



UNITED STATES
NUCLEAR REGULATORY COMMISSION
LISLE, ILLINOIS 60532

February 22, 2004

MEMORANDUM TO: Christine Lipa, Chief
Branch 4
Division of Reactor Projects

FROM: David Hills, Chief /RA/
Mechanical Engineering Branch
Division of Reactor Safety

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION
DRS INPUT TO INTEGRATED REPORT 50-346/04-02

Attached is the report input for Davis Besse Nuclear Power Station, Inspection Report 50-346/04-02. This report input documents completion of an inspection to review and close URI 50-346/02-014-06 -Question Regarding Licensee Compliance with Code Relief Valve Requirements. I have reviewed this input and have determined it is ready for distribution to the licensee and dissemination to the public.

Attachment: Input to Inspection Report 50-346/04-02

CONTACT: M. Holmberg, DRS
(630) 829-9748

DOCUMENT NAME: ML040540581.wpd

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H-10

Cover Letter

X Input below, no findings of significance were identified.

Title Page

Inspector: M. Holmberg, Reactor Inspector

SUMMARY OF FINDINGS

Modify second paragraph as follows:

The inspections were conducted by resident and inspectors based in the NRC Region III office.

A. Inspector-Identified and Self-Revealed Findings

None.

B. Licensee-Identified Violations

None.

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems (71152)

.1 (Closed) URI 05000346/2002014-06: Question Regarding Licensee Compliance with Code Relief Valve Requirements.

In November of 2002, the NRC identified a concern for potentially inadequate over-pressure (OP) protection for the containment air coolers (CACs), decay heat removal (DHR) coolers, emergency diesel generator jacket water (EDGJW) heat exchangers and associated system piping. For example, the NRC had questioned the use of locked open valves between the relief valve and the Code components requiring relief protection with respect to meeting the American Society of Mechanical Engineers (ASME) Code requirements for positive controls and interlocks on stop valves.

On January 23, 2004, the inspectors completed an on-site inspection of this concern focused on the location of the system relief valves to ensure OP protection was provided for the CACs, EDGJW heat exchangers and DHR coolers under operating/design basis conditions. The inspectors discussed the specific requirements and system configurations associated with OP protection with NRC staff in the Office of Nuclear Reactor Regulation and no concerns for Code compliance were identified. Specifically, the inspectors confirmed that:

- The EDGJW coolers and CACs were not Code stamped vessels and thus did not have component level design requirements governing OP protection. The

OP protection for the CACs was provided by pressure relief devices for the service water system in which the CACs were installed.

- The DHR coolers were Code stamped vessels, which had component level OP protection requirements from the original design Code (ASME Code, Section III and Section VIII, 1968 Edition). The inspectors confirmed that the configuration and location of the system OP protection devices was consistent with these requirements.
- For the component cooling water, service water and decay heat removal piping systems which contained these components, the applicable design Code was the ASME Code, Section III, 1971 Edition. This design Code contained specific requirements associated with the location, capacity and types of relief protection required. The inspectors confirmed that the configuration and location of the system OP protection devices was consistent with these requirements for the piping sections containing these components.

For these systems and components, the licensee had not produced a written document that explicitly identified how the applicable OP protection requirements from the design Codes were implemented. The inspectors were concerned that without an explicit written OP protection record, changes in plant operating lineups or system components could render the Code OP protection strategy ineffective and result in damaged equipment. Based upon this observation, the licensee implemented corrective actions (CR 04-00582) to document the OP protection strategy for these systems and components in controlled safety-related calculations.

The inspectors did not identify any normal or emergency operating system configurations or lineups that would result in isolating the CACs, EDG JW coolers and DHR coolers from OP protection devices, without considering these components and associated piping systems inoperable. Further, no deviations from applicable Code requirements were identified with respect to location of relief protection devices for these components. This URI is closed.

4OA6 Meetings

.2 Interim Exit Meetings

An interim exit meeting was conducted for:

- Closure of URI 50-346/02-014-06 with Mr. B. Allen on January 23, 2004

KEY POINTS OF CONTACT

Licensee

B. Allen, Plant Manager
J. Grabnar, Manager, Design Engineering
P. Mahoney, Design Engineering.

LIST OF ITEMS OPENED CLOSED AND DISCUSSED

Open

None

Closed

50-346/02-014-06 URI Question Regarding Licensee Compliance with Code Relief Valve Requirements.

Discussed

None

LIST OF DOCUMENTS REVIEWED

40A2 Problem Identification and Resolution

Condition Report 04-00161; CAC Outlet Valves; dated January 6, 2004

Condition Report 03-10371; Various Containment Air Cooler Related Equipment; dated December 1, 2003

Condition Report 03-06837; Various; dated August 22, 2003

Condition Report 02-07640; No ASME Code Review Documented; dated October 8, 2002

Condition Report 02-06860; Various Heat Exchangers; dated September 27, 2002

PCAQR 88-0737; ASME Code Relief Protection; dated September 20, 1988

SE-95-0056; Removal of Containment Air Cooler Relief Valves; dated July 3, 1995

OS-020 Sh 1; Operational Schematic Service Water System; Revision 64

OS-020 Sh 2; Operational Schematic Service Water System; Revision 33

OS-004 Sh 1; Operational Schematic Decay Heat Removal Low Pressure Injection System; Revision 36

OS-004 Sh 2; Operational Schematic Decay Heat Removal Low Pressure Injection System; Revision 04

OS-021 Sh 1; Operational Schematic Component Cooling Water System; Revision 31

OS-021 Sh 2; Operational Schematic Component Cooling Water System; Revision 21

OS-021 Sh 3; Operational Schematic Component Cooling Water System; Revision 9

OS-041 Sh 1; Operational Schematic Emergency Diesel Generator Systems; Revision 19

DB-OP-06316; Diesel Generator Operating Procedure; Revision 12

DB-OP-06012; Decay Heat and Low Pressure Injection System Operating Procedure; Revision 16

DB-OP-06016; Containment Air Cooling System Procedure; Revision 13

DB-OP-06262; Component Cooling Water System Procedure; Revision 7

DB-OP-02000; RPS, SFAS, SFRS Trip, or SG Tube Rupture; Revision 12

EWR 02-0343-00; Containment Air Cooler Upgrades; dated June 7, 2003

UFSAR Change Notice 97-073; Code Discrepancies; dated July 31, 1992

Specification No. 7749-M-400; Technical Specification for Containment Air Cooler Units; dated February 22, 1977

Specification No. 1024/1069; Heat Exchangers for Auxiliary System Service; dated November 14, 1968

Specification No. M-200; Piping Classes; Revision 6

Drawing M-033; Decay Heat Removal System and Emergency Core Cooling Systems; Revision 21

Drawing M-033B; Decay Heat Removal Train 1; Revision 43

Drawing M-033C; Decay Heat Removal Train 2; Revision 19

Drawing M-0368; Component Cooling Water System; Revision 31

Drawing M-036; Component Cooling Water System; Revision 15

Drawing M-041; Service Water System; Revision 18

Drawing M-041C; Service Water System for Containment Air Coolers; Revision 24

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access and Management System
ASME	American Society of Mechanical Engineers
CAC	Containment Air Cooler
CCW	Component Cooling Water
CR	Condition Report
DHR	Decay Heat Removal
EDGJW	Emergency Diesel Generator Jacket Water
OP	Over-pressure
URI	Unresolved Item