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NRC-92-082

July 29, 1992

Document Control Desk
U. S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, DC 20555

Gentlemen:

DOCKETS 50-266 AND 50-301
PUMP AND VALVE IN-SERVICE TEST PROGRAM
VALVE RELIEF REQUESTS/COLD SHUTDOWN JUSTIFICATIONS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed are two requested revisions to our Pump and Valve In-Service Test (IST) Program.

The first requested revision, Valve Relief Request VRR-35, "Main Steam and Reactor Coolant Safety Valves," will permit main steam safety valves and pressurizer safety valves to be returned to service without having their valve set pressures retested following "Jack and Lap" procedures. These maintenance procedures involve the removal of 0.002 inch or less of seating material and have a predictable effect on the set pressure of the subject safety valve. In all cases, the valves will be returned to service with their valve set pressures within the tolerance specified by ASME/ANSI OM-1-1981, "Requirements for In-Service Performance Testing of Nuclear Power Plant Pressure Relief Devices." Hence, retesting to verify the valve set pressure is not required.

We are aware of the problems encountered by Duke Power Company when using "Jack and Lap" procedures on their pressurizer safety valves, manufactured by Dresser Industries, as discussed in NRC Information Notice 91-74, "Changes in Pressurizer Safety Valve Setpoints Before Installation." We believe, however, that our main steam and pressurizer safety valves, manufactured by Crosby Valve and Gauge Company, are sufficiently different in design that they will not experience similar problems.

As stated in enclosed VRR-35, we have received information from Crosby Valve and Gauge Company which specifies the calculated changes in valve set pressure following a "Jack and Lap" procedure in which not more than 0.002 inch of material is removed from the valve seating surface. Subsequent discussions with Crosby Valve and Gauge Company representatives confirm that they have test data which support these calculated changes in valve set pressure.

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The second requested revision, Cold Shutdown Justification CSJ-34, "Charging Pump Suction Valves," is required in order to avoid undesired and potentially serious plant transients during testing of certain charging pump suction valves.

We look forward to receipt of your response concerning these revisions to our program. Should you have any questions or require any additional information, please contact us.

Sincerely,



Bob Link
Vice President
Nuclear Power

Enclosures

Copies to: NRC Resident Inspector
NRC Regional Administrator, Region III
Adele DiBiasio, Brookhaven National Laboratory

RELIEF REQUEST NO. VRP-35

SYSTEMS: Main Steam (M-201, Sh 1; M-2201, Sh 1)
Reactor Coolant (541F091, Sh 1 & 2; 541F445,
Sh 1 & 2)

COMPONENTS: MS-02005 (Units 1&2) MS-02006 (Units 1&2)
MS-02007 (Units 1&2) MS-02008 (Units 1&2)
MS-02010 (Units 1&2) MS-02011 (Units 1&2)
MS-02012 (Units 1&2) MS-02013 (Units 1&2)
RC-00434 (Units 1&2) RC-00435 (Units 1&2)

CATEGORY: C

FUNCTION:

Main steam safety valves provide steam generator over pressure protection and an additional heat sink for core cooling. Pressurizer safety valves provide over-pressure protection for the reactor coolant system.

SECTION XI REQUIREMENT:

For safety valves, corrective action and additional testing shall be in accordance with the requirements of ASME/ANSI OM-1-1981, for valves not meeting acceptance criteria of ASME/ANSI OM-1-1981. (IWV-3513)

For safety valves, refurbished equipment shall be subjected to tests performed in the following sequence:

- (a) visual examination
- (b) seat tightness determination
- (c) set pressure determination
- (d) determination of compliance with the Owner's seat tightness criteria
- (e) determination of electrical characteristics and operation of bellows alarm switch
- (f) verification of the integrity of balancing devices on balanced valves
- (g) determination of operation and electrical characteristics of position indicators

(ASME/ANSI OM-1-1981, 7.3.1.1 and 7.4.1.1)

BASIS FOR RELIEF:

Experience has shown that, for the valves in question, there exists an absolute maximum change in relief set pressure following a "Jack and Lap" procedure where not more than 0.002 inch of seating material is removed. Transmittals from Crosby

Valve and Gage Company show the calculated maximum change in valve set pressure resulting from a 0.002 inch "Jack and Lap" is 2.3 psig (0.2%) for main steam safety valves, and 9.0 psig (0.36%) for pressurizer safety valves. Subsequent telephone conversations with Crosby Valve and Gage Company Engineering (Crosby) confirmed that Crosby has performed actual tests to substantiate their calculations. The percentage change in nameplate set pressure in each case is well below the 3% change acceptance criteria called out in ASME/ANSI OM-1-1981, 1.3.3.4. Thus, the change in set pressure due to the "Jack and Lap" is within the tolerance specified by ASME/ANSI OM-1-1981.

ALTERNATE TESTING:

Following "Jack and Lap" procedures on either a main steam safety valve or pressurizer safety valve in which the maximum total amount of seating material removed is not more than 0.002 inch, no set pressure test will be performed prior to returning the valve to service provided:

- 1, The calculated maximum change in set pressure is applied to the valve set pressure obtained prior to the "Jack and Lap" procedures. This is 0.2% for Main Steam Safety Valves and 0.36% for Pressurizer Safety Valves.
- 2) The newly calculated valve set pressure is within the 3% tolerance of valve nameplate set pressure called out in ASME/ANSI OM-1-1981.

If the above conditions are not met, the valve will have its set pressure tested prior to return to service as specified in ASME/ANSI OM-1-1981, 7.3.1.1.

In every case, all testing other than the set pressure determination will be performed as required in ASME/ANSI OM-1-1981.

STATUS:

Submitted to the NRC for review and approval July 1992.

COLD SHUTDOWN JUSTIFICATION CSJ-34

CV-112B (Units 1&2) Charging Pump Suction MOV From the RWST
CV-357 (Units 1&2) Charging Pump Suction Check Valve from
the RWST

Exercising these valves to the open position during plant operation would result in the injection of ≈ 2000 ppm borated water from the refueling water storage tank (RWST) to the reactor coolant system (RCS). This would result in an undesirable reactivity transient leading to a temperature transient with the potential for a plant trip and safety injection.