

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

1 On May 11, 1979, the District was informed by its A/E (Gibbs & Hill) that seismic

support appeared to be inadequate for the component cooling water piping to contain-

ment cooling and filtering unit VA-3A. At 1630 on May 15, 1979, the preliminary indi-

cation was confirmed. Also at this time, containment cooling and filtering unit VA-3A

was immediately declared inoperable in accordance with Technical Specification 2.4.

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

Gibbs & Hill had been concerned about damaging interaction between the cooling piping

and cooling unit. However, analyses performed after discovery of the support defi-

ciency indicated that clamping the piping to the cooling unit would provide adequate

seismic support without damaging interaction. Suitable U-bolts were installed on

May 17, 1979.

NAME OF DEBARRED Barry Mottley

24CNE

402-536-4496

7905300 ~~555~~ 557

LER 79-015
Omaha Public Power District
Fort Calhoun Station Unit No. 1
Docket No. 05000285

Attachment No. 1

Safety Analysis

Technical Specification 2.4 states that:

During power generation one of the components listed above [VA-3A]...may be inoperable provided that the corresponding redundant components shall be tested to demonstrate operability. If the inoperable component is not restored to operability within seven days, the reactor shall be placed in a hot shutdown condition within 12 hours.

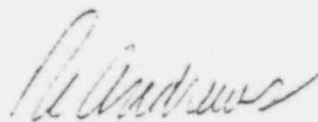
Shortly after VA-3A was declared inoperable, the redundant components described in Technical Specification 2.4 were demonstrated to be operable. Modifications required to provide adequate seismic restraint of the component cooling water piping were completed within the allotted seven days. Thus, the provisions of the Fort Calhoun Station Technical Specifications were strictly complied with.

It is emphasized that the design of Fort Calhoun Station provides three (3) different means of limiting containment pressure below the design value following a DBA:

- (1) the containment spray system;
- (2) two containment air cooling and filtering units (VA-3A and VA-3B);
and
- (3) one containment air cooling and filtering unit (VA-3A or VA-3B)
and both containment air cooling units (VA-7C and VA-7D).

Each of the components discussed above, with the exception of VA-3A, was operable prior to resolution of the seismic restraint issue. Thus, two independent methods of limiting containment pressure were available at all times.

In conclusion, it is the District's position that continued operation of Fort Calhoun Station during design and installation of the additional seismic restraints did not present a hazard regarding the health and safety of the public.



LER 79-015
Omaha Public Power District
Fort Calhoun Station Unit No. 1
Docket No. 05000285

Attachment No. 2

Cause Description/Corrective Action

Following issuance of IE Bulletin 79-07, the District had asked Gibbs & Hill to perform a comparative analysis on sections of piping in three different piping systems to determine how the results of Fort Calhoun Station's static seismic analyses compared with those of present day analyses. During this review, it was discovered that the component cooling water piping to containment air cooling and filtering unit VA-3A was not adequately restrained. Gibbs & Hill reported this apparent deficiency to the NRC and the District on May 11, 1979. At this time, it was agreed between the District and the NRC that, should reanalysis confirm that seismic criteria were not met, unit VA-3A would be declared inoperable and the provisions of Technical Specification 2.4 applied.

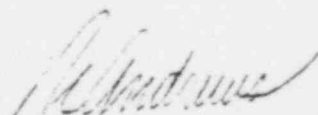
On May 12, 1979, District personnel entered the containment to verify the accuracy of applicable drawings. The drawings were correct with the exception of a structural member in the VA-3A housing which could serve as a horizontal pipe restraint.

On May 15, 1979, Gibbs & Hill informed the District that reanalysis had confirmed inadequacy of the seismic restraints. VA-3A was immediately declared inoperable and the provisions of Technical Specification 2.4 applied (see attached Safety Analysis).

Based upon an evaluation by the District and Gibbs & Hill, it was determined that the original design had provided seismic restraint by anchoring the component cooling water piping to the top of the VA-3A housing with U-bolts. The U-bolts were initially installed in accordance with this design. However, at some time during construction of the plant, Gibbs & Hill performed a hand analysis which indicated that nine (9) U-bolts could be eliminated, while still providing adequate seismic restraint. The nine (9) U-bolts were subsequently removed and drawings revised accordingly.

Calculations performed following the revelation of May 15, 1979, showed that, if the nine (9) U-bolts were replaced, the component cooling water piping would be adequately restrained. American Air Filter, manufacturer of the VA-3A unit, was contacted regarding potential excessive stresses caused by installation of the U-bolts. American Air Filter stated that these potential stresses were, in fact, within acceptable limits. Therefore, it was resolved that the seismic restraint problem could be eliminated by reinstallation of the missing U-bolts.

All nine (9) missing U-bolts were installed on May 17, 1979, at which time containment air cooling and filtering unit VA-3A was returned to operable status. Applicable drawings will be revised to reflect this modification.



LER 79-015
Omaha Public Power District
Fort Calhoun Station Unit No. 1
Docket No. 05000285

Attachment No. 3

Failure Data

On June 3, 1977, OPPD discovered that certain Raw Water system pipe column supports were inadequate to meet seismic design criteria. Additional investigation revealed that four component cooling water pipe column supports were also inadequate for seismic design loads. This event and corrective actions are described in LER 50-285/77-19 and LER 50-285/77-19 Supplement 1.

No other instances of design or installation deficiencies have been identified in safety related piping at Fort Calhoun Station.

W. Andrews