and surveillance program was the misclassification of the change by the originating organization as a change not requiring a Technical Specification change.

The cause of the installation of sixteen snubbers without bleed capability was the omission of a bleed rate from the design specification and the resultant purchase of snubbers without bleed capability.

The cause of the failure to perform the inspection of snubbers with non-ethylene propylene seals as required by SR 5.3.8(b) was misinformation, as to the seal material, which led the organization responsible for surveillance test preparation to believe that all snubbers had ethylene propylene seals.

CORRECTIVE

ACTION:

The corrective action for snubbers that failed the functional test was to repair or readjust each snubber to meet acceptance criteria. All tested snubbers were reinstalled in operable condition.

CORRECTIVE  
ACTION (continued):

The failure to properly identify the three Class 1 snubbers involved in a field change was the second occurrence of this type and actually occurred prior to the first identified occurrence (Reportable Occurrence Report No. 50-267/77-41). At the time of the first occurrence a letter was sent to the prime contractor admonishing them for failure to properly review and describe a Class 1 modification. Since the error described in this report occurred prior to the issuance of the letter no additional action will be taken. The three snubbers will be temporarily added to Technical Specification Table 4.3.10-1 until a permanent revision to Table 4.3.10-1 is issued in a subsequent amendment. The surveillance procedure has been revised to include the three snubbers.

Those snubbers which were found to not have bleed capability were modified by installation of a valve assembly providing both lockup and bleed capability.

During the functional test those snubbers that had non-ethylene propylene seals were found to have their seals in good condition. Because there was no evidence of degradation specific to non-ethylene propylene seals, the seals in use have been demonstrated to be compatible with the operating environment. Therefore, there are no snubbers at Fort St. Vrain subject to the inspection requirements of SR 5.3.8(b) and no corrective action is required.

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