



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

APR 22 1985

PDR-06

Jerry S. McDevitt, Esquire
Kirkpatrick and Lockhart
1500 Oliver Building
Pittsburgh, PA 15222


IN RESPONSE REFER
TO FOIA-85-166
AND FOIA-85-181

Dear Mr. McDevitt:

This letter completes our response to your March 8 and 15, 1985, letters in which you requested, pursuant to the Freedom of Information Act (FOIA), specified documents regarding an alleged deficiency with certain model 272 grilles furnished by Titus Products for installation at the Palo Verde and Clinton nuclear power plants.

Since our April 9, 1985, response to these requests, our staff has identified additional records responsive to these requests. We are placing copies of these records, identified on enclosed Appendix B, in the NRC Public Document Room (PDR) located at 1717 H Street, NW, Washington, DC 20555. The records will be filed in PDR folder FOIA-85-166/FOIA-85-181 under your name.

Sincerely,


J. M. Felton, Director
Division of Rules and Records
Office of Administration

Enclosure: As stated

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PDR FOIA
MCDEVIT85-166 PDR

Appendix B to FOIA-85-166 and FOIA-85-181

ITEM NO.	DATE	NO. PAGES	DESCRIPTION
1.	11-6-84	4	Ltr from Ruskin Manufacturing Company to NRC (I&E) re: Part 21 (fire dampers failure to close under normal duct pressure)
2.	3-29-85	4	Ltr from WPPSS to NRC Region V subj: 10 CFR 50.55(e) Titus Model 272 Trille Tension Wire (D/N #58)
3.	8/27/84	1	Morning Report - Region V - Fire dampers were found to close inconsistently...
4.	8/28/84	4	Morning Report - Region V - " " "
5.	9/22/84	1	Outstanding Item - Palo Verde Unit 1
6.	9/19/84	3	Ltr from APS to NRC Region V subj: Interim Report - DER 84-56 A 50.55(e) Potentially Reportable Deficiency Relating to Fire Dampers Close Inconsistently
7.	10/30/84	1	Ltr from ANPP to NRC Region V subj: Time Extension for Report DER 84-56
8.	11/16/84	1	Ltr from ANPP to NRC Region V subj: Time Extension for Report - DER 84-56
9.	11/28/84	1	Ltr from ANPP to NRC Region V subj: Time Extension for Report - DER 84-56
10.	12/8/84	5	Ltr from ANPP to NRC Region V subj: Final Report - DER 84-56
11	3/22/85	18	Ltr from NRC Region V to APPS subj: NRC inspection of Palo Verde Units 1, 2 and 3
12.	3/11/85	1	Record of telephonic Part 21 report.



RUSKIN

Division of Philips Industries Inc.

Box 129
Grandview, Missouri 64030
Phone 816 761 7476
TELEX 42 4192

Factories: Parsons and Great Bend, Kansas; Anaheim, California;
Minden, Louisiana, and Bronx, New York

Representatives in all Major Cities

November 6, 1984

Director, Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 10555

Sir:

In accordance with the requirements of 10 CFR part 21, Ruskin Manufacturing Company, located at 3900 Dr. Greaves Road, Grandview, Missouri 64030, is herewith reporting that we have discovered a deficiency with equipment furnished by Ruskin Manufacturing Company for Nuclear Power Plant application.

On August 7, 1984 Ruskin received a letter from The Waldinger Corporation addressing seven (7) fire dampers failure to close under normal duct pressure at Palo Verde Nuclear Generating Station.

On August 13, 1984 Ruskin visited the jobsite to inspect dampers. The results of the inspection revealed damper condition to exhibit bent blades, bent blade tracks, rust and zinc rich paint on springs.

On August 20, 1984 after Engineering review of inspection results, Ruskin again visited the jobsite for Engineering review of above referenced damper conditions. As a result of this review Ruskin recommended that the blade packages be replaced in the affected fire dampers.

On October 30, 1984, Ruskin was notified, by The Waldinger Corporation, that the new blade packages had been installed and tested. The fire dampers with the newly installed blade packages would still not cycle under normal duct pressure.

Ruskin Engineering immediately began to evaluate the problem to determine the cause of the dampers failure to close under air flow. Results of this evaluation indicated the test methods originally utilized to test dampers under flow may not accurately depict actual installed conditions.

Ruskin fire dampers were tested in accordance with AMCA 500, test figure 5.5, mounted on the face of the test tunnel. Actual installed condition, in ductwork, may not result in proper performance as tested to AMCA. Ruskin, on November 2, and 5 1984, performed air flow tests in accordance with AMCA 500 with damper mounted on face of tunnel as well as with damper mounted in ductwork. The results of this test indicated that face mounted damper would close at much higher static pressure than the damper which was installed in ductwork.

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RUSKIN 05000245

IE19

November 6, 1984
U. S. Nuclear Regulatory Commission
Page 2

Since no facility exists to properly test dampers under flow that would simulate all field installed conditions, and relationship between face mounted damper and damper installed in ductwork cannot be accurately calculated, Ruskin recommends that fire dampers supplied with closure springs, which require closure under air flow conditions, be tested to verify proper operation. This condition affects only interlocking blade fire dampers Model IBD-21, IBD-23 and NIBD-23 supplied with closure springs by Ruskin.

Ruskin is currently researching methods to modify fire dampers to ensure closure under air flow.

Attachment 1 to this letter identifies the affected jobsites by location and the number of units supplied to each.

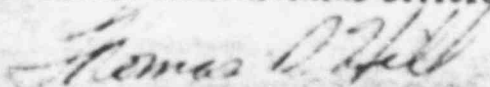
In closing, please find enclosed a copy of the letter describing the situation contained in this letter, which will be sent to each affected site.

If further questions should arise, please contact us at once.

Thank you for your cooperation.

Sincerely,

RUSKIN MANUFACTURING DIVISION



Thomas D. Hill
President

Enclosures: Attachment 1
Notification Form Letter

NOTE: For further discussions, questions, or concerns on this matter, please contact:

Richard J. Yarges
Ruskin Manufacturing Division
(816) 761-7476



RUSKIN®

Division of Philips Industries Inc.

Box 129
Grandview, Missouri 64030
Phone 816 761 7476
TELEX 42 4192

Factories: Parsons and Great Bend, Kansas; Anaheim, California,
Minden, Louisiana; and Bronx, New York

Representatives in all Major Cities

Attention:

Subject: Fire Damper Closure Under Air Flow
Ruskin Interlocking Blade Fire Dampers
Model Numbers IBD-21, IBD-23, NIBD23

It has recently come to our attention that some fire dampers will not close under air flow conditions.

Ruskin has determined that our test methods utilized for closure under air flow may not accurately depict actual field installed conditions. Ruskin fire dampers, as recommended by AMCA 500, were tested per figure 5.5, face mounted on the tunnel. Ruskin has discovered that when dampers are tested per figure 5.3, mounted in ductwork, that the performance of the damper under air flow is substantially reduced. Additionally, since Underwriters Laboratories do not require dampers to be tested under air flow conditions, this discovery will in no way affect the Fire rating of the damper or the U.L. label as installed by Ruskin. This condition affects only these dampers supplied with closure springs, by Ruskin.

Therefore, Ruskin recommends that fire dampers supplied for your project with closure springs, which require closure under air flow conditions, be tested to verify proper operation.

Ruskin Manufacturing Company has notified the Nuclear Regulatory Commission of this situation in accordance with the requirements of 10 CFR part 21.

Ruskin is currently researching methods to modify fire dampers to ensure proper closure and will be contacting you when additional information is available.

Sincerely,

RUSKIN MANUFACTURING DIVISION

Browns Ferry Nuclear Plant
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 27902
11 Units

Sequoyah Nuclear Plant
Tennessee Valley Authority
See Above
64 Units

Watts Bar Nuclear Plant
Tennessee Valley Authority
See Above
344 Units

Bellefonte Nuclear Plant
Tennessee Valley Authority
See Above
144 Units

Yellow Creek Nuclear Plant
Tennessee Valley Authority
See Above
204 Units

Palo Verde Nuclear Generating Station
The Waldinger Corporation
P.O. Box 215
Buckeye, Arizona 85326
963 Units

Turkey Point
Florida Power and Light
P.O. Box 3088
Florida City, Florida 33034
2 Units

W.P.P.S.S. Unit 1
Bechtel Power Corporation
P.O. Box 650
Richland, Washington 99352
303 Units

Maine Yankee Atomic Power
Maine Yankee
R.R. 2 Box 3270
Wiscusset, Maine 04578
20 Units

Diablo Canyon
Pacific Gas and Electric
77 Beal St.
San Francisco, California 94106
19 Units

Hope Creek
Bechtel Construction, Inc.
P.O. Box 3965
San Francisco, California 94119
893 Units

Clinton
Zack Company
4600 W. 12th Place
Chicago, Illinois 60650
262 Units

Midland
Zack Company
See Above
366 Units

LaSalle
Zack Company
See Above
106 Units

Wm. H. Zimmer Nuclear Power Station
Waldinger-Young & Bertke
2601 Bell Avenue
Des Moines, Iowa 50321
5 Units

Waterford #3
Louisiana Power and Light
142 Delaronde St.
New Orleans, Louisiana 70174
26 Units

Washington Public Power Supply System

Box 1223 Elma, Washington 98541 (206) 482-4428

March 29, 1985

G03-85-167

Docket No. 50-508

U. S. Nuclear Regulatory Commission, Region V
Office of Inspection and Enforcement
1450 Maria Lane, Suite 260
Walnut Creek, California 94596-5368

Attention: Mr. D. F. Kirsch, Acting Director
Division of Reactor Safety and Projects

Subject: NUCLEAR PROJECT NO. 3
10 CFR 50.55(e) DEFICIENCY
TITUS MODEL 272 GRILLE TENSION WIRES (D/N#58)

On March 11, 1985, the Supply System notified your office of a potential 10 CFR 50.55(e) deficiency concerning the subject condition. A subsequent Engineering/Licensing evaluation has determined that if the deficiencies remained uncorrected they could have affected adversely the safety of operations of the plant. Therefore, the subject condition is reportable in accordance with the provisions of 10 CFR 50.55 (e).

Attached is a Supply System approved Interim Report. The report provides a description of the deficiency, analysis of safety implications and corrective actions taken/planned. A Final Report will be prepared as soon as information on the nature of the rework and a schedule is received from the Vendor (Titus).

8504/80664

4AP.

2. IE-27

Should you have any questions or desire further information, please contact me directly.

Roger N. Williams
for A. D. Kohler (760)
WNP-3 Program Director

DRC/cae

Attachment

cc: Mr. J. A. Adams, NESCO
Mr. D. Smithpeter, BPA
Mr. W. L. Bryan, Washington Water Power Company
Mr. R. V. Myers, Puget Sound Power & Light Company
Mr. W. L. Weislogel, Pacific Power & Light aCompany
Mr. B. D. Withers, Portland General Electric Company
Mr. J. R. Lewis, Bonneville Power Administration
Ebasco, Elma
Docket Control Desk - U. S. NRC

WASHINGTON NUCLEAR PROJECT NO. 3
(DOCKET 50-508)
10 CFR 50.55 (e) DEFICIENCY
INTERIM REPORT
TITUS MODEL 272 GRILLE TENSION WIRES (D/N#58)

DESCRIPTION OF DEFICIENCY

Grilles are used to direct air flow exiting from the conditioned air supply ducts to spaces requiring ventilation.

Titus Model 272 Grilles are used in the following safety-related HVAC systems in WNP-3:

- Control Room HVAC
- Electric Equipment Areas HVAC
- Battery Room HVAC
- RAB Main Ventilation System
- Diesel Fuel Oil HVAC
- Diesel Generator HVAC
- Fuel Handling Building HVAC

The Vendor, Titus Products, has identified the following deficiency in their Model 272 Grilles. If the blades are closed, some of the tension wires used for adjustment of blade position will not remain in place (i.e., they will fall off the grilles).

The Vendor (Titus) has stated that this deficiency would prevent the HVAC systems on which the grilles are used from functioning as designed, since it would cause the grille blades to remain shut, thereby preventing air flow. One design objective of these ventilation systems is to supply fresh uncontaminated air to various areas of the plant.

ANALYSIS OF SAFETY IMPLICATIONS

The problems with these grilles, if left uncorrected, could reasonably be postulated to adversely affect the safety of the plant, since the result would be to prevent conditioned air flow to critical areas of the plant. This would adversely affect efforts to mitigate or prevent release of off-site radiation. This deficiency, therefore, is considered reportable under the criteria of 10 CFR 50.55(e).

CORRECTIVE ACTIONS

Titus has stated that they have conducted tests and have determined that the necessary rework would consist of replacing the existing tension wires and adding retention clips. It is anticipated that this work will be done in the Vendor's shop.

At the present time, the safety-related Titus Model 272 Grilles are not yet installed, and are located in the WNP-3 Warehouse. It is not known, at this time, when Titus will accept these Model 272 Grilles back at their plant for rework. Titus Products has been purchased by another interest. Since the new owners are not responsible for this deficiency, the rework requires a commercial agreement between the parties involved. The date for completion of the commercial agreement has not been established, and the schedule for rework is, therefore, indefinite.

A Final Report will be prepared as soon as information on the exact nature of the rework and a schedule is received from Titus.

RECEIVED
NRC

Arizona Public Service Company

1984 SEP 24 PM 4: 06

September 19, 1984
ANPP-30569-TDS/TRB

U. S. Nuclear Regulatory Commission
Region V
Creskide Oaks Office Park
1450 Maria Lane - Suite 210
Walnut Creek, CA 94596-5368

Attention: Mr. T. W. Bishop, Director
Division of Resident
Reactor Projects and Engineering Programs

Subject: Interim Report - DER 84-56
A 50.55(e) Potentially Reportable Deficiency Relating To Fire
Dampers Close Inconsistently.
File: 84-019-026; D.4.33.2

Reference: Telephone Conversation between J. Ball and T. Bradish on
August 22, 1984

Dear Sir:

The NRC was notified of a potentially reportable deficiency in the
referenced telephone conversation. At that time, it was estimated that a
determination of reportability would be made within thirty (30) days.

Due to the extensive investigation and evaluation required, an Interim
Report is attached. It is now expected that this information will be
finalized by October 31, 1984, at which time a complete report will be
submitted.

Very truly yours,

EE Van Brunt ASK

E. E. Van Brunt, Jr.
APS Vice President
Nuclear Production
ANPP Project Director

EEVB/TRB/nj
Attachment

cc: See Page Two

8410090495
9pp

IE-276.

INTERIM REPORT - DER 84-56
POTENTIAL REPORTABLE DEFICIENCY
ARIZONA PUBLIC SERVICE COMPANY (APS)
PVNGS UNIT 1

I. Potential Problem

SFR 1HJ-153 identified that fire dampers were found to close inconsistently. NCRs SM-4579 and -4580 identified dampers HJB-M11, HJN-M102, HJB-M08, HJB-M15, HJN-M60, HJN-M61, HJN-M62, and HJN-M107 as not closing fully under normal operating flow during the CO₂ and Halon System pre-op testing.

II. Problem Resolution Plan

Bechtel Engineering is currently studying this problem to determine reportability and the technical justification for corrective action. New fire damper blades are being installed for additional testing. The test results are scheduled to be complete by September 24, 1984.

In addition, The Waldinger Corporation has been requested to provide Bechtel Engineering with information regarding the cause, resolution, and corrective action regarding this deficiency. Response to this request is forecast for September 26, 1984.

III. Projected Completion of Corrective Action
and Submittal of the Final Report

The complete evaluation and final report are forecast to be completed by October 31, 1984.

Mr. T. W. Bishop
DER 84-56
Page Two

cc: Richard DeYoung, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

T. G. Woods, Jr.
D. B. Karner
W. E. Ide
D. B. Fasnacht
A. C. Rogers
L. A. Souza
D. E. Fowler
T. D. Shriver
C. N. Russo
J. Vorees
J. R. Bynum
J. M. Allen
J. A. Brand
A. C. Gehr
W. J. Stubblefield
W. G. Bingham
R. L. Patterson
R. W. Welcher
H. D. Foster
D. R. Hawkinson
L. E. Vorderbrueggen
R. P. Zimmerman
S. R. Frost
L. Clyde
M. Woods
T. J. Bloom

Records Center
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, GA 30339

OUTSTANDING ITEM I -- LICENSEE REPORT

Docket Number

-	-	-	-	-	-
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Palo Verde Unit 4

Facility Name

Yes

No

☒
☐

Was the report submitted on time?

Item Number*

8	4	-	5	5	-	2	
---	---	---	---	---	---	---	--

OI Type

Followup Resp.

☐
☐
☐
☐

Did it contain all information required by 10 CFR 50.73?

Event Date

0	8	-	2	2	-	8	4
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M M D D Y Y

Report Date

0	9	-	2	2	-	8	4
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M M D D Y Y

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Is followup action necessary?

Descriptive Title

H	O	L	L	E	R		C	O	2		S	Y	S	T	E	M	F	I	R	E	D	A	M	A	G	E	R	S	
D	O		N	O	T		S	U	L	L	Y	C	L	O	S	E	U	N	D	E	R	N	O	R	M	A	L		
O	P	E	R	A	T	I	N	G		F	L	O	W																

Comments:

This report was reviewed in accordance with Region V Instruction No. 0402 and IE Inspection Procedure No. 90712. Required actions, if any, have been initiated.

D. Hollenbach
Project or Cognizant Inspector

DPN-14 for LM
Cognizant Section Chief
8/27/84

* For numbered licensee reports enter 4-digit report number followed by report category and revision number.

Report categories are:

- C - 10 CFR 50.55(e) Report
- L - Licensee Event Report (LER)
- P - Part 21 Report
- E - Environmental Occurrence
- X - Special Report
- Y - Other

Example OI Number: 84-03-L1

For reports not numbered by licensee, enter event date or use OI number system controlled by Project Inspector

Followup Responsibility

- O - Operations Projects
- R - Operations Resident
- C - Construction Projects
- F - Construction Resident
- E - Engineering
- M - Radiological Safety
- S - Safeguards/Physical Security
- P - Emergency Preparedness

OI Type Codes

- O - 10 CFR 50.55(e) Report
- R - LER or Other Licensee Report

ADP Entry by _____ on ____/____/____

RV Form 111 (4/84)

MORNING REPORT - REGION V

DATE: 8/27/84

FACILITY

NOTIFICATION

ITEM OR EVENT

REGIONAL ACTION

Telephone call
from Louisville
on 8/20/84.

During Halon and CO₂ System
Pre-Op Testing, Fire-Armies
were found to close inconvertible
or not fully under normal
sprinkling flow. The cause of
this is thought to be an
improperly sized spring.
The Halon system is a clean
the control room. The CO₂
system is used for Class I
switchgear and battery compartments.

The licensee will provide a written report in 30 days if the item is determined to be reportable. (DER 84-56)

DD

Follow. up
Re: 2512

MORNING REPORT - REGION V
DATE: AUGUST 28, 1984

REGIONAL ACTION

FOLLOWUP PER MC 2515

FACILITY

NOTIFICATION

ITEM OR EVENT

PACIFIC GAS AND
ELECTRIC COMPANY
DIABLO CANYON 1
DN 50-275

TELEPHONE CALL
FROM SENIOR
RESIDENT INSPECTOR

AT 4:11 A.M. ON AUGUST 26, 1984, WHILE PERFORMING SURVEILLANCE ACTIVITIES ON ONE OF THE TWO PLANT VENT NOBLE GAS RADIATION MONITORS THE AUTOMATIC TERMINATION OF RELEASE FUNCTION FOR THE CONTAINMENT PURGE SYSTEM WAS DETERMINED TO BE INOPERABLE. THIS FUNCTION WAS INOPERABLE BECAUSE THE OTHER PLANT VENT NOBLE GAS RADIATION MONITOR WAS CLEARED AND DEENERGIZED AT 6:00 P.M. ON AUGUST 23, 1984 IN ACCORDANCE WITH PROCEDURES AND THE ASSOCIATED CONTAINMENT PURGE SYSTEM ISOLATION SIGNAL WAS RESET. WITH THIS SIGNAL RESET, THE HIGH RADIATION SIGNAL FROM THE OTHER RADIATION MONITOR WOULD NOT CAUSE A CONTAINMENT PURGE

SYSTEM ISOLATION. A CONTAINMENT PURGE HAD BEEN UNDERWAY FROM 10:13 A.M. ON AUGUST 22, 1984 THROUGH 12:44 P.M. ON AUGUST 24, 1984, WHILE THE CONTAINMENT PURGE SYSTEM ISOLATION FUNCTION WAS INOPERABLE. THERE WAS NO RELEASE OF RADIOACTIVE EFFLUENTS VIA THIS PATHWAY. THE LICENSEE HAS MADE A PRESS RELEASE.

FOLLOWUP PER MC 2512

ARIZONA PUBLIC
SERVICE CO.
PVNGS 1
DN 50-528

TELEPHONE CALL
FROM LICENSEE
ON 8/22/84

DURING MALON AND CO2 SYSTEM PRE-OP TESTING, FIRE- DAMPERS WERE FOUND TO CLOSE INCONSISTENTLY OR NOT FULLY UNDER NORMAL OPERATING FLOW. THE CAUSE OF THIS IS THOUGHT TO BE AN IMPROPERLY SIZED SPRING. THE MALON SYSTEM IS USED IN THE CONTROL ROOM. THE CO2 SYSTEM IS USED FOR CLASS 1 SWITCHGEAR AND BATTERY ROOMS. THE LICENSEE WILL PROVIDE A WRITTEN REPORT IN 30 DAYS IF THE ITEM IS DETERMINED TO BE REPORTABLE. (DER 84-56)

FOLLOWUP PER 2512

ARIZONA PUBLIC
SERVICE CO.
PVNGS 1
DN 50-528

TELEPHONE CALL
FROM LICENSEE
ON 8/22/84

DURING PERFORMANCE OF PRE-OP PROCEDURE 91PE1RD01, VALVE RDAUY23 FAILED TO MEET ACCEPTANCE CRITERIA OF CLOSING IN 10 SECONDS. VALVE CLOSED IN 19 SECONDS. THE VALVE IS A CONTAINMENT ISOLATION VALVE IN THE RADWASTE DRAIN. THE LICENSEE WILL PROVIDE A WRITTEN REPORT IN 30 DAYS IF THE ITEM IS DETERMINED TO BE REPORTABLE. (DER 84-57)

FOLLOWUP PER 2512

ARIZONA PUBLIC
SERVICE CO.
PVNGS 2
DN 50-529

TELEPHONE CALL
FROM LICENSEE
ON 8/22/84

THE FIRE STOPS ABOVE THE MOTOR CONTROL CENTER (MCC) CUBICLES HAVE BEEN INSTALLED IN SUCH A MANNER THAT THEY DAMAGE CABLE INSULATION. THE CABLES ARE IN CONTACT WITH SHARP METAL EDGES OF THE FIRE STOPS. THE LICENSEE WILL PROVIDE A WRITTEN REPORT IN 30 DAYS IF THE ITEM IS DETERMINED TO BE REPORTABLE. (DER 84-59)

FOLLOWUP PER MC 2512

ARIZONA PUBLIC
SERVICE CO.
PVNGS 2
DN 50-529

TELEPHONE CALL
FROM LICENSEE
ON 8/27/84

A TOTAL OF 50 LIMITORQUE VALVE OPERATORS WERE INITIALLY LUBRICATED WITH SUN-50 EP TYPE LUBRICANT (LI-PB BASE). ALL 50 WERE SUBSEQUENTLY LUBRICATED AT THE JOB SITE WITH NEBULA EP-1 LUBRICANT (CA-COMPLEX BASE). THE TWO BASES CAN NOT BE MIXED THEREFORE THE ABILITY OF THE VALVES TO OPERATE IS INDETERMINANT. IN ADDITION, SUN-50 EP LUBRICANT IS NOT QUALIFIED FOR USE INSIDE CONTAINMENT. TEN OF THE 50 VALVES ARE LOCATED INSIDE CONTAINMENT. THE LICENSEE WILL PROVIDE A WRITTEN REPORT IN 30 DAYS IF

SOUTHERN CALIFORNIA TELEPHONE CALL
EDISON COMPANY FROM SENIOR
80NGS 2 RESIDENT INSPECTOR
DN 50-361 DN 8/27/84

THE UNIT EXPERIENCED A REACTOR TRIP FROM APPROXIMATELY FOLLOWUP PER MC 2515
10 PERCENT POWER ON AUGUST 26, 1984 AT 5:16 PDT FROM A
CORE PROTECTION ~~CALCULATION~~ (CPC) AUXILIARY TRIP
(AXIAL SHAPE INDEX TRIP). THE UNIT HAD PREVIOUSLY BEEN ~~LOAD CENTER~~
OPERATING AT 100 PERCENT POWER WHEN A ~~LOCAL CENT~~ PROBLEM
CAUSED LOSS OF A FEED WATER PUMP OIL PUMP AT 5:20 PDT FORCING A

REDUCTION TO 50 PERCENT POWER. CONDENSER VACUUM PROBLEMS
CAUSED A TURBINE TRIP AT 5:25 PDT AFTER WHICH THE CPC
AUXILIARY TRIP OCCURRED. THE AUXILIARY TRIP IS NOT A
TECHNICAL SPECIFICATION REQUIREMENT AT LOW POWER LEVELS
AND THE LICENSEE IS PURSUING ELIMINATION OF THE TRIP BELOW
20 PERCENT POWER. RESIDENT INSPECTORS ARE FOLLOWING THE
POST TRIP REVIEW.

Post

MORNING REPORT - REGION V
DATE: AUGUST 28, 1984

FACILITY	NOTIFICATION	ITEM OR EVENT	REGIONAL ACTION
PACIFIC GAS AND ELECTRIC COMPANY DIABLO CANYON 1 DN 50-275	TELEPHONE CALL FROM SENIOR RESIDENT INSPECTOR	AT 4:11 A.M. ON AUGUST 26, 1984, WHILE PERFORMING SURVEILLANCE ACTIVITIES ON ONE OF THE TWO PLANT VENT NOBLE GAS RADIATION MONITORS THE AUTOMATIC TERMINATION OF RELEASE FUNCTION FOR THE CONTAINMENT PURGE SYSTEM WAS DETERMINED TO BE INOPERABLE. THIS FUNCTION WAS INOPERABLE BECAUSE THE OTHER PLANT VENT NOBLE GAS RADIATION MONITOR WAS CLEARED AND DEENERGIZED AT 6:00 P.M. ON AUGUST 23, 1984 IN ACCORDANCE WITH PROCEDURES AND THE ASSOCIATED CONTAINMENT PURGE SYSTEM ISOLATION SIGNAL WAS RESET. WITH THIS SIGNAL RESET, THE HIGH RADIATION SIGNAL FROM THE OTHER RADIATION MONITOR WOULD NOT CAUSE A CONTAINMENT PURGE SYSTEM ISOLATION. A CONTAINMENT PURGE HAD BEEN UNDERWAY FROM 10:13 A.M. ON AUGUST 22, 1984 THROUGH 12:44 P.M. ON AUGUST 24, 1984, WHILE THE CONTAINMENT PURGE SYSTEM ISOLATION FUNCTION WAS INOPERABLE. THERE WAS NO RELEASE OF RADIOACTIVE EFFLUENTS VIA THIS PATHWAY. THE LICENSEE HAS MADE A PRESS RELEASE.	FOLLOWUP PER MC 2515
ARIZONA PUBLIC SERVICE CO. PVNGS 1 DN 50-528	TELEPHONE CALL FROM LICENSEE ON 8/22/84	DURING HALON AND CO2 SYSTEM PRE-OP TESTING, FIRE-DAMPERS WERE FOUND TO CLOSE INCONSISTENTLY OR NOT FULLY UNDER NORMAL OPERATING FLOW. THE CAUSE OF THIS IS THOUGHT TO BE AN IMPROPERLY SIZED SPRING. THE HALON SYSTEM IS USED IN THE CONTROL ROOM. THE CO2 SYSTEM IS USED FOR CLASS 1 SWITCHGEAR AND BATTERY ROOMS. THE LICENSEE WILL PROVIDE A WRITTEN REPORT IN 30 DAYS IF THE ITEM IS DETERMINED TO BE REPORTABLE. (DER 84-56)	FOLLOWUP PER MC 2512
ARIZONA PUBLIC SERVICE CO. PVNGS 1 DN 50-528	TELEPHONE CALL FROM LICENSEE ON 8/22/84	DURING PERFORMANCE OF PRE-OP PROCEDURE 91PEIRD01, VALVE RDAUV23 FAILED TO MEET ACCEPTANCE CRITERIA OF CLOSING IN 10 SECONDS - VALVE CLOSED IN 19 SECONDS - THE VALVE IS A CONTAINMENT ISOLATION VALVE IN THE RADWASTE DRAIN. THE LICENSEE WILL PROVIDE A WRITTEN REPORT IN 30 DAYS IF THE ITEM IS DETERMINED TO BE REPORTABLE. (DER 84-57)	FOLLOWUP PER 2512
ARIZONA PUBLIC SERVICE CO. PVNGS 2 DN 50-529	TELEPHONE CALL FROM LICENSEE ON 8/22/84	THE FIRE STOPS ABOVE THE MOTOR CONTROL CENTER (MCC) CURTICLES HAVE BEEN INSTALLED IN SUCH A MANNER THAT THEY DAMAGE CABLE INSULATION. THE CABLES ARE IN CONTACT WITH SHARP METAL EDGES OF THE FIRE STOPS. THE LICENSEE WILL PROVIDE A WRITTEN REPORT IN 30 DAYS IF THE ITEM IS DETERMINED TO BE REPORTABLE. (DER 84-59)	FOLLOWUP PER 2512
ARIZONA PUBLIC SERVICE CO. PVNGS 2 DN 50-529	TELEPHONE CALL FROM LICENSEE ON 8/27/84	A TOTAL OF 50 LIMITORQUE VALVE OPERATORS WERE INITIALLY LUBRICATED WITH SUN-50 EP TYPE LUBRICANT (LI-PB BASE). ALL 50 WERE SUBSEQUENTLY LUBRICATED AT THE JOB SITE WITH MERULA EP-1 LUBRICANT (CA-COMPLEX BASE). THE TWO BASES CAN NOT BE MIXED THEREFORE THE ABILITY OF THE VALVES TO OPERATE IS INDETERMINANT. IN ADDITION, SUN-50 EP LUBRICANT IS NOT QUALIFIED FOR USE INSIDE CONTAINMENT. TEN OF THE 50 VALVES ARE LOCATED INSIDE CONTAINMENT. THE LICENSEE WILL PROVIDE A WRITTEN REPORT IN 30 DAYS IF THE ITEM IS DETERMINED TO BE REPORTABLE. (DER 84-60)	FOLLOWUP PER MC 2512

SOUTHERN CALIFORNIA TELEPHONE CALL
EDISON COMPANY FROM SENIOR
80088 2 RESIDENT INSPECTOR
DN 50-361 ON 8/27/84

THE UNIT EXPERIENCED A TURBINE TRIP FROM APPROXIMATELY 10 PERCENT POWER ON AUGUST 26, 1984 AT 5:11A PDT FROM A CORE PROTECTION CALCULATOR (CPC) AUXILIARY TRIP (AXIAL SHAPE INDEX TRIP). THE UNIT HAD PREVIOUSLY BEEN OPERATING AT 100 PERCENT POWER WHEN A LOAD CENTER PROBLEM CAUSED LOSS OF A FEED WATER PUMP OIL PUMP AT 5:20 PDT FORCING A REDUCTION TO 50 PERCENT POWER. CONDENSER VACUUM PROBLEMS CAUSED A TURBINE TRIP AT 5:25 PDT AFTER WHICH THE CPC AUXILIARY TRIP OCCURRED. THE AUXILIARY TRIP IS NOT A TECHNICAL SPECIFICATION REQUIREMENT AT LOW POWER LEVELS AND THE LICENSEE IS PURSUING ELIMINATION OF THE TRIP BELOW 20 PERCENT POWER. RESIDENT INSPECTORS ARE FOLLOWING THE POST TRIP REVIEW.



Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

October 30, 1984
ANPP-31007-TDS/TRB

U. S. Nuclear Regulatory Commission
Region V
Creekside Oaks Office Park
1450 Maria Lane - Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. T. W. Bishop, Director
Division of Reactor Safety and Projects

Subject: ~~Time Extension For Report - DER 84-56~~
A 50.55(e) Potentially Reportable Deficiency Relating To Fire
Dampers Close Inconsistently.
File: 84-019-026; D.4.33.2

Reference: (A) Telephone conversation between J. Ball and T. Bradish on
August 22, 1984
(B) ANPP-30569, dated September 19, 1984 (Interim Report)

Dear Sir:

The NRC was notified of a potentially reportable deficiency in
Reference (A), and an Interim Report was transmitted by Reference (B).
At that time, it was estimated that a Final Report would be available by
October 31, 1984.

Due to the extensive investigation and evaluation required, it is now
expected that this information will be finalized by November 16, 1984, at
which time a complete report will be submitted.

There is no new information or change to the Interim Report at this time.

Very truly yours,

E. E. Van Brunt, Jr.
APS Vice President
Nuclear Production
ANPP Project Director

EEVB/TRB/nj

cc: See Page Two

8411160228

lp.

1.



Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

November 16, 1984 REGION V
ANPP-31162-TDS/TRB

U. S. Nuclear Regulatory Commission
Region V
1450 Maria Lane - Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. D. F. Kirsch

Subject: **Time Extension For Report - DER 84-56**
A 50.55(e) Potentially Reportable Deficiency Relating To Fire
Dampers Close Inconsistently.
File: 84-019-026; D.4.33.2

Reference: (A) Telephone conversation between J. Ball and T. Bradish on
August 22, 1984
(B) ANPP-30569, dated September 19, 1984 (Interim Report)
(C) ANPP-31067, dated October 30, 1984 (Time Extension)

Dear Sir:

The NRC was notified of a potentially reportable deficiency in
Reference (A), an Interim Report was transmitted by Reference (B), and a
Time Extension was requested by Reference (C). At that time, it was
estimated that a Final Report would be available by November 16, 1984.

Due to the extensive investigation and evaluation required, it is now
expected that this information will be finalized by November 29, 1984, at
which time a complete report will be submitted.

There is no new information or change to the Interim Report at this time.

Very truly yours,

E. E. Van Brunt, Jr.
APS Vice President
Nuclear Production
ANPP Project Director

EEVB/TRB/nj

cc: See Page Two

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lp.

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Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

November 28, 1984
ANPP-31253-TDS/TRB

U. S. Nuclear Regulatory Commission
Region V
1450 Maria Lane - Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. D. F. Kirsch, Acting Director
Division of Reactor Safety and Projects

Subject: ~~Time Extension For Report - DER 84-56~~

A 50.55(e) Potentially Reportable Deficiency Relating To Fire
Dampers Close Inconsistently.
File: 84-019-026; D.4.33.2

Reference: A) Telephone Conversation between J. Ball and T. Bradish on
August 22, 1984
B) ANPP-30569, dated September 19, 1984 (Interim Report)
C) ANPP-31007, dated October 30, 1984 (Time Extension)
D) ANPP-31162, dated November 16, 1984 (Time Extension)

Dear Sir:

The NRC was notified of a potentially reportable deficiency in
Reference (A), an Interim Report was transmitted by Reference (B),
and Time Extensions were requested by References (C) and (D). At that
time, it was estimated that a Final Report would be available by
November 29, 1984.

Due to the extensive investigation and evaluation required, it is now
expected that this information will be finalized by December 12, 1984, at
which time a complete report will be submitted.

There is no new information or change to the Interim Report at this time.

Very truly yours,

E. E. Van Brunt, Jr.

E. E. Van Brunt, Jr.
APS Vice President
Nuclear Production
ANPP Project Director

EEVB/TRB/nj

cc: See Page Two

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Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

December 8, 1984
ANPP-31384-TDS/TRB

U. S. Nuclear Regulatory Commission
Region V
1450 Maria Lane - Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. D. F. Kirsch, Acting Director
Division of Reactor Safety and Projects

Subject: Final Report - DER 84-56
A 50.55(e) Reportable Condition Relating To Fire Dampers Close
Inconsistently.
File: 84-019-026; D.4.33.2

Reference: A) Telephone Conversation between J. Ball and T. Bradish on
August 22, 1984
B) ANPP-30569, dated September 19, 1984 (Interim Report)
C) ANPP-31007, dated October 30, 1984 (Time Extension)
D) ANPP-31162, dated November 16, 1984 (Time Extension)
E) ANPP-31253, dated November 28, 1984 (Time Extension)

Dear Sir:

Attached is our final written report of the Reportable Deficiency under
10CFR50.55(e) referenced above.

Very Truly Yours,

E.E. Van Brunt, Jr.
APS Vice President
Nuclear Production
ANPP Project Director

EEVB/TRB/nj
Attachment

cc: See Page Two

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10.

Mr. D. F. Kirsch
DER 84-56
Page Two

cc: Richard DeYoung, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

T. G. Woods, Jr.
D. B. Karner
W. E. Ide
D. B. Fasnacht
A. C. Rogers
L. A. Souza
D. E. Fowler
T. D. Shriver
C. N. Russo
B. S. Kaplan
J. R. Bynum
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A. C. Gehr
W. J. Stubblefield
W. G. Bingham
R. L. Patterson
R. W. Welcher
H. D. Foster
D. R. Hawkinson
R. P. Zimmerman
L. Clyde
M. Matt
T. J. Bloom
D. N. Stover
J. D. Houchen
J. E. Kirby
D. Canady

Records Center
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, GA 30339

FINAL REPORT - DER 84-56
DEFICIENCY EVALUATION 50.55(e)
ARIZONA PUBLIC SERVICE COMPANY (APS)
PVNGS UNITS 1, 2, 3

I. Description of Deficiency

In the presence of a fire, and under normal operating air flow conditions, all fire dampers must close in order to insure the integrity of fire rated walls in which fire dampers are located. The closure of dampers is accomplished via the melting of a fusible link on the damper in the presence of a fire. Some dampers close on the detection of smoke from the incipient stages of a fire after the fire control panel transmits a signal which melts an electrothermal link (ETL) on the damper.

SFR 1HJ-153 and NCRs SM-4579 and SM-4580 document the failure of various dampers to close fully under normal operating air flow conditions. All dampers closed fully under "no flow" conditions. These dampers are manufactured by Ruskin Manufacturing Company and supplied by The Waldinger Corporation (TWC).

Evaluation

The dampers that failed to close are Ruskin Model NIBD23. Though the damper sizes and duct connection shapes (round or rectangular) may differ, the prime difference between dampers is the installation position. Dampers mounted in the floor are defined as horizontal dampers, and those mounted in a wall are defined as vertical dampers. The primary difference in operation of the two types of dampers is that the vertical dampers are spring loaded and closure is gravity assisted, while the horizontal dampers do not have the gravity assist due to the installation position of the dampers.

A. Vertical Dampers

NCRs SM-4579 and SM-4580 specifically identified vertical dampers HJB-M08, M11, M15 and HJN-M102 as having failed to fully close during testing. All vertical dampers were later retested (in the presence of TWC and Ruskin representatives) and it was determined that in all cases, except for damper HJB-M11, the ETL conduits were interfering with the closing of the damper. The root cause of this condition appears to be in the conduit design of the ETLs. After the link melts, the conduit "holds up" the ETL so that the ETL interferes with the closing of the damper. For damper HJB-M11, it was determined that the negator spring was kinked and required replacement (Ref. Letter F-TWC-BCI-84-241, August 24, 1984).

B. Horizontal Dampers

Since the vertical dampers are mounted in the wall, gravity assists their closing. The closing of the horizontal dampers is not assisted in this way. The same negator springs are used in both types of dampers. This spring is sufficient to close the gravity assisted vertical dampers, but not the horizontal dampers. Further testing of the horizontal dampers in Ruskin's facility has shown that use of a stronger negator spring and a modified locking mechanism will cause dampers to close during design flow conditions. The results of these tests are documented in Ruskin Test Report, Bechtel Log no. 13-10407-MM598-3018. A complete list of affected horizontal dampers is supplied as Attachment 1.

The root cause of this condition is that the springs in these dampers were not designed to close in horizontal duct mounted installations under air flow conditions.

II. Analysis of Safety Implications

The failure of the fire dampers which are installed in ductwork to fully close when required will derate the fire rating of the fire rated wall or floor in which they are located. This may lead to a violation of separation criteria where two trains of a system are separated by a fire rated wall in which a damper is located. Therefore, this condition is evaluated as reportable under 10CFR50.55(e); since, if this condition were to remain uncorrected, it could pose a substantial safety hazard.

Ruskin has already reported this condition under 10CFR Part 21. Therefore, determination of 10CFR Part 21 reportability is not required.

III. Corrective Action

A. Vertical Dampers

Fire damper HJB-M11 has been reworked so that it now closes under design flow conditions. This has been accomplished by replacing the kinked negator spring (via Startup Work Authorization number 24939). This damper and all other vertical fire dampers will have their ETL conduits removed so that the dampers will close under design flow conditions. This work will be accomplished via Design Change Package (DCP) 10M, 2SM, 3CM-FP-131. Unit 1 will be completed prior to entry into Mode 6. Units 2 and 3 will be completed prior to issuance of an operating license.

B. Horizontal Dampers

All horizontal fire dampers will have new negator springs and modified locking mechanisms installed in order to insure that the dampers will close during design flow conditions. In addition, horizontal fire dampers with ETLs will also have their conduits removed. The changes will be accomplished in each unit under DCPs 10M, 2SM, 3CM-HA-040; HF-021; HJ-042; HR-007; HT-017. The scheduled completion dates are the same as those listed above.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V

1450 MARIA LANE, SUITE 210
WALNUT CREEK, CALIFORNIA 94596

MAR 22 1985

Docket Nos. 50-528, 50-529 and 50-530

Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona 85036

Attention: Mr. E. E. Van Brunt Jr.
Vice President, Nuclear Production

Gentlemen:

Subject: NRC Inspection of Palo Verde Units 1, 2, and 3.

This refers to the inspection conducted by Messrs. G. H. Hernandez and J. R. Ball of this office during the period December 1, 1984 - January 31, 1985, of activities authorized by NRC License Number NPF-34 and Construction Permit Numbers CPPR 142 and 143, and to the discussion of their findings with you and members of your staff at the conclusion of the inspection.

Based on the results of this inspection, it appears that one of your activities was not conducted in full compliance with NRC requirements, as set forth in the Notice of Violation, enclosed herewith as Appendix A. This violation concerns an apparent failure of the HVAC contractor to comply with welding requirements as specified by approved drawing documents. The apparent failure of the welds to comply with procedural and code requirements brings into question whether sufficient contractor management and oversight controls existed at the HVAC contractor during the period the components were fabricated. Please provide your response to the Notice of Violation, including any additional steps or corrective action that you have taken to assure that HVAC contractor welding inspectors were properly qualified, and to assure that other components fabricated during this period complied with design requirements.

Your response to this Notice is to be submitted in accordance with the provisions of 10 CFR 2.201 as stated in Appendix A, Notice of Violation.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

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MAR 22 1985

Arizona Public Service Company - 2 -

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

151
D. F. Kirsch, Acting Director
Division of Reactor Safety and
Projects

Enclosure:

- A. Appendix A, Notice of Violation
- B. Inspection Report Nos: 50-528/85-01
50-529/85-01
50-530/85-01

cc w/enclosure:

J. R. Bynum, APS
S. R. Frost, APS
T. D. Shriver, APS
W. E. Ide, APS
C. N. Russo, APS
J. Morrison
L. Bernabei, GAP
A. C. Gehr, Esq. Snell & Wilmer

bcc: RSB/Document Control Desk (RIDS)
Resident Inspector
Mr. Martin

RV *[Signature]*
GHernandez:dh
3/7/85

[Signature]
Ball
3/7/85

[Signature]
Miller
3/7/85

[Signature]
AChaffee
3/14/85

[Signature]
AJohnson
3/14/85

[Signature]
DKirsch
3/19/85

APPENDIX A
NOTICE OF VIOLATION

Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona, 85036

Docket Nos. 50-528 and 50-529
NRC License No. ~~77~~-34 and
Construction Permit No. 142

As a result of the inspection conducted on December 1, 1984 - January 31, 1985, and in accordance with NRC Enforcement Policy, 10 CFR Part 2, Appendix C, the following violation was identified:

10 CFR 50, Appendix B, Criterion V, as implemented by Section 17 of the FSAR, states in part that, "Activities affecting quality shall be prescribed by documented instructions, procedures or drawings... and shall be accomplished in accordance with these instructions, procedures or drawings."

CTI-Nuclear Drawing No. 10407-M721B-582-4, Section 11.1, Sketch No. 31254, Revision K, calls out (in Detail No. 5) full penetration welds on stiffener connections located on the Control Room Essential Air Handling Units, and, in Section No. AA, calls for full penetration welds on the plate to plate welds of the same units.

Contrary to the above, the stiffener connections on the Air Handling Units for Units Nos. 1 and 2, did not have full penetration welds, as required. Additionally, portions of the required full penetration plate-to-plate welds on Air Handling Unit No. 2-M-HJA-F04 (Unit No. 2) were not fully welded in some areas. The plate-to-plate welds on 2-M-HJA-F04 were not fully welded for a total of 6 inches on the top north side and 4 inches on the top south side of the unit.

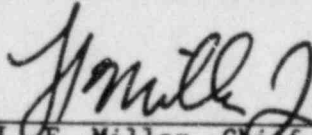
All welding identified above was inspected and accepted by Quality Control Inspectors of the Waldinger Corporation (TWC) for Unit No. 1, on October 12, 1982, and for Unit No. 2, on or before October 3, 1979.

This is a Severity Level IV Violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, Arizona Public Service Company, is hereby required to submit to this office within thirty days of the date of this Notice, a written statement of explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further items of noncompliance; and (3) the date when full compliance will be achieved. Consideration may be given to extending your response time for good cause shown.

MAR 22 1985

Dated


L.F. Miller, Chief

Reactor Projects Section No. 2

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U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos: 50-528/85-01, 50-529/85-01, 50-530/85-01

Docket Nos: 50-528, 50-529, 50-530

License No: NPF-34

Construction Permit Nos: CPPR-142 and 143

Licensee: Arizona Public Service Company
P. O. Box 21666
Phoenix, AZ. 85036

Facility Name: Palo Verde Nuclear Generating Station Units 1,2,3

Inspection Conducted: December 1, 1984 - January 31, 1985

Inspectors:

G. H. Hernandez, Senior Resident Inspector

3-14-85
Date Signed

J. R. Ball, Resident Inspector

3-14-85
Date Signed

Approved By:

L. F. Miller, Chief
Reactor Projects Section No. 2

3-14-85
Date Signed

Summary:

Inspection from December 1, 1984 - January 31, 1985
(Report Nos. 50-528/85-01, 50-529/85-01, and 50-530/85-01)

Areas Inspected: A routine, onsite inspection by the Construction Resident Inspectors of activities related to the following:

Unit One: Review and close out of licensee-issued Deficiency Evaluation Reports (DERs), NRC open items (Notice of Violation 50-528/84-38-04, Notice of Deviation 50-529/84-08-04, and Unresolved Item 50-529/84-08-03), NRC Information Notice 84-30, and an allegation related to Unit 1 Reactor Vessel studs.

Unit Two: Examination of the Reactor Vessel installation and concrete, and containment steel liner records.

Unit Three: Observation of work related to electrical cable pulling and installation.

Independent inspection was also performed on Units 1 and 2.

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The inspection involved 374 inspector hours on site by two NRC Resident Inspectors.

Results: In the areas inspected, one violation was identified. The licensee failed to assure that welding on HVAC units complied with drawing requirements (see paragraph No. 8).

DETAILS

1. Persons Contacted:

a. Arizona Public Service Company (APS)

*E. E. Van Brunt, Vice President, Nuclear Production
J. R. Bynum, Plant Manager
*W. E. Ide, Corporate Quality Assurance Manager --
*D. B. Fasnacht, Nuclear Construction Manager
W. F. Quinn, Licensing Manager
*C. N. Russo, Quality Assurance Audits/Monitoring Manager
R. J. Burgess, Field Engineering Supervisor
E. C. Sterling, Configuration Control Supervisor
R. J. Kimmel, Transition Engineer
R. L. Hamilton, Quality Monitoring Supervisor
*T. S. Bloom, Licensing Engineer
W. D. Roman, Lead Operations Engineer
W. L. Bichlmeir, Operations Engineer
A. T. Ramey, Quality System Supervisor
N. C. Hallas, Quality Engineer
*J. Y. Morita, Licensing Engineer
*R. J. Kimmel, Transition Representative
*W. W. Montefour, Quality Assurance Engineer

b. Bechtel Power Corporation (Bechtel)

*W. J. Stubblefield, Project Manager
S. M. Nickell, Project Superintendent
J. Black, Chief Resident Engineer
R. Randel, Startup/Operations Resident Engineer
D. Freeland, Pipe and Pipe Support Resident Engineer
*D. R. Hawkinson, Project Quality Assurance Manager
*H. D. Foster, Project Quality Control Engineer
*T. L. Horst, Project Field Engineer
R. H. Roehn, Lead Quality Assurance Engineer

*Denotes personnel attending the NRC Exit Management Meeting conducted on February 1, 1985.

The inspectors also talked with other licensee and contractor personnel during the course of the inspection.

2. Plant Status

a. Unit One:

On December 31, 1984, Unit No. 1 was granted an operating license. Fuel loading started on January 7, 1985, and completed on January 11, 1985. At the end of the inspection the Unit was in Mode 5 while preparations were made to enter Mode 4.

Unit Two:

Unit 2 has a scheduled fuel load date of December, 1985.

Construction completion of Unit 2 was estimated at 99.5% by the licensee.

Unit Three:

All major components and equipment have been installed. The major activity ongoing is the installation of electrical cable and instrumentation terminations, which is estimated at 80% complete.

Unit 3 has a scheduled fuel load date of March, 1987.

Construction completion of Unit 3 was estimated at 94.6% by the licensee.

3. Followup on NRC Notice of Violation - Unit 1

(Closed) Notice of Violation No. 50-528/84-38/04 "Failure to Comply With Training Requirements for Resident Engineers".

The inspector had previously identified that 30 out of 160 Bechtel project engineers did not have training records to substantiate compliance with training procedural requirements. The licensee's investigation determined that, based on interviews conducted with resident engineers, all but two of the engineers had previous experience on other Bechtel projects. All engineers had sufficient on-the-job familiarity with their work assignments for the inspector to conclude that the training had been completed, though not formally documented. Further, the licensee has revised engineering training procedures to ensure that any individual who has not completed the requisite training within 30 days is immediately identified to engineering management. The licensee attributed this violation to an omission in the job site Quality Assurance Schedule wherein resident engineering was not specifically identified in the audit schedule. The licensee has now modified the audit schedule to include resident engineering training, and other aspects of resident engineering which had been previously omitted.

Based on the licensee's corrective action as indicated above and the inspector's examination of the licensee's stated actions, this violation is closed.

4. Followup on NRC Notice of Deviation - Unit 2

(Closed) Deviation No. 50-529/84-08/04 "Failure to Qualify Sealant for Use as a Gasketing Material on Heating, Ventilating, and Air Conditioning (HVAC) Ducts."

The licensee's response to the Notice of Deviation was provided to the NRC by letter dated May 9, 1984. The licensee's response outlined the corrective measures taken to prevent recurrence of the discrepancy, and

the date when all action taken by the licensee was completed. Additionally, on May 10, 1984, the licensee issued a potential construction deficiency report [Deficiency Evaluation Report (DER) No. 84-37] in accordance with 10 CFR 50.55(e) on the use of unauthorized sealants which were not environmentally qualified.

Based on the inspector's examination of the licensee's corrective actions as related to DER No. 84-37 and the inspector's findings, as discussed in paragraph 7c of this report, this item is closed.

5. Followup on NRC Identified Unresolved Items - Unit 2

(Closed) Unresolved Item No. 50-529/84-08-03 "Use of Duct Sealant on a Gasketed Heating, Ventilating and Air Conditioning (HVAC) Duct Joints" Without Qualifying the Sealant for Harsh Environments

In NRC Inspection Report No. 50-529/84-08, the inspector identified the use of unauthorized sealants in HVAC ducts, including the metal to gasket seal. This NRC inspection report also contained a Notice of Deviation on the failure of the licensee to environmentally qualify sealants in accordance with FSAR commitments.

Subsequent to the issuance of the NRC inspection report, the licensee reported to the NRC a potential construction deficiency [Deficiency Evaluation Report (DER) No. 84-37] in accordance with the requirements of 10 CFR 50.55(e). This report addressed the use of unauthorized sealants which were not environmentally qualified.

Based on the inspector's examination of the licensee's corrective actions as related to DER No. 84-37, and the inspector's findings, as discussed in paragraph 7c of this report, this item is closed.

6. Licensee Action on NRC Information Notice 84-30 - Units 1, 2 and 3

(Closed) Information Notice No. 84-30, "Potential Deficiencies Related to the Construction of Safety-Related HVAC Units by the Bahnson Company"

Discussion with licensee personnel indicated they had responded to this NRC Information Notice by letter dated July 31, 1984, wherein, they indicated that six Bahnson units were received on site, that two HVAC units were currently installed in Unit 2, and four HVAC units were installed in Unit 3. Due to the potential welding deficiencies described in the Information Notice, the licensee instituted a special program to examine the six Bahnson units. The licensee's special program was in progress at the time of the inspection.

To assure that the other HVAC units installed in Units 1 and 2 did not have similar discrepancies, the inspector examined four HVAC units in Unit 1, and two HVAC units in Unit 2. These were manufactured by CTI-Nuclear (Bahnson Company was a subcontractor to CTI-Nuclear). The inspector found a number of welding discrepancies with these units. Subsequent investigation determined that the HVAC units were shipped in sections and then welded on site by the Waldringer Company (TWC). The

welding discrepancies identified with these units are discussed further in paragraph No. 8 of this report.

Based on the licensee's program for examining the Bahnson manufactured HVAC units, the inspector concluded that the licensee's actions were appropriate for addressing the deficiencies identified in the NRC Information Notice on Bahnson manufactured HVAC units.

This item is closed. - -

7. Licensee Action on 10 CFR 50.55(e) Construction Evaluation Reports (DERs) - Units 1, 2 and 3

The following 50.55(e) reports were reviewed by the inspector for reportability, and to determine the thoroughness of the licensee's corrective action.

a. (Closed) DER No. 84-13, "Heating, Ventilating and Air Conditioning (HVAC) Acceptance Criteria"

On March 13, 1984, the licensee reported a potential construction deficiency, in accordance with the requirements of 10 CFR 50.55(e), wherein a licensee examination of The Waldinger Corporation's (TWC) installed HVAC ducts determined that, due to insufficient detail on design drawings, and the incorrect interpretation of the drawings by TWC, a number of HVAC ducts' supports were found to not comply with the seismic acceptance criteria.

On December 12, 1984, the licensee submitted their final report on this deficiency, describing the safety implications and their corrective actions.

The inspector reviewed the documentation related to this identified discrepancy, and determined that the licensee had initiated a walkdown of all accessible safety-related, important to safety, and potentially hazardous condition duct supports (non-safety-related over safety-related duct supports). The non-accessible duct supports were defined as those supports that could not be inspected due to the covering of fire-proofing material. However, the licensee's inspection results concluded that, because of the small percentage (2.8%) of duct supports found to require rework, a high confidence existed that the non-inspected duct supports would perform as intended. Additionally, the type of rework performed tended to be very minor in nature for the rework supports.

Subsequent to this finding, the licensee revised all design drawings to ensure that sufficient details existed to prevent improper installation and misinterpretation of the drawings by the installers.

The inspector reviewed the documentation related to this deficiency, the revised drawings, and examined a number of the

reworked duct supports. The inspector found that the licensee's action appeared to properly address the safety concern, and sufficient action had been taken to prevent recurrence of the discrepancy. The licensee is following this item for Units 2 and 3, through Design Change Package Nos. 2SM-HF-014 and 3SM-HF-014, respectively.

This item is closed.

- b. (Closed) DER No. 84-31, "Unsealed Piping Penetrations in the Main Steam Support Structure (MSSS)".

On May 17, 1984, the licensee reported a potential construction deficiency, wherein, contrary to design requirements, 14 piping floor penetrations, in the Unit No. 1 Main Steam Support Structure (MSSS) were found to be unsealed.

On July 12, 1984, the licensee submitted their final report which described the deficiency, the safety implications, and their corrective actions.

The inspector reviewed the documentation related to this identified discrepancy. It indicated that unsealed floor penetrations at elevation 100 feet could expose the Auxiliary Feedwater (AFW) pumps to environmental conditions (flooding) for which the pumps had not been qualified, and therefore the operability of the pumps could not be assured.

At the end of the inspection, only four of the 14 penetrations had not been sealed. Work on these four penetrations had not been completed due to the unavailability of sealing material. The licensee has stated that work on these four penetrations will be completed prior to March 1, 1985. Additionally, the licensee has conducted a walkdown of other below grade penetrations to assure that a generic condition does not exist. No other penetrations were found to have a flooding potential for the AFW pumps. The licensee has issued Design Change Package Nos. 2SA-ZM-011 and 3CA-ZM-011 to insure that the required seals are installed in Unit Nos. 2 and 3.

Based on the licensee's actions with respect to the sealing of the ten floor penetrations, and the other corrective actions, as stated above, this item is closed. However, the inspector will follow the licensee's program for the sealing of the remaining four penetrations to assure compliance with the licensee's stated actions. (O/I 50-528/85-01-01)

This item is closed.

- c. (Open) DER No. 84-37, "Unqualified Heating, Ventilating and Air Conditioning (HVAC) Sealant"

On May 10, 1984, the licensee reported a potential construction deficiency, wherein unqualified sealants were found to have been

used by the HVAC contractor to reduce leakage in HVAC ducts. The licensee identified 21 different types of sealants which were available for use by the HVAC contractor, and over one-hundred locations in Units 1, 2, and 3 where unauthorized sealants were used.

The licensee submitted their final report on December 17, 1984, describing the deficiency, the safety implications, and their corrective actions.

The inspector reviewed the documentation related to this identified discrepancy, and determined that the licensee has submitted the 21 sealants to an environmental qualification program consisting of aging, elasticity, leakage tests, and radiation exposure analysis. A testing laboratory was in the process of qualifying all 21 sealants to a 40 year life. All sealants had been previously qualified to a 5 year life.

This item will remain open until the inspector can review the laboratory report on the qualification of the sealants for 40 years.

d. (Closed) DER No. 84-56, "Fire Dampers Fail to Close Consistently"

On May 10, 1984, the licensee reported a potential construction deficiency wherein a number of vertically and horizontally mounted fire dampers would not fully close in accordance with design requirements.

On December 8, 1984, the licensee submitted their final report, describing the deficiency, the safety implications and their corrective actions.

The inspector reviewed the documentation related to the identified discrepancy. It indicated that the two primary causes for the failures were the interference of the electrothermal link (ETL) conduit for horizontal and vertical dampers, and a weak "negator" spring for horizontal dampers. The electrothermal link is the fusible link in the damper which melts upon a signal from the Fire Control Panel. The licensee issued Design Change Packages to modify the dampers. These included removing the ETL conduits from horizontal and vertical dampers, and the addition of a stronger negator spring for the horizontal dampers. On December 20, 1984, the licensee tested the dampers, but one damper failed to close as required. At the end of the inspection, the licensee had corrected the problem with the damper (interference with the ETL conduit), and planned to retest the damper during the first week of February.

Based on the licensee's corrective actions as stated above, this item is closed.

e. (Closed) DER No. 84-93 "Missing Seismic Rails in Control Panel No. B05"

On November 9, 1984, the licensee reported a potential construction deficiency, wherein, contrary to design requirements, the CPC/CEAC operator modules on main control panel No. B05 were found to have no support rails installed.

On December 8, 1984, the licensee submitted their final report which described the deficiency, the safety implications and their corrective actions.

The inspector reviewed the documentation related to the identified discrepancy and determined that the panel vendor (Comsip-Customline) failed to incorporate the required support rails in panel No. B05 for Units 1, 2 and 3. All other panels had the required support rails. On December 19, 1984, the inspector examined panel No. B05 in Unit No. 1 and found that the support rails were installed, as stated by the licensee in their final report on this subject, dated December 8, 1984. The licensee has issued Design Change Package Nos. 2SJ-RM-800 and 3CJ-RM-800 to install the support rails in Unit Nos. 2 and 3.

This item is closed.

f. (Closed) DER No. 84-99, "Improper Mounting of Regenerative Heat Exchanger"

On November 30, 1984, the licensee reported a potential construction deficiency, wherein the upper support bracket bolt holes for the Regenerative Heat Exchanger had been modified such that the design thermal expansion of the heat exchanger had been precluded. This condition was determined by the licensee to possibly induce stresses beyond design allowables.

The licensee submitted their final report on December 14, 1984, which described the deficiency, the safety implications, and their corrective actions.

The inspector reviewed the documentation related to the identified discrepancy, and determined that on December 10, 1984, the mounting brackets had been reworked to comply with design requirements. On December 20, 1984, the inspector verified the licensee's corrective actions. The inspector determined that this condition was unique to the Unit 1 Regenerative Heat Exchanger upper mounting brackets.

Based on the licensee's actions as described above, this item is closed.

g. (Closed) DER No. 103, "Diesel Generator Building Roof Hatches".

On December 13, 1984, the licensee reported a potential construction deficiency, wherein Diesel Generator Building roof

hatches were determined to have the potential for lifting off and possibly damaging safety-related equipment during postulated high winds or tornados.

The licensee submitted their final report on December 14, 1984, describing the deficiency, the safety implications, and their corrective actions.

Discussions with licensee representatives determined that due to the heavy weight of the roof hatch covers (approximately 11,000 pounds each), the original engineering design omitted the consideration of the roof hatches lifting during high winds and tornado conditions. Subsequent calculations indicated the possibility exists that the roof hatches could lift during postulated conditions. The inspector reviewed the documentation related to the identified discrepancy, and determined that on December 20, 1984, the roof hatches were provided with restraints to prevent uplift during postulated situations. The inspector examined the welding, bolting, and the configuration of the restraints, and verified conformance with the design package. The licensee has issued Design Change Package Nos. 2CC-ZG-800 and 3CC-ZG-800 to install the restraints in Unit Nos. 2 and 3.

Based on the licensee's actions as stated above, this item is closed.

8. Independent Inspection - Units 1 and 2

- a. During the inspection related to Information Notice 84-30 (see paragraph No. 6), the inspector found that HVAC units installed in Unit Nos. 1 and 2 did not conform to welding requirements as specified by code and drawing requirements. The inspector found the HVAC units had been shipped in sections and welded together on site by the HVAC contractor. The HVAC contractor was the Waldinger Corporation (TWC).

On December 18, 1984, the inspector found that contrary to drawing No. 10407-M721B-582-4, Section 11.1, Sketch 31254, Revision K, and the AWS code, the Unit 1 Control Room Essential Air Handling Units Nos. 1-M-HJA-F04 and 1-M-HJB-F04 had 16 areas where partial penetration welds had been installed, instead of the required full penetration welds. The full penetration welds are required at stiffener to stiffener connection, the plate-to-plate connection and the intersection between these connections. Subsequent to this finding, the licensee issued an Engineering Evaluation Request (EER) No. 84-HJ-010, to address the identified discrepancies. On January 3, 1985, the licensee's engineering evaluation determined that based on calculation No. 13-CC-ZJ-086, the welds could be accepted-as-is, and the welds would perform their intended function.

On January 29, 1985, the inspector examined the Unit 2 Control Room Essential Air Handling Units Nos. 2-M-HJA-F04 and 2-M-HJB-F04. The inspector found that for Air Handling Unit No.

2-M-HJA-F04, the stiffener to stiffener connections and the plate-to-plate connections beneath the stiffener to stiffener connections did not have full penetration welds as required. The plate-to-plate welds were not fully welded for a total of six inches on the top north side of the unit and four inches on the top south side of the unit. Stiffener to stiffener connections on Air Handling Unit No. 2-M-HJB-F04 were also found not to have full penetration welds as required. These welds were inspected and accepted by Quality Control Inspectors of the Waldinger Corporation (TWC) for Unit 1 on October 12, 1982, and for Unit 2, on or before October 3, 1979.

The inspector did not examine the four Air Handling Units in Unit 3 and the other two Air Handling Units in Unit 2 because these units were manufactured by the Bahnsen Company and as stated in paragraph 6, the licensee had established a program to identify and correct any deficiencies in these units.

Although the licensee had been made aware of the inspector's findings with the Air Handling Units in Unit 1, the licensee failed to promptly ensure that similar discrepancies did not exist in the other units, apparently because of a problem in transmitting EER No. 84-HJ-010 to Bechtel. This problem is discussed further in item b.

The failure to assure that welding for safety-related Air Handling Units comply with code and drawing requirements is considered a violation of NRC requirements. (NRC Violation No. 50-528/50-529/85-01-02)

- b. Discussion with licensee personnel determined that, although EER No. 84-HJ-010 indicated similar discrepancies might exist in Unit Nos. 2 and 3, the EER was never transmitted to Bechtel for their resolution. The inspector determined that because the licensee's method of transmitting EERs to Bechtel lacked a positive acknowledgement system, the EER coordinator failed to ensure that Bechtel had received the EER and that Bechtel was working on assuring that no similar discrepancies existed in Units 2 and 3. The licensee stated that the EER procedure would be modified to include a positive acknowledgement system for EERs transmitted to other parties.

The inspector will examine changes to the EER procedure during a future inspection to assure that the licensee has complied with their stated intentions. (Follow up Item No. 50-528/85-01-03)

9. Follow-up to Allegation No. RV-85-A-005 - Unit 1

Characterization: The Unit No. 1 Reactor Vessel Head Closure Studs Were Alleged to be Either "Too Soft" or "Too Hard"

On January 22, 1985, John Staggs, a reporter for the Arizona Republic called the NRC resident inspector's office concerning information received from an anonymous source, that indicated that eight to twelve

of the Unit 1 Reactor Vessel closure head studs were either "too soft" or "too hard". The reporter stated that he had also called Arizona Public Service (APS) on this matter and APS was currently investigating this allegation.

Implied Safety Significance to Plant Design, Construction, or Operations:

The failure of the Reactor Vessel closure head studs could result in placing the Reactor in an unanalyzed accident condition.

Assessment of Safety Significance:

The inspector, in order to resolve this allegation examined all drawings, material certifications, NDE records, nonconformance reports, and the applicable code requirements related to the Reactor Vessel head closure studs. The inspector found that all fifty-four closure studs met the physical, chemical and hardness requirements, as required by the 1971 Edition of the ASME Code Section II and III, with addenda through Winter 1973.

Staff Position

The allegation was not substantiated and is closed.

10. Electrical Cable Pulling - Unit 3

The inspector observed the pulling of ten 600 volt control cables from the Unit No. 3 Auxiliary Building, to the Control Building Safety Equipment Status System Cabinet. The cable pull was observed by the inspector to ascertain compliance with Specification Nos. 13-EM-300 and 301, and WPP/QC1 No. 254.0 requirements. The inspector noted the cable card was properly filled out and quality control inspectors were present throughout the cable pulling process.

No violations of NRC requirements were identified.

11. Review of Quality Records - Unit 2

a. Structural Concrete

1) Areas Examined:

The inspector examined the quality records associated with 25 concrete placements for the Unit No. 2 containment building exterior walls and dome. This inspection included review of completed construction inspection plans (CIP's) for preplacement, placement and post placement of concrete to determine if the records reflected work accomplishment consistent with specifications and procedures. The inspector also examined material test records including daily aggregate test reports and certified mill test reports for cement supplied during the period in which the concrete was placed. Compression test results and the records of the analysis of

the standard deviation were reviewed to assure that the test coefficient of variation for the particular concrete mix used in these placements was within the code requirements. Additionally the audit records of Engineering Testing Laboratory, the organization that performed this testing, were reviewed.

2) Applicable Specifications and Procedures:

The following is a listing of specifications and Work Plan Procedures/Quality Control Procedures (WPP/QCI) governing the placement of concrete that were reviewed during the course of this inspection:

- ° 13 CM 101 - "Specification for Furnishing and Delivering Concrete."
- ° 13 CM 191 - "Specification for Testing of Concrete Materials."
- ° 13 CM 365 - "Installation Specification for Forming, lacing, Finishing and Curing Concrete."
- ° WPP/QCI 52.0 - "Concrete Preplacement"
- ° WPP/QCI 53.0 - "Concrete Placement"
- ° WPP/QCI 54.0 - "Concrete Post placement"

No violations of NRC requirements were identified.

b. Containment Structural Steel

1) Areas Examined:

The inspector examined the quality records associated with the installation of the Unit 2 containment cylindrical and dome liner plate. This inspection included review of completed construction inspection plans for the 1/4" SA-285 Grade A cylindrical and dome liner plate and the 1/2" SA-516 liner penetration plate. Material certifications for 21 of the 168 containment cylindrical liner plates and 5 of the 17 penetration plates were examined.

2) Applicable Specifications and Procedures:

The following is a listing of specifications and procedures governing the installation of containment cylindrical and dome liner plate which were reviewed during the course of this inspection.

- ° 13 CM 370 - "Containment Building Liner Plate System Installation Specification."

- ° WPP/QCI 61.0 - "Containment Cylindrical Liner Plate Installation."
- ° WPP/QCI 61.2 - "Containment Liner Plate Installation (Dome)."

3) Findings:

The inspector determined that the licensee had not prepared a summary sheet of inspections performed on the containment cylindrical liner plate, or inspections performed on containment liner penetration plates. The licensee was, however, able to produce supporting documentation which indicated that all required inspections had been performed. The licensee committed to prepare the summaries as required.

The inspector will review the completed summaries as a part of a future inspection (Follow up Item No. 50-529/85-01-04).

No violations of NRC requirements were identified.

12. Review of Quality Records - Unit 2:

Reactor Vessel Installation

The inspector reviewed the pertinent records related to the Unit No. 2 Reactor Vessel handling, protection, installation and inspection activities. The inspector assured that quality records indicated that the Reactor Vessel was installed in accordance with specially prepared construction inspection plans, that access was controlled to the reactor vessel, the required cleanliness was maintained and protective devices were installed at all vessel opening.

No violations of NRC requirements were identified.

13. Inspection Tour of Site:

Weekly, the inspector and licensee representatives toured the site to observe general housekeeping conditions, care and preservation of equipment, handling of components, tagging and identification of material.

No violations of NRC requirements were identified.

14. Management Meeting:

On February 1, 1985, the inspectors met with the licensee and Eechtel representatives identified in Paragraph No. 1. The scope of the inspection, the observations, and the findings of the inspectors were discussed. The licensee acknowledged the concerns, and the apparent violation of NRC requirements as identified in paragraph No. 8 of this report.

WASHINGTON PUBLIC
POWER SUPPLY
WNP-3
DN 50-508

TELEPHONE CALL FROM
LICENSEE ON 03/11/85

PART 21 REPORT: (TITUS PRODUCTS OF RICHARDSON, TEXAS
HAS INFORMED THE LICENSEE THAT MODEL NO. 272 GRILL
TENSION WIRES FOR DAMPERS IN HVAC SYSTEMS COME OUT OF
GUIDE CLIPS AND CAUSE THE DAMPER BLADES TO SHUT OR
REMAIN CLOSED. TITUS WILL REPAIR OR DEVELOP A
REPLACEMENT UNIT. PART 21 REPORT WILL BE SUBMITTED
BY THE LICENSEE WITHIN FIVE DAYS.

FOLLOWUP PER MC 2512
ONCE CONSTRUCTION
RESUMES. FORWARD
PART 21 REPORT TO HQ
FOR GENERIC
CONSIDERATION

KIRKPATRICK & LOCKHART

1500 OLIVER BUILDING
PITTSBURGH, PENNSYLVANIA 15222

TELEPHONE (412) 355-6500

TELEX 86-6495

TELECOPIER (412) 281-2299

ONE BOSTON PLACE
BOSTON, MA 02108
(617) 973-5400

1428 BRICKELL AVENUE
MIAMI, FL 33131
(305) 374-8112

1900 M STREET, N.W.
WASHINGTON, D.C. 20036
(202) 452-7000

WRITER'S DIRECT DIAL NUMBER

(412) 355-8608

March 15, 1985

**FREEDOM OF INFORMATION
ACT REQUEST**

Director
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

FOIA-85-181

rec'd 3/18/85

Gentlemen:

Pursuant to the Freedom of Information Act, 5 U.S.C. § 552, this is to request a copy of any response of the Nuclear Regulatory Commission to a letter sent to the NRC in or around early August 1984 regarding an alleged deficiency with certain model 272 grilles furnished by Titus Products for installation at the Clinton Nuclear Station. To assist you in locating the referenced letter and any NRC response thereto, the letter reporting the alleged deficiency is on the stationery of Ruskin Division of Philips Industrial Components, Inc. but is apparently signed by Steven Schneider of Titus Products Division. To further assist you, I am enclosing an undated version of the letter reporting the alleged deficiency.

In addition to any response to the referenced letter, I would also request any NRC documents specifically discussing the subject matter of the referenced letter. Please forward all such documents together with a statement of costs, which I agree to pay, to me at:

Jerry S. McDevitt, Esquire
Kirkpatrick & Lockhart
1500 Oliver Building
Pittsburgh, PA 15222

In the event you have any questions about the scope of this request, please call me at (412) 355-8608.

Very truly yours,

Jerry S. McDevitt (ll)

Jerry S. McDevitt

JSM/11
Enclosure

8506180071



RUSKIN

Division of Philips Industrial Components Inc

Box 129
Grandview, Missouri 64030
Phone 816 761 7476
TELEX 42 4192

Factories: Parsons and Great Bend, Kansas; Anaheim, California;
Minden, Louisiana; and Bronx, New York

Representatives in all Major Cities

Director, Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
Washington, D. C. 10555

Sir:

In accordance with requirements of 10 CFR Part 21, Titus Products, located at 990 Security Row, Richardson, Texas 75081, is herewith reporting that we have discovered a deficiency with products furnished by Titus Products for Nuclear Power Plant application.

On March 2, 1984, it was determined that the tension wires on Titus Grille (Model 272) would not remain in place when deflection blades were closed. The grilles were galvanized material supplied to The Waldinger Corporation for installation in the containment building at Palo Verde Nuclear Generating Station.

Since Palo Verde was the only jobsite for which galvanized grilles were supplied, Titus notified The Waldinger Corporation of this deficiency, which to the best of our knowledge was reported to the client.

Subsequent to the above notification, a jobsite review was conducted which resulted in the discovery of additional deficiencies. It was determined during this jobsite visit that the tension wire problem was also apparent on aluminum grilles, thus constituting a total review of all products furnished for other nuclear sites.

Further review showed that Model 272 grilles were supplied for two additional jobsites. Attachment I identifies the affected jobsites by location.

We are currently testing these products to provide an acceptable fix for retention of tension wires. Upon determination of method of rework, Titus will schedule personnel to complete this activity.

In closing, please find enclosed a copy of the letter describing the situation contained in this letter, which will be sent to each affected site.

If further questions should arise, please contact us at once.

CONTROL DAMPERS • FIRE DAMPERS • BACKDRAFT DAMPERS • LOUVERS

EXHAUST DIVISION • LAU DIVISION • MALTA DIVISION • MANUFACTURED HOUSING RECREATIONAL VEHICLE GROUP • TWIN RATE DIVISION • RUSKIN DIVISION

United States Nuclear Regulatory Commission

Page 2

Thank you for your cooperation.

Sincerely,

TITUS PRODUCTS DIVISION

Steven Schneider
President

SS:csH

Enclosures: Attachment I
Notification Form Letter

cc: File

NOTE: For further discussions, questions, or concerns on this matter, please contact:

Richard J. Yarges
(816) 761-7476

ATTACHMENT I

1. Washington Public Power Supply System
Unit III
P.O. Box 1223
Elma, Washington 98541

Attn: Wayne Nutt
Construction Supervisor

2. Palo Verde Nuclear Generating Station
Units I, II, and III
P.O. Box 215
Buckeye, Arizona 85326

Attn: Robert Strait
Project Engineer

3. Clinton Nuclear Station
The Zack Company
4600 12th Street
Chicago, Illinois 60650

Attn: Ralph Usinger
Project Engineer