

WOLF CREEK

NUCLEAR OPERATING CORPORATION

Robert C. Hagan
Vice President Engineering

October 11, 1995

ET 95-0111

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

Subject: Docket 50-482: Response to Generic Letter 95-07

Gentlemen:

Generic Letter 95-07, "Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves," dated August 17, 1995, requests certain actions be taken by licensees regarding the susceptibility of power-operated gate valves to pressure locking and/or thermal binding. In response to Generic Letter 95-07, Wolf Creek Nuclear Operating Corporation (WCNOC) will implement the requested actions of Generic Letter 95-07 by providing; 1) the screening criteria for valve susceptibility to pressure locking/thermal binding; 2) the results of this screening, and 3) descriptions of corrective actions taken, or other dispositions. This will be completed by the 180 day response date of February 14, 1996. Justifications for extension of this schedule to perform any remaining corrective actions will be provided at that time. In addition, WCNOC is maintaining involvement with the Westinghouse Owner's Group Pressure Locking/Thermal Binding Subcommittee to monitor valve testing and susceptibility evaluations for Westinghouse Pressurized Water Reactors.

Based on the preliminary screening evaluation required by Generic Letter 95-07, there are no gate valves at Wolf Creek Generating Station (WCGS) with safety-related opening functions that are equipped with hydraulic or air operators. The scope of valves affected by the pressure locking/thermal binding phenomenon at WCGS is limited to motor-operated valves. Solenoid operated valves and valves in air systems were not considered to be within the scope of this generic letter.

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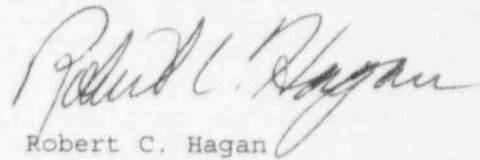
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To support the closure of Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance," a complete review of WCGS safety-related motor-operated gate valves was performed during 1994 to the Generic Letter 89-10, Supplement 6, guidelines. Of the 79 safety-related motor-operated gate valves, 13 valves were found to be susceptible to pressure locking and/or thermal binding and would have an adverse impact on plant safety upon failing to open. A basis for current operability or corrective actions taken to ensure operability are provided in the attached table.

If you have any questions concerning this submittal, please contact me at (316) 364-8831, extension 4553, or Mr. Richard D. Flannigan at extension 4500.

Very truly yours,



Robert C. Hagan

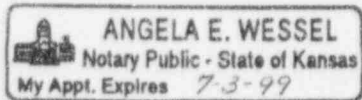
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Attachment

cc: L. J. Callan (NRC), w/a
D. F. Kirsch (NRC), w/a
J. F. Ringwald (NRC), w/a
J. C. Stone (NRC), w/a

STATE OF KANSAS)
) SS
COUNTY OF COFFEY)

Robert C. Hagan, of lawful age, being first duly sworn upon oath says that he is Vice President Engineering of Wolf Creek Nuclear Operating Corporation; that he has read the foregoing document and knows the content thereof; that he has executed that same for and on behalf of said Corporation with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.



By Robert C. Hagan
Robert C. Hagan
Vice President
Engineering

SUBSCRIBED and sworn to before me this 11th day of Oct., 1995.

Angela E. Wessel
Notary Public

Expiration Date July 3, 1999

Current Operability Basis for Motor-Operated Valves and Corrective Actions

Valve Number	Valve Function	Findings	Corrective Actions and Justifications
EJHV8840	Residual Heat Removal System to Hot Leg Recirculation Isolation	Found to be susceptible to pressure locking only.	Plant test procedures have been revised to eliminate the conditions inducing pressure locking during testing. During operation, valves may be susceptible if back leakage from RCS occurs through redundant check valves. Operating procedures currently address generic actions if hot leg recirculation valves fail to open. The consequences of not achieving Residual Heat Removal hot leg recirculation has been evaluated and the single failure of EJHV8840 alone has no adverse safety impact.
EMHV8802A & B	Safety Injection Pump Discharge to RCS Hot Leg Isolation	Found to be susceptible to pressure locking only.	Plant test procedures have been revised to eliminate the conditions inducing pressure locking during testing. During operation, valves may be susceptible if back leakage from RCS occurs through redundant check valves. Most recent surveillance indicates back leakage to be insignificant and below the previously evaluated limits for valve function. Operating procedures currently address generic actions if hot leg recirculation valves fail to open.
BBPV8702A & B EJHV8701A & B	Residual Heat Removal System Suction from RCS Hot Leg Isolation	Found to be susceptible to thermal binding and pressure locking.	No modifications or procedural changes will be made for corrective action because redundant means exist to provide the safety-related function of core cooling and system pressure relief.
ENHV0001 & 7	Containment Spray Pump Suction from Containment Recirculation Sump Isolation	Found to be susceptible to pressure locking only.	A temporary plant modification has been performed to fill the containment recirculation sumps with water in order to insulate the valves from LOCA fluid impingement and preclude the temperature change that would induce pressure locking. In addition, WCNOG has planned a potential modification to these valves during the eighth refueling outage immediately following the 180 day response date. The potential modification will eliminate the susceptibility to pressure locking without having the sumps filled with water. WCNOG will monitor industry tests to possibly justify no permanent modification. Thermal binding of EJHV8811A&B is prevented by procedural restrictions.
EJHV8811A & B	Residual Heat Removal System Suction from Containment Recirculation Sump Isolation	Found to be susceptible to pressure locking and thermal binding.	
EJFCV0610 & EJFCV0611	Residual Heat Removal Pump Minimum Flow Recirculation Valves	Found to be susceptible to thermal binding under specific plant heat-up mode transitions.	WCNOG has planned a modification to these valves during the eighth refueling outage immediately following the 180 day response date. The modification that may occur after the 180 day period is changing electrical control circuitry to close the valve on limit with soft-seating to preclude thermal binding. The susceptibility of EJFCV0610 and 611 occurs only on power ascension. The primary safety function of these valves is to close following a design basis accident.