**Washington Public Power Supply System**
P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000



March 19, 1984
G01-84-0073

Mr. J.B. Martin
Regional Administrator
Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596

Subject: NUCLEAR PROJECT 1
DOCKET NO. 50-460
REPORTABLE CONDITION 10CFR50.55(e)
RUSKIN BACKDRAFT DAMPER COUNTERWEIGHT ASSEMBLY

Reference: Telecon, CR Edwards, Supply System to DP Haist, NRC, same subject, dated March 2, 1984

In the above referenced telecon the Supply System informed your office of a reportable condition under 10CFR50.55(e).

The enclosed Attachment A provides a statement of the identified condition and our proposed plan for corrective actions.

This letter is our formal notification of this deficiency as a reportable condition under 10CFR50.55(e). We will provide your office with a status report on the progress of the subject condition prior to restarting construction.

If you have any questions or desire further information, please advise.

Bill Root

R.W. Root, Director
WNP-1 Program

RWR:TED:cab

Attachment

cc: TA Mangelsdorf, BPC-861
V Mani, UE&C-897
Document Control Desk, NRC
EC Haren, UE&C-895
FDCC-899
ORM-847



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ATTACHMENT A
WNP1
DOCKET NO. 50-460
REPORTABLE CONDITION 10CFR50.55(e)
RUSKIN BACKDRAFT DAMPER COUNTERWEIGHT ARM ASSEMBLY

## 1.0 BACKGROUND

Ruskin Manufacturing Co. notified its customer University Nuclear Systems, Inc. (UNSI) of a deficiency in some backdraft damper counterweight assemblies, which in some instances do not meet the specified seismic qualification criteria.

The backdraft damper manufacturer, Ruskin Manufacturing Co., has reported the design deficiency to the NRC under the guidelines of 10CFR Part 21.

University Nuclear Systems, Inc. the HVAC contractor for the Supply System Nuclear Project No. 1 has advised the Supply System of the deficiency, and submitted a seismic report and drawings from Ruskin Manufacturing, on February 8, 1984.

## 2.0 DESCRIPTION OF THE DEFICIENCY

Some counterweight assemblies on backdraft dampers supplied for WNP-1 do not meet the seismic criteria outlined in Section 20A of the 9779-216 HVAC Contract Specification. An analysis indicated that under a postulated seismic event, the arm of some of the counterweight assemblies could break and the backdraft damper would not remain closed.

## 3.0 ANALYSIS OF SAFETY IMPLICATION

Failure of the counterweight assembly will prevent the damper from remaining closed and will cause one or a combination of the following conditions, depending on the particular physical duct layout:

a) Some air will be bypassing the ductwork distribution system through the redundant air handling unit, thus causing the served area temperature setpoint not to be maintained.

b) Some contaminated air may be discharged into non-contaminated ductwork.

c) The air static pressure balance of an area may be upset causing unwanted air migration patterns from potentially contaminated areas into cleaner areas.

## 4.0 CAUSE OF THE DEFICIENCY

Ruskin determined that their previous Seismic Report No. 1023 calculations for backdraft dampers models CBS-7 and CBS-8 did not include the counterweight arm assemblies and could result in some backdraft dampers not meeting the requirements of the Supply System HVAC Specification 9779-216, Section 20A.

## 5.0 STATUS OF THE CORRECTIVE ACTION

Ruskin Manufacturing has submitted a recommendation for strengthening the counterweight arm assemblies and a revised Seismic Report for the 27 backdraft dampers affected. None of these dampers are installed and are segregated in UNSI's warehouse at present. (Bechtel Non-Conformance Report No. BNCR-216-002).

The Supply System's Architect Engineer, United Engineers and Constructors, Inc, has approved Ruskin's revised Seismic Report and Ruskin's fix recommendation.

The additional counterweight arm stiffeners have been manufactured are are currently at Ruskin's manufacturing plant.

Due to the extended construction delay status at WNP-1, the counterweight arm stiffener installation will be delayed until construction resumes. As a result, an update of this report will be provided at restart of construction.

## 6.0 ACTIONS TO PREVENT RECURRENCE

Implementation of the above corrective actions will assure that there are no further problems with backdraft damper counterweight assemblies.