TABLE 2-6(a)

ACCESSIBILITY OF SAFETY-RELATED SYSTEM HYDRAULIC SNUBBERS

| *Snubber No. | Elevation | Accessible During Normal Operation | Inaccessible During Normal Operation | Located In High Radiation Areas During Shutdown | Difficult to Remove for Functional Testing |
|---|---|---|---|---|---|
| ACS-18 | 996' 8" | X | | | |
| ACS-112 | 1040' 0" | | X | | X |
| ACS-113 | 1040' 0" | | X | | X |
| ACS-113A | 1040' 0" | | X | | X |
| ACS-116 | 1031' 4" | | X | | |
| ACS-117 | 1031' 4" | | X | | |
| ACS-118 | 1031' 4" | | X | | |
| ACS-121 | 1031' 4" | | X | | |
| ACS-123 | 1031' 4" | | X | | |
| ACS-127A | 1040' 0" | | X | | X |
| ACS-128 | 1040' 0" | | X | | X |
| ACS-299 | 1056' 4-11/16" | | X | | |
| ACS-299A | 1056' 6" | | X | | |
| ACS-302 | 1056' 4-11/16" | | X | | |
| ACS-304 | 1056' 4-11/16" | | X | | |
| ACS-305 | 1056' 4-11/16" | | X | | |
| ACS-306 | 1056' 4-11/16" | | X | | |
| ACS-307 | 1056' 4-11/16" | | X | | |
| ACS-313 | 1054' 11" | | X | | |
| ACS-384 | 1000' 6" | X | | | |
| ACS-385 | 987' 5-1/4" | X | | | |
| ACS-386A | 1020' 0" | X | | | |
| ACS-386B | 1020' 0" | X | | | |
| ACS-406 | 1011' 0" | | X | | |
| ACS-407 | 1011' 0" | | X | | |
| AFW-60 | 1007' 6" | X | | | |
| AFW-65 | 1002' 10" | X | | | |
| FWS-1 Top | 1038' 6" | | X | | X |
| FWS-1 Bottom | 1038' 6" | | X | | X |
| FWS-1A | 1033' 6" | | X | | X |
| FWS-1B | 1033' 5-1/2" | | X | | X |
| FWS-1C | 1033' 5-1/2" | | X | | X |
| FWS-2 Top | 1038' 6" | | X | | X |
| FWS-2 Bottom | 1038' 6" | | X | | X |



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TABLE 2-6(a)
(Continued)

| *Snubber No. | Elevatic | Accessible During Normal Operation | Inaccessible During Normal Operation | Located In High Radiation Areas During Shutdown | Difficult to Remove for Functional Testing |
|---|---|---|---|---|---|
| FWS-74 | 1053' 0" | X | | | |
| FWS-75A | 1053' 0" | X | | | |
| FWS-78 | 1038' 4" | X | | | |
| FWS-79 | 1049' 6" | X | | | |
| FWS-80 | 1049' 6" | X | | | |
| FWS-81 | 1049' 6" | X | | | |
| FWS-83 | 1033' 4" | X | | | |
| FWS-86A | 999' 0" | X | | | |
| FWS-87 | 999' 0" | X | | | |
| FWS-88 | 999' 0" | X | | | |
| FWS-88A | 999' 0" | X | | | |
| FWS-89 | 1002' 6" | X | | | |
| FWS-90 | 1001' 6" | X | | | |
| FWS-90A | 1005' 6-5/8" | X | | | |
| FWS-91 | 1019' 0" | X | | | |
| FWS-92 | 1019' 0" | X | | | |
| FWS-92A | 1026' 0" | X | | | |
| FWS-93 | 1032' 0" | X | | | |
| FWS-94 | 1032' 0" | X | | | |
| FWS-95 | 1032' 0" | X | | | |
| FWS-96 | 1032' 0" | X | | | X |
| FWS-97 | 1032' 0" | X | | | X |
| FWS-98 | 1032' 0" | X | | | X |
| FWS-100 | 1039' 0" | X | | | |
| FWS-101 | 1039' 0" | X | | | |
| HCV-327-S | 1025' 0" | | X | | |
| HCV-329-S | 1025' 0" | | X | | |
| HCV-331-S | 1025' 0" | | X | | |
| HCV-333-S | 1025' 0" | | X | | |
| MSS-1 | 1054' 7" | | X | | X |
| MSS-2 | 1054' 8-1/2" | | X | | X |
| MSS-3 | 1038' 0" | X | | | |
| MSS-4 Top | 1038' 6" | | X | | X |

TABLE 2-6(a)
(Continued)

| *Snubber No. | Elevation | Accessible During Normal Operation | Inaccessible During Normal Operation | Located In High Radiation Areas During Shutdown | Difficult to Remove for Functional Testing |
|---|---|---|---|---|---|
| MSS-4 Bottom | 1038' 6" | | X | | X |
| MSS-5 | 1054' 7" | | X | | X |
| MSS-6 | 1054' 8½" | | X | | X |
| MSS-7 | 1038' 6" | | X | | X |
| MSS-8 Top | 1038' 6" | | X | | X |
| MSS-8 Bottom | 1038' 6" | | X | | X |
| MSS-8A | 1038' 6" | | X | | X |
| MSS-8B | 1038' 6" | | X | | X |
| MSS-8C | 1038' 6" | | X | | X |
| MSS-8D | 1038' 6" | | X | | X |
| MSS-9 | 1040' 7" | X | | | |
| MSS-9A | 1040' 7" | X | | | |
| MSS-9B-North | 1033' 6" | X | | | |
| MSS-9B-South | 1033' 6" | X | | | |
| MSS-13 | 1040' 7" | X | | | |
| MSS-13A-East | 1040' 0" | X | | | |
| MSS-13A-West | 1040' 0" | X | | | |
| MSS-13B-North | 1038' 6" | X | | | |
| MSS-13B-South | 1038' 6" | X | | | |
| RCP-A1 | 1016' 0" | | X | | |
| RCP-A2 | 1016' 0" | | X | | |
| RCP-A3 | 1016' 0" | | X | | |
| RCP-A4 | 1016' 0" | | X | | |
| RCP-B1 | 1016' 0" | | X | | |
| RCP-B2 | 1016' 0" | | X | | |
| RCP-B3 | 1016' 0" | | X | | |
| RCP-B4 | 1016' 0" | | X | | |
| RCP-C1 | 1016' 0" | | X | | |

TABLE 2-6(a)
(Continued)

| *Snubber No. | Elevation | Accessible During Normal Operation | Inaccessible During Normal Operation | Located In High Radiation Areas During Shutdown | Difficult to Remove for Functional Testing |
|---|---|---|---|---|---|
| RCS-52 | 1007' 9" | | X | | |
| RWS-89 | 1046' 0" | X | | | X |
| RWS-128A | 998' 8-1/2" | X | | | |
| RWS-128B | 998' 8-1/2" | X | | | |
| RWS-130 | 998' 8-1/2" | X | | | |
| RWS-131 | 998' 8-1/2" | X | | | |
| SG-A1 | 1049' 0" | | X | | X |
| SG-A2 | 1049' 0" | | X | | X |
| SG-A3 | 1049' 0" | | X | | X |
| SG-A4 | 1049' 0" | | X | | X |
| SG-B1 | 1049' 0" | | X | | X |
| SG-B2 | 1049' 0" | | X | | X |
| SG-B3 | 1049' 0" | | X | | X |
| SG-B4 | 1049' 0" | | X | | X |
| SIS-1 | 979' 6" | X | | | |
| SIS-1A | 979' 6" | X | | | |
| SIS-3 | 979' 6" | X | | | |
| SIS-4 | 979' 6" | X | | | |
| SIS-4A | 979' 6" | X | | | |
| SIS-5 | 979' 6" | X | | | |
| SIS-5A | 979' 6" | X | | | |
| SIS-6 | 979' 6" | X | | | |
| SIS-6A | 979' 6" | X | | | |
| SIS-7 | 979' 6" | X | | | |
| SIS-8 | 979' 4" | X | | | |
| SIS-8B | 979' 6" | X | | | |
| SIS-8C | 979' 6" | X | | | |
| SIS-9 | 979' 6" | X | | | |
| SIS-9A | 979' 6" | X | | | |
| SIS-9B | 979' 6" | X | | | |
| SIS-10 | 983' 6" | X | | | |
| SIS-11 | 983' 6" | X | | | |
| SIS-16 | 981' 6" | X | | | |
| SIS-16A | 981' 6" | X | | | |
| SIS-17 | 979' 6" | X | | | |

TABLE 2-6
(Continued)

| *Snubber No. | Elevation | Accessible During Normal Operation | Inaccessible During Normal Operation | Located in High Radiation Areas During Shutdown | Difficult to Remove for Functional Testing |
|---|---|---|---|---|---|
| SIS-80 | 1001' 4" | X | | | |
| SIS-81 | 991' 6" | X | | | |
| SIS-81A | 991' 6" | X | | | |
| SIS-81B | 991' 6" | X | | | |
| SIS-82 | 991' 0" | X | | | |
| SIS-82A | 991' 0" | X | | | |
| SIS-83 | 1001' 9-3/8" | X | | | |
| SIS-84 | 1001' 9-3/8" | X | | | |
| SIS-85 | 1002' 8" | X | | | |
| SIS-85A | 1006' 8" | X | | | |
| SIS-86 | 991' 6" | X | | | |
| SIS-87 | 990' 9" | X | | | |
| SIS-88 | 989' 11" | X | | | |
| SIS-89 | 1000' 0" | X | | | |
| SIS-89A | 1000' 0" | X | | | |
| SIS-90 | 1000' 0" | X | | | |
| SIS-91 | 1002' 8" | X | | | |
| SIS-91A | 1002' 8" | X | | | |
| SIS-92 | 990' 9" | X | | | |
| SIS-93 | 990' 9" | X | | | |
| SIS-93A | 990' 9" | X | | | |
| SIS-94 | 1001' 9-3/8" | X | | | |
| SIS-95 | 1001' 9-3/8" | X | | | |
| SIS-96 | 1002' 8" | X | | | |
| SIS-96A | 1002' 8" | X | | | |
| SIS-97 | 1002' 8" | X | | | |
| SIS-98 | 1000' 0" | X | | | |
| SIS-99 | 998' 6" | X | | | |
| SIS-100 | 997' 6" | X | | | |

TABLE 2-6(a)
(Continued)

| *Snubber No. | Elevation | Accessible During Normal Operation | Inaccessible During Normal Operation | Located In High Radiation Areas During Shutdown | Difficult to Remove for Functional Testing |
|---|---|---|---|---|---|
| SIS-101 | 991' 0" | X | | | |
| SIS-101A | 991' 0" | X | | | |
| SIS-102 | 991' 0" | X | | | |
| SIS-103 | 1001' 4" | X | | | |
| SIS-104 | 1001' 4" | X | | | |
| SIS-104A | 1001' 4" | X | | | |
| SIS-104B | 1001' 4" | X | | | |
| SIS-112C | 1111' 6" | | X | | |
| SIS-112D | 1111' 6" | | X | | |
| SIS-112E | 1111' 6" | | X | | |
| SIS-112F | 1111' 6" | | X | | |
| SIS-115 | 1009' 5-3/4" | | X | | |
| SIS-116 | 1009' 5-3/4" | | X | | |
| SIS-117 | 1009' 5-3/4" | | X | | |
| SIS-117A | 1009' 5-3/4" | | X | | |
| SIS-118 | 1009' 5-3/4" | | X | | |
| SIS-118A | 1009' 5-3/4" | | X | | |
| SIS-119 Top | 1006' 4-1/2" | | X | | |
| SIS-119 Bottom | 1006' 4-1/2" | | X | | |
| SIS-120 | 1006' 4-1/2" | | X | | |
| SIS-121 | 1007' 10" | | X | | |
| SIS-122 | 1003' 0-1/8" | | X | | |
| SIS-122A | 1003' 0-1/3" | | X | | |
| SIS-123 | 1003' 0-1/3" | | X | | |
| SIS-124 | 1010' 4" | | X | | |
| SIS-127 | 1010' 4" | | X | | |
| SIS-127A | 1010' 10-1/2" | | X | | |
| SIS-129 | 1005' 5" | | X | | |
| SIS-130 | 1008' 2" | | X | | |
| SIS-132 | 1008' 2" | | X | | |
| SIS-134 | 1003' 0" | | X | | |
| SIS-135 | 1003' 0" | | X | | |
| SIS-140 | 1008' 10" | | X | | |
| SIS-150 | 1008' 10" | | X | | |
| SIS-159A | 1004' 3-1/6" | | X | | |
| SIS-161 | 1014' 0" | | X | | |

TABLE 2-6(a)
(Continued)

| *Snubber No. | Elevation | Accessible During Normal Operation | Inaccessible During Normal Operation | Located In High Radiation Areas During Shutdown | Difficult to Remove for Functional Testing |
|---|---|---|---|---|---|
| SIS-183 | 1055' 9-1/2" | X | | | |
| SIS-184 | 979' 6" | X | | | |
| SIS-185 | 979' 6" | X | | | |
| SIS-187 | 983' 6" | X | | | |
| SIS-188 | 988' 6" | X | | | |
| SIS-202 | 1009' 0" | X | | | |
| SIS-204 | 995' 0" | X | | | |
| SIS-205 | 979' 6" | X | | | |
| SIS-206 | 983' 6" | X | | | |
| SIS-208 | 1003' 1-1/8" | X | | | |
| WDS-107 | 1004' 0" | X | | | |
| WDS-122 Right | 991' 6" | X | | | |
| WDS-122 Left | 991' 6" | X | | | |

NOTE: Modifications to this table due to changes in high radiation areas should be submitted to the NRC as part of the next licensing amendment request.

*Location

ACS Auxiliary Coolant System
AFW Auxiliary Feedwater System
FWS Feedwater System
MSS Main Steam System
RCP Reactor Coolant Pump
RCS Reactor Coolant System
RWS Raw Water System
SG Steam Generator
SIS Safety Injection System
WDS Waste Disposal System

TABLE 2-6(b)

ACCESSIBILITY OF SAFETY-RELATED SYSTEM MECHANICAL SNUBBERS

| *Snubber No. | Elevation | Accessible During Normal Operation | Inaccessible During Normal Operation | Located In High Radiation Areas During Shutdown | Difficult to Remove for Functional Testing |
|---|---|---|---|---|---|
| RCS-3A | 996' | | X | | |
| RCS-16 | 1015' | | X | | |
| RCS-29 | 1047' | | X | | |
| RCS-29A | 1045' | | X | | |
| SIS-114-A | 1074' | | X | | |
| SIS-114-B | 1074' | | X | | |
| SIS-114-E | 1074' | | X | | |
| SIS-114-F | 1074' | | X | | |

b. Restore the system to operable status within 14 days or prepare and submit a report to the Nuclear Regulatory Commission, pursuant to Section 5.9.3.i of the Technical Specifications, within an additional 30 days, outlining the cause of the inoperability and the plans for restoring the system to operable status.

(6) The fire hose stations designated in Table 2-8 shall be operable. With a hose station inoperable, provide a hose of equivalent capacity which can service the unprotected areas from an operable hose station within one hour from the time that a hose station is determined to be inoperable if the inoperable fire hose station is the primary means of fire suppression; otherwise, route the additional hose within 24 hours.

(7) All penetration fire barriers protecting safety-related areas shall be functional (intact). With a penetration fire barrier non-functional, within one hour, either establish a continuous fire watch on at least one side of the affected penetration, or verify the operability of fire detectors on at least one side of the penetration and establish an hourly fire watch patrol. Restore the non-functional penetration to functional status within 7 days, or prepare and submit a report to the Nuclear Regulatory Commission, pursuant to Section 5.9.3 of the Technical Specifications, within an additional 30 days outlining the action taken, the cause, and the plans and schedule for restoring the penetration to functional status.

(8) The control room, switchgear room and cable spreading room halon systems shall be operable with the storage tanks having at least 90% of full charge pressure and 95% of full charge weight or level. With a halon system inoperable, establish a continuous fire watch with backup fire suppression equipment. Restore the system to operable status within 14 days, or prepare and submit a report to the Nuclear Regulatory Commission, pursuant to Section 5.9.3 of the Technical Specifications, within an additional 30 days, outlining the cause of the inoperability and the plans for restoring the system to operable status.

(9) During periods when the plant is in a cold or refueling shutdown condition, paragraphs (7) and (8) of this specification may be modified as follows:

The roll-up fire doors in the switchgear room may be opened and left open provided that at least three of the four fire detector zones in the switchgear room are operable and a fire watch is established to patrol the area once every two hours.

The roll-up fire door separating the diesel generators may be opened and left open provided that the two fire detection zones for the diesel generator rooms are operable and a fire watch is established to patrol the area once every two hours.

Basis

The fire protection system provides a means for detecting, alarming, and extinguishing plant fires. The system is divided into the fire detection subsystem and fire extinguishing subsystem.

The fire detection subsystem is an instrumentation system which alarms control room operators of a fire, indicating fire location on a panel in the control room and providing a local indication from the detector in the affected zone.

The fire extinguishing system includes the sprinklers which protect the Diesel Generator Rooms. Also included are the hose stations which protect the immediate vicinity outside the entire plant, hose cabinets inside the intake structure, and other miscellaneous equipment.

Specification 2.19(2) allows one of the four fire detection zones to be inoperable in the containment. One inoperable zone would not significantly reduce fire detection capability or margins of safety or protection for the following reasons:

(1) A large number of fire detectors at many locations and elevations exist in the containment vessel.

(2) During normal operation, containment fans provide complete circulation and mixing of containment air, thereby exposing most of the containment fire detectors to any locally produced combustion products.

(3) Normally, containment ventilation duct fire detectors are operable and are continuously exposed to air streams originating from all locations in the containment.

The functional integrity of the fire barrier penetrations ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the facility. This design feature minimizes the possibility of a single fire rapidly involving several areas of the facility prior to detection and extinguishment. The fire barrier penetrations are a passive element in the facility fire protection program and are subject to periodic inspections.

Fire barrier penetrations, including cable penetration barriers, fire doors and dampers are considered functional when the visually observed condition is the same as the as-designed condition. For those fire barrier penetrations that are not in the as-designed condition, an evaluation shall be performed to show that the modification has not degraded the fire rating of the fire barrier penetration.

During periods of time when a barrier is not functional, either (1) a continuous fire watch is required to be maintained in the vicinity of the affected barrier, or (2) the fire detectors on at least one side of the affected barrier must be verified OPERABLE and an hourly fire watch patrol established, until the barrier is restored to functional status.

The roll-up fire doors in the switchgear and diesel generator rooms provide the required separation, during plant operation, to preclude damage to both trains of equipment and allow the plant to achieve hot shutdown as required by 10 CFR 50, Appendix R. However, during periods of cold or refueling shutdown, 10 CFR 50, Appendix R, allows 72 hours to complete emergency repairs so that at least one train of equipment necessary to achieve or maintain cold shutdown is operable in the event both trains are damaged by a single fire. Since the only equipment required to maintain cold shutdown is the shutdown cooling system, which would require the operation of a LPSI pump, a component cooling water or raw water pump, and a shutdown cooling heat exchanger, this requirement could be met within 72 hours by completing necessary repairs with equipment and supplies located onsite.

Additionally, the operability verification of the fire detection system and establishment of a two-hour fire watch for these rooms would ensure the detection of a postulated fire such that damage would be minimal.

## DISCUSSION

The Omaha Public Power District installed 3-hour fire rated separation walls and roll-up fire doors in the Fort Calhoun Station switchgear and diesel generator rooms to provide fire protection for these redundant trains of equipment and to comply with the Commission's fire protection program requirements. The purpose of these fire walls and doors is to preclude damage to both trains of equipment for which one train is required to achieve and maintain hot shutdown of the plant. Technical Specification 2.19(7) presently provides the necessary administrative controls to ensure this objective is achieved. However, to achieve or maintain a cold or refueling shutdown condition, Appendix R to 10 CFR 50 states, "Both trains of equipment necessary to achieve cold shutdown may be damaged by a single fire, including an exposure fire, but damage must be limited so that at least one train can be repaired or made operable within 72 hours using onsite capability." This additional flexibility provides the District's principal justification for requesting a change in the control requirements for the subject fire doors and their functionality during operating modes 4 and 5. The Technical Specification change is delineated in proposed Section 2.19(9) and the accompanying "Basis." Since this proposed limiting condition for operation requires that the plant must be in the cold or refueling shutdown mode prior to invoking this Technical Specification, the only equipment that must be operable are those shutdown cooling system components (i.e., a LPSI pump and a shutdown cooling heat exchanger) and a CCW or raw water pump required to maintain the reactor in the cold or refueling shutdown condition. The District is confident that with the equipment and supplies maintained onsite, emergency repairs could be completed within 72 hours to ensure the operability of the necessary shutdown cooling system equipment, if necessary. Additional justification for requesting this change includes:

(1) Technical Specification 2.19(7) presently requires, for a nonfunctional fire barrier, that within one hour either (1) establish a continuous fire watch on at least one side of the affected penetration, or (2) verify the operability of fire detectors on at least one side of the penetration and establish an hourly fire watch patrol. The District proposes to provide the following measures while the switchgear and/or diesel generator room roll-up doors are open:

(a) Switchgear room - The District will require and verify that 3 of the 4 fire detector zones are operable and immediately establish a fire watch to patrol the area at least once every 2 hours. The 2-hour fire watch patrol would be completed by an operator during his normal plant tour.

(b) Diesel generator room - The District will require and verify that both fire detector zones are operable and immediately establish a fire watch to patrol the area at least once every 2 hours.

The District believes that requiring the operability verification of more fire detection zones than the specifications presently require and the establishment of a 2-hour fire watch patrol are sufficient measures to ensure detection of a fire in these areas.

(2) An unsafe working condition frequently exists in the switchgear room with the roll-up fire door maintained in the closed position during operating modes 4 and 5. Extensive maintenance and surveillance testing is conducted in this room during the cold and refueling shutdown modes and, thus, the potential for personnel injury is increased. Specifically, a worker sustaining an immobilizing injury in certain sections of the switchgear room while working on the breakers could only be reached by entering the room through the roll-up fire door. Since the District presently must maintain this door closed during modes 4 and 5 and because the shift supervisor maintains the key to the roll-up door, 15 to 20 minutes could elapse until the injured person could be retrieved and treated. The District maintains that leaving the roll-up door open would reduce a potential personnel safety hazard.

(3) Extensive work and personnel movement occurs in the switchgear and diesel generator rooms during modes 4 and 5 and maintaining the roll-up doors in the open position would facilitate the movement of necessary equipment and personnel to conduct and complete the required maintenance and surveillance testing.

The District believes the above justification and proposed compensating measures are sufficient to detect, mitigate, and repair the consequences of all plausible fires during operating modes 4 and 5. The benefits and increased flexibility achieved are possible without compromising the capability to maintain the plant in a safe shutdown condition.

Additionally, in accordance with Technical Specification 2.18(4), mechanical snubbers HCV-1040-S-1, 2, 3, 4, and 5 have been deleted from Table 2-6(b) of the Technical Specifications. These snubbers were located on the turbine driven auxiliary feedwater pump main steam supply piping. An engineering analysis determined that existing snubbers HCV-1040-S-1, 2, 3, and 5 could be replaced with rigid struts and HCV-1040-S-4 could be physically removed from the piping without impairing the ability of the piping system to withstand a design seismic event.

As a result of the upgrading of the auxiliary feedwater system (AFW) from control grade to safety grade, the District performed a detailed analysis of the auxiliary feedwater pump (AFW-10) main steam supply piping to determine optimal locations for restraints to seismically qualify the subject piping. The basis for deleting snubbers HCV-1040-S-1, 2, 3, 4, and 5 from the Technical Specifications are:

(1) A piping analysis, utilizing the computer simulation code T-PIPE, determined that existing snubbers HCV-1040-S-1, 2, 3, and 5 could be replaced with rigid struts and HCV-1040-S-4 could be eliminated without creating thermal overstressing or reducing the seismic resistance of the piping. The analytical

results were independently reviewed and verified by Gilbert/ Commonwealth Associates, and the snubber deletions were approved by the Safety Audit and Review Committee (SARC) in accordance with Technical Specification 2.18(4).

(2) Replacement and removal of the subject snubbers was desirable because they are International Nuclear Safeguards Corporation (INC) mechanical snubbers. IE Bulletin 81-01, dated January 27, 1981, identified INC mechanical snubbers as being prone to failure. Therefore, the District believes replacement of these INC snubbers was the optimal solution to maintaining the integrity of the AFW piping during thermal stressing and seismic events.

Mechanical snubbers HCV-327-S, 329-S, 331-S, and 333-S and SIS-112C, 112D, 112E, and 112F have been replaced with hydraulic snubbers and, thus, have been removed from Table 2-6(b) and placed on Table 2-6(a). These INC mechanical snubbers were replaced with equivalent or larger capacity hydraulic snubbers because the INC snubbers were identified in IE Bulletin 81-01 as a potential problem and the District believed it was prudent to replace them. The new hydraulic snubbers have increased system reliability by eliminating snubbers with potentially high failure rates and for which replacement or repair parts were unavailable. A piping reanalysis was not required since the hydraulic snubbers have an equal or greater capacity and are located in the exact positions of the previous snubbers.

Hydraulic snubbers have also been added at various locations for several safety-related systems as a result of further District engineering analysis. Utilizing the T-PIPE dynamic simulation code, snubber additions were deemed necessary to further increase piping rigidity by reducing potential piping accelerations and stresses from seismic loadings. The impact of thermally induced piping stresses was also considered in specifying snubbers additions instead of rigid restraints. The snubber additions are listed below:

| Snubber (Tag) No. | Subsystem No. | Analysis I.D. | Analysis Revision No. |
|---|---|---|---|
| ACS-384 | AC-215-A | VFBFJVM | 0 |
| ACS-386A | AC-215-A | VFBFJVM | 0 |
| ACS-386B | AC-215-A | VFBFJVM | 0 |
| *RWS-128B | RW-231-A | VCNJJJE | 1 |
| AFW-60 | N/A | AFWA307 | 0 |
| AFW-65 | N/A | AFWA307 | 0 |

*Snubber RWS-128B is an additional snubber that was installed in parallel with existing snubber RWS-128. To provide for proper identification, existing snubber RWS-128 is now designated RWS-128A and the new identical snubber is designated RWS-128B.

Hydraulic snubbers ACS-406 and 407 were added to the inlet and outlet piping of the lube oil cooler to reactor coolant pump RC-3C. These snubbers were added to mitigate the effects of vibration on this piping. Finally, hydraulic snubbers SIS-88-Upper and SIS-88-Lower were

removed as a result of the T-PIPE analysis and a single snubber, SIS-88, was added in their place. These snubber deletions were independently reviewed and approved by the SARC.

Snubber RCP-C1 has been added to Technical Specification page 2-78. This snubber was inadvertently deleted from Table 2-6(a) during the District's last snubber change amendment application, which resulted in Amendment No. 59. This snubber is now added to correct this typographical mistake.

The Omaha Public Power District replaced, removed, and added all of the aforementioned snubbers during the 1981 refueling outage. Revised pages 2-75, 2-77, 2-78, 2-81, 2-85, 2-86, 2-88, and 2-88a of the Fort Calhoun Station Technical Specifications are attached and include the changes as discussed above.

## JUSTIFICATION FOR FEE CLASSIFICATION

The proposed amendment is deemed to be Class III, within the meaning of 10 CFR 170.22, in that it involves a single safety concern.

ATTACHMENT C