Nebraska Public Power District

COOPER NUCLEAR STATION
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CNSS820723

December 23, 1982

Mr. John T. Collins, Regional Administrator
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region IV
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

Dear Sir:

This report is submitted in accordance with Section 6.7.2.B.2 of the Technical Specifications for Cooper Nuclear Station and discusses a reportable occurrence that was discovered on November 28, 1982. A licensee event report form is also enclosed.

Report No.:	50-298-82-23
Report Date:	December 23, 1982
Occurrence Date:	November 28, 1982
Facility:	Cooper Nuclear Station

IE-22

Identification of Occurrence:
A condition which led to violation of a limiting condition for operation established in Section 3.6.H.3 of the Technical Specifications.

Conditions Prior to Occurrence:
The reactor was operating at approximately 100% power at steady state conditions.

Description of Occurrence:
Core Spray snubber (CS-7) was found leaking during a station operator tour. Administrative action was immediately started in order to document and ultimately to repair the leaking snubber. During the course of the repair, 90 hours later it was first realized the snubber may have been inoperable about the time the leak was discovered. The Core Spray subsystem (Loop B) had not been declared inoperable during the period (after 72 hours as required by Technical Specifications).

Designation of Apparent Cause of Occurrence:
A locknut on the rear extension assembly of the hydraulic snubber was apparently not properly tightened after a modification was made to one end bracket of the snubber in conjunction with the torus attached piping modification. When a station operator reported a leaking snubber, the report was interpreted as a minor oil drip not uncommon to hydraulic snubbers of this type. Administrative action was thus initiated on a

routine basis to document and to repair the leak. After an intervening holiday period when repairs were commenced, it was first realized that the snubber could have been inoperable at the time the leak was first noted some 90 hours previously.

Analysis of Occurrence:

Core Spray snubber CS-S7 is a Grinnell Figure 200 hydraulic shock suppressor, SN 7568, that was rebuilt and installed in CS-S7 in 1980.

During a station operator tour on 11-25-82, CS-S7 snubber was found leaking hydraulic fluid. A work item was initiated by the operator to repair this snubber. This work item was not acted upon until 11-29-82 approximately 90 hours after discovery of the inoperable snubber. In the course of investigating the extent of repairs needed, it was discovered that in addition to leaking, the snubber was in the inverted position. Although the station operator did not realize the significance of the snubber position nor report it as such, apparently the snubber may have been in the inverted position when the oil was first noted to be leaking. Technical Specifications require an inoperable snubber must be repaired or replaced within 72 hours or the associated safety system shall be declared inoperable. The Core Spray subsystem was not declared inoperable nor was the snubber repaired within 72 hours. The operations personnel failed to check this Technical Specification requirement for inoperable snubbers since the snubber was thought to have only a minor leak.

The failure of CS-S7 snubber is attributed to work performed as part of the Torus Attached Piping Modifications. As a part of these modifications, the end plate and the rear bracket of snubber CS-S7 were modified. During this work a locknut on the rear extension tube of the snubber may have been loosened. With this locknut loose, the snubber is free to rotate. Vibrations from the Core Spray System operation during monthly surveillance testing and from the weight of the reservoir assembly could cause the snubber to rotate. The open vent plug in the reservoir which is part of the snubber design would allow the fluid to leak out of the inverted reservoir.

Recognizing the extremely low probability of a seismic event, the Technical Specifications allow a 72 hour repair time for snubbers. During this event, this repair time was exceeded by approximately 18 hours. The redundant Core Spray subsystem (Loop A) and all other snubbers in Loop B were operable during this event. The event presented no adverse consequences from the standpoint of public health and safety.

Corrective Action:

When the significance of the inverted snubber position was made known to management, corrective action was completed within eight hours. The snubber was replaced with a rebuilt unit. This event will be reviewed with personnel performing modification on safety related snubbers to ensure that snubbers are properly reassembled and locknuts are tight.

Several snubbers were spot checked for loose locknuts and were found satisfactory. This event description will be routed to all operations personnel to ensure that they are aware of the Technical Specification requirements for inoperable snubbers and the action necessary to prevent recurrence of this event.

Sincerely,

L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.