



THE CONSERVATION COUNCIL OF NORTH CAROLINA

307 Granville Road, Chapel Hill, N.C. 27514
(919) 942-7935 or 942-1080 (24 hours)

DOCKETED
USNRC
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OFFICE OF SECURITY
& SERVICE
BRANCH
November 25, 1984

James L. Kelley
Glenn O. Bright
Dr. James H. Carpenter
Atomic Safety and Licensing Board
Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Shearon Harris Nuclear Power Plant (Docket 50-400 OL)

Dear Sirs:

As requested at the hearing in Raleigh on November 15, I am supplying an affidavit in support of the Conservation Council's Contention WB-2 which addressed the "safety significance" of the feedwater pump and system.

As you will notice, the affidavit has not been signed by Mr. Van Vo. This is a draft affidavit although it is my understanding from Mr. Van Vo's attorney, Mr. Guild, that Mr. Van Vo has read and approved it. He is sending me a signed and verified original. I unfortunately will not be available next week as I have a hearing down in Jacksonville, NC. I have asked Mr. Eddleman to send copies of the signed affidavit if it is sent to my office before I return.

Attached to the draft affidavit are five exhibits which show that the feedwater system in the turbine building was classed as "Safety Class 4/Seismic Class 1" at the time of the problem in August of 1982. Part of the system was latter "de-classified," although the feedwater piping itself has apparently not been. The affidavit and exhibits supply adequate basis for the contention.

Thank you for allowing us the opportunity to submit this affidavit in support of our contention.

Sincerely,

John Runkle
General Counsel

Enc.
cc. Service List
Robert Guild, Attorney for Chan Van Vo

8411280200 841125
PDR ADOCK 05000400
G PDR

DS03

CERTIFICATE OF SERVICE

I hereby certify that copies of the Conservation Council's Affidavit of Chan Van Vo and Exhibits were served upon the following by deposit in the U. S. Mail, postage prepaid, or by hand delivery.

James L. Kelley
Atomic Safety and Licensing Board
US Nuclear Regulatory Commission
Washington, D.C. 20555

Robert Cruber
Public Staff, Utilities Commission
PO Box 991
Raleigh, NC 27602

Glenn O. Blight
same address

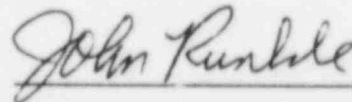
Dr. Linda Little
Governor's Waste Management Board
325 N. Salisbury St., Room 513
Raleigh, NC 27611

Dr. James H. Carpenter
same address

Thomas Baxter
Shaw, Pittman, Potts & Trowbridge
1800 M Street, N.W.
Washington, D.C. 20036

Docketing and Service (3 cc.)
Office of the Secretary
US Nuclear Regulatory Commission
Washington, D.C. 20555

Charles A. Barth
Office of the Executive Legal Director
US Nuclear Regulatory Commission
Washington, D.C. 20555



Daniel F. Read
PO Box 2151
Raleigh, NC 27602

John Runkle
Conservation Council of NC
307 Granville Road
Chapel Hill, NC 27514

M. Travis Payne
PO Box 12643
Raleigh, NC 27605

This is the ²⁵th day of November,
1984.

Dr. Richard D. Wilson
729 Hunter Street
Apex, NC 27502

Wells Eddleman
718-A Iredell Street
Durham, NC 27705

Bradley W. Jones
US NRC--Region II
101 Marietta Street
Atlanta, GA 30303

Richard E. Jones
Vice President--CP&L
PO Box 1551
Raleigh, NC 27602

A F F I D A V I T

My name is Chan Van Vo. I am also known as Van Vo Davis. I am giving this statement to Robert Guild, Attorney-at-Law, of Charleston, South Carolina, who has identified himself to me as a representative of the Government Accountability Project. I have been asked to provide further information to the Atomic Safety and Licensing Board of the Nuclear Regulatory Commission about the significance of the improper cold pulling and misalignment of the Steam Generator Feed Water Pump; and CP&L's mishandling of my efforts to identify and properly correct this nonconformance.

2. I repeat my professional opinion expressed in my October 6, 1984, Affidavit that the effective function of these pumps, valves and piping are nuclear safety significant. At the time I attempted to document the deficient fit-up of the Feed Water piping and the resultant stress-induced misalignment of the pump in August 1982 -- and during the entire course of construction of the Harris Plant until then-- the Feed Water system, its piping, pipesupports, valves and pumps, were classified by the Architects/ Engineers, Ebasco Services, Inc., by CP&L, and by their contractors as "Safety Class 4/ Seismic Class I," an acknowledgement of its nuclear safety significance. This classification applied to the Feed Water system in the Harris Turbine Building. Conformance to the Commission's 10 CFR Part 50, Appendix B, Quality Assurance Criteria such as detailed inspection and documentation were required for the Feed Water system.

3. After several years of serious problems in the design, fabrication, installation, and inspection of piping and associated components in the Turbine

Building at the Harris Plant, CP&L faced the prospect of performing extensive and costly rework including necessary inspections and documentation as required by the NRC's QA regulations. Instead of seeing that the job was done right-- by the same standards that even CP&L had committed to honor-- CP&L sought to circumvent quality standards and thereby "alleviate all concerns related to the additional inspection and documentation requirements for the supports in the Turbine Building," by attempting to "de-classify" the Feed Water and Main Steam systems inside the Turbine Building.

4. In my opinion such attempts by CP&L Engineers Ed Willett and Alex Fuller to "de-classify" these important systems simply represent efforts to cover-up their own shoddy work; as did their responses to my attempt to document and correct the Feed Water Pump misalignment.

5. Even the limited documentation available to me now supports my position. For Example, I attach as Exhibit 1 Work Directive No. 2836, dated 7/13/83, for Turbine Building Feed Water pipe support T-3-261-1-FW-H-11, which reflects this "de-classification" of the Feed Water hangers in the Turbine Building: ". . . this hanger is considered non-seismic and will require no CI or QC involvement or acceptance." This Work Directive cites generic Field Change Request FCR-H-1145, "Reclassification of MS & FW Supports in the Turbine Building." Revisions 0 and 1 reflect site approval by Ed Willett on 1/14/83 and Alex Fuller on 5/13/83, respectively. They are Exhibits 2 and 3, attached.

These generic FCRs rely on a November 12, 1982, Ebasco letter, EB-C-14332,

Exhibit 4, for authority to "reclassify the mainsteam and feedwater pipe supports and the main steam piping, in the turbine building. These items are to be non-seismic, in accordance with letter EB-C-14332." No mention is made of the Feed Water piping lines themselves in the FCRs, since the Ebasco letter expressly excepts the Feed Water piping from de-classification: "Please note that the generic FCR should also cover the feedwater supports in the Turbine Building. From the inspection and documentation aspects, these supports can be handled as B31.1, non-seismic, however, the lines will not be declassified to non-seismic." Thus, even long after my observation of the improper fit-up of the Feed Water pipe-to-pump connection, the Feed Water piping line remained Seismic Class I- requiring Quality Assurance program compliance. The Bergen- Patterson drawing for pipe-support FW-H-11, Exhibit 5, dated 5/27/83, continues to reflect "Safety Class 4/ Seismic Class I" for this hanger.

6. I continue to question the validity of CP&L's attempts to solve their problems of shoddy work at the Harris Plant through such "de-classification" of quality requirements. The nonconformance I observed was a violation of such quality requirements applicable at the time they were violated. My concerns should have been investigated and documented properly at the time by my management. They were not. Neither "de-classification" of defective work nor discarding employee complaints will make the Shearon Harris Nuclear Power Plant safe. I only hope that this NRC Licensing Board will.

SWORN to and subscribed before me

Chan Van Vo

this ____ day of November, 1984.

NOTARY PUBLIC

EXHIBIT 1

FORM NO. 80124
REV. 1
11/82

EXHIBITS
WP-110

WD- 2836

WORK DIRECTIVE

PIPE HANGER No. T-3-261-1-FW-H-11

REV. 1/8

PER FCR-H-1145, THIS HANGER IS CONSIDERED
NON-SEISMIC AND WILL REQUIRE NO CI OR QC
INVOLVEMENT OR ACCEPTANCE. <i>Approved 7/13/83</i>

COMPLETED / DATE
(HANGER FOREMAN)

N/A / DATE
ACKNOWLEDGED (C.I.)

N/A / DATE
ACKNOWLEDGED (C.C.)

ACKNOWLEDGED / DATE
(WELDING SUPV FOR NON-Q)

Type of Request:

Permanent Waiver to "use-as-is"

Field Change

See Recommended Action

Nonconformance No Yes

Report No. _____

Non-ASME

ASME Section III Division 1

ASME Section III Division 2

Q Non-Q

ORIGINAL

RFT # N/A

Identification of Area and Item: MAIN STEAM AND FEEDWATER PIPE SUPPORTS, AND MAIN STEAM PIPING, IN TURBINE BUILDING.

Conflict/Condition _____

Reference Documents or Attachment: LETTER EA-C-14332 (ATTACHED)
DRAWING 2165 G-107 S01 REV 4 AND S02 REV 4

THE MAIN STEAM AND FEEDWATER PIPE SUPPORTS IN THE TURBINE BUILDING WERE CLASSIFIED AS "SEISMIC I" FOR PURPOSES OF ANALYSIS, NOT IN USE OF SAFETY CLASSIFICATION OR REGULATORY COMMITMENT. THIS REQUIRED DOCUMENTATION AND TESTING WHICH ARE NOT NECESSARY FOR JOINT AND CONSTRUCTION OF THE PLANT.

VOID

RECORDED FEB 16 1983

DATE 1-1-83 BY ECR-H-1145 R-1

Recommended Action:

Please Investigate and Resolve

Please Resolve as Follows

ADD A NOTE TO DRAWING 2165 G-107 S01 REV 3 AND S02 REV 3 TO RECLASSIFY THE MAIN STEAM AND FEEDWATER PIPE SUPPORTS, AND THE MAIN STEAM PIPING, IN THE TURBINE BUILDING. THESE ITEMS ARE TO BE NON-SEISMIC, IN ACCORDANCE WITH LETTER EA-C-14332.

RECEIVED DOCUMENT CONTROL 2 APR 8 1983

Justification: THERE IS NO CODE OR REGULATORY REQUIREMENT THAT THESE ITEMS BE CLASSIFIED "SEISMIC I", AND THE CURRENT CLASSIFICATION CAUSES UN-NECESSARY INSPECTION AND DOCUMENTATION.

SHEARON HARRIS N.P.P.

Requested by: George O. White Date: 1/14/83

Discipline Engineer

Site Approval: E. E. Sledge Date: 1-14-83

Senior Resident Engineer

CATEGORY 2

FCR/PW H-1145

Design Organization Approval AE NSSS NPED Only Other

Telephone Resolution Yes No Design Organization Attachments Yes No
 Approved as Recommended Rejected Conditional Approval

This change requires the following Document(s) (Specification, Drawing, SAR, etc.)
to be changed DWG 2165 G 107 SOL AND SO2 R/3

Comments:
DWGS 59-107501 & 502 WILL BE REVISED FOR GB-C-14332, AS APPLICABLE

<u>Office Lead Proj. Eng.</u>	<u>2-22-83</u>	<u>Waltz</u>	<u>PE</u>	<u>2/27/83</u>	
Signature	Title	Date	Signature	Title	Date

CP&L Harris Plant Engineering Approval

HPES Attachments Yes No

Approved as Recommended Rejected Conditional Approval

<u>George Q. White</u>	<u>3/2/83</u>	<u>J. Shull</u>	<u>3/2/83</u>
Discipline Engineer	Date	MRPE or PPE	Date

Site Concurrence: Recommend Implementation Alternate Resolution Rejected
4/7/83
Senior Resident Engineer Date

Distribution:	(Copy)
(Original) Document Control	_____
(Copy)	_____
(Copy)	_____

Implementation Completed as Approved? Yes No
Comments:

Discipline Engineer Date

Final Distribution:	(Copy)
(Original) File in Doc. Control	_____
(Copy)	_____
(Copy)	_____

ORIGINAL

- Permanent Waiver
- Field Change
- Non-ASME
- ASME Sect. III Div. 1
- ASME Sect. III Div. 2

O Non-O
 Category I/A
 Nonconformance N/A
 Building TURBINE BUILDING
 Elevation ALL

RFTs N/A MS-1-3020.004 FW-1-3050.003
 Isometrics N/A
 Instruments N/A
 Lines N/A Valves N/A
 Cables N/A

List All Reference Documents (Drawings, Specs., FCR's, DCN's, Procedures, Etc.)
LETTER EB-C-14332 (ATTACHED)
DRAWING 2165G-107501 REV. 5 AND SO2 REV 4

Description
RECLASSIFICATION OF MS & FW SUPPORTS IN THE TURBINE BUILDING

Conflict / Condition

THE MAINSTREAM AND FEEDWATER PIPE SUPPORTS IN THE TURBINE BUILDING WERE CLASSIFIED AS "SEISMIC" FOR PURPOSES OF ANALYSIS, NOT BECAUSE OF SAFETY CLASSIFICATION OR REGULATORY COMMITMENT. THIS REQUIRES OCCUPATION AND TESTING WHICH IS NOT NECESSARY BUT WOULD BE MAINTAINED FOR THE LIFE OF THE PLANT.

Attachments: No Yes FCR LETTERS - PAGES 3 & 4 OF 4

Recommended Action:

- Please Investigate/Resolve
- Please Resolve As Follows

ADD A NOTE TO DRAWING 2165G-107501 REV. 5 AND SO2 REV. 4 TO RECLASSIFY THE MAINSTREAM AND FEEDWATER PIPE SUPPORTS, AND THE MAINSTREAM PIPING IN THE TURBINE BUILDING. THESE ITEMS ARE TO BE NON-SEISMIC IN ACCORDANCE WITH LETTER EB-C-14332 EXCEPT FOR THE FOLLOWING HANGERS: FW-H-144, 145, 200, 201, 203, 204, 205, 206, 207, 172, 86, & 87. MS-H-212, 213, 214, 215, 216, 217, 219, 230, 231, 232, 233, 234, 235, 237 & 345. FEEDWATER FRAMES C-1-309 & C-1-310 WILL ALSO REMAIN SEISMIC.

Justification CONDITION ABOVE SATISFIES CRITERIA OF SEISMIC - NONSEISMIC ON ISOMETRICS IT-261-FW-5 AND IT-286-MS-1.

JUN 1 1983

Requested By: AT CHRISCOE 5-13-83
 Discipline Engineer Date
 Site Approval: Chk Full on MPT 5-13-83
 Senior Resident Engineer Date

Uncontrolled Copy
 FOR INFORMATION ONLY

Approved
01 MC 3/23/83

FCR/PPW - H-1145 REV.1

Organization Approval AE NSSS NPED Only Other

Phone Resolution Yes No Design Organization Attachments Yes No

Approved as Recommended Rejected Conditional Approval

change requires the following Document(s) (Specification, Drawing, SAR, Etc.) to be changed:

2165-G-107501 & 2165-G-107502

Signature	Title	Date	Signature	Title	Date
CP&L Harris Plant Engineering Approval					
HPES Attachments <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Approved as Recommended <input type="checkbox"/> Rejected <input type="checkbox"/> Conditional Approval					
Reference Documents: EBASCO LETTER EDC-14332 STRESS 150' IT-2W-FW-S REV. 5 th and IT-286-MS-1 REV 6					

<u>Robert D. Harrington</u>	<u>5-19-83</u>	<u>90-111614</u>	<u>ENG JF NEVIL</u>	<u>5/26/83</u>
Discipline Engineer	Date	MHPE or PPE		Date

Concurrence: Recommend Implementation Rejected

77775 5/23/83
Senior Resident Engineer Date

Distribution:

(Original) Document Control

(Copy) DAVID TIMBERLAKE - WELDING

(Copy) WARD MEFLER - QC

(Copy) _____

(Copy) _____

Implementation Completed As Approved? Yes No

Comments:

_____	_____
Discipline Engineer	Date

Distribution:

(Original) File in Doc. Control

(Copy) _____

(Copy) _____

(Copy) _____

EBASCO SERVICES INCORPORATED



Two World Trade Center, New York, N.Y. 10048

NOV 12 1982

EB-C- 14332
File: 5Q-H-2
5-S-11

Mr L I Loflin, Manager
Engineering - Harris Plant
Carolina Power and Light Company
P O Box 101
New Hill, North Carolina 27562

Dear Mr Loflin:

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT
ANALYSIS OF MAIN STEAM LINES SMS2-144
THROUGH 150

Reference: CE-13476

We have reviewed your request for deletion of snubbers associated with the subject lines and wish to offer the following for your consideration.

The EB-B-241 correspondence provided a criteria for support loads which assure a satisfactory seismic design. The snubbers in question cannot be replaced with rigid restraints without thermally overstressing the pipe during plant normal operation.

It is noted that any snubbers located in the Turbine Building will be reviewed and deleted if the criteria for design of anchors at seismic/non-seismic interfaces are not violated.

Regarding the subject lines, portions of the lines inside the Turbine Building do not have to be seismically designed. As discussed with your Mr G White, the most efficient way to reflect this change is to have CP&L prepare a generic FCR which would request Ebasco to "de-classify" all MS lines/portions of lines inside the Turbine Building to B31.1, non-seismic lines. Due to the large scope of these lines (much broader than SMS2-143 through 150 as indicated in your letter) the disposition of this change through a line and valve list would be too extensive. In our opinion this generic FCR will alleviate all concerns related to the additional inspection and documentation requirements for the supports in the Turbine Building. The only exception to this generic approach are the major Main Steam lines from the interface anchor to the turbine stop valve (44" lines). The declassification of these lines will be handled through a formal revision to the line list and other design documents including the FSAR. This is highlighted in our reply to your CE 13502 letter.

Please note that the generic FCR should also cover the feedwater supports in the Turbine Building. From the inspection and documentation aspects, these supports can be handled as B31.1, non-seismic, however, the lines will not be declassified to non-seismic. This is due to the fact that the interface anchors were not designed for the seismic/non-seismic load criteria.

Please provide us with the aforementioned FCR as soon as possible.

RECORDED NOV 16 1982

ANALYSIS OF MAIN STEAM LINES 5MS2-144
THROUGH 150.

If you have any questions, please call us.

Very truly yours,

R. K. Matzelle

R K Matzelle
Project Manager

PF:amb

cc: L I Loflin
J J Sheppard
L H Martin
J L Willis
R M Parsons
Sheldon D Smith
G L Forehand
N J Chiangi

ITEM	QUAN.	PART NO.	SIZE	DESCRIPTION	WT.
1	2	CTP	T.S. 2x2x1/4 x 2-9 1/2 L4	(ASTM A500 GR. B)	142
2	2	CTP	T.S. 6x6x1/4 x 1-8 1/2 L4	(ASTM A500 GR. B)	63
3	2	CTP	T.S. 4x4x1/4 x 1-10 3/4 L4	(ASTM A500 GR. B)	63
4	1	CTP	T.S. 4x4x1/4 x 3-2 1/2 L4	(ASTM A500 GR. B)	53
5	2	CTP	T.S. 4x4x1/4 x 6-9 3/4 L4	(ASTM A500 GR. B)	166
6	2	CS	R 1/4 x 7 1/2 x 0-7 3/4 L4	(SA-36)	9
7	2	CS	R 1/4 x 8 3/4 x 0-5 3/4 L4	(SA-36)	5
8	2	2010	10" RIGID ROD STRUT	P-P 1-5 1/4"	51
9	2	2600	10-6" PIPE CLAMP		56
10	1	CTP	33 4x4x1/4 x 0-8 L4	(ASTM A500 GR. B)	8
11	2	CS	SEE SHT 5		
12	2	CS	SEE SHT 5	TOTAL WT	616

EXHIBIT 5
 7-18-83
 L-27
 TFL 10916

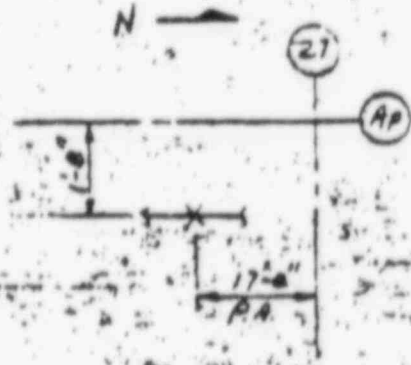
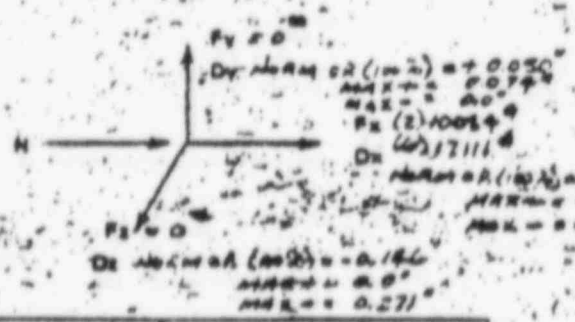
INTERFERENCE CHECK
 REF. B.P. COMPOSITE DWG C-1-315
 BY RP DATE 11-2-82
 DESIGN BASE ON COMPUTER ANALYSIS
 (red/spec.) PAINT BUNDLE & TAG TOTAL

SAFETY CLASS 4
SEISMIC CLASS I

- NOTES
 1. (PA) DIMENSION LOCATES PIPE ATTACH. IN DESIGN POSITION
 2. (STL) DIMENSION LOCATES CENTER LINE OF STEEL ATTACHMENT

	RR-FR	EQP	EQP	EQP	EQP
OPERATING WT. LD	-101	-101			
THERMAL T LD	-807	-807			
VIBRATION LD					
LOCA LD					
8 LOBE RESPONSE ±LD	5429				
WMC ±LD	333	333			
SSD ±LD	394	6828			
DPO ±LD	0				
DBE ±LD		9042			
DPO ±LD					
HYDRO LD					
HANGER WGT.					
FRICTION FORCE					

*DENOTES LOADS INDICATED ARE ONE HALF OF LISTED CONDITION.



STRESS ISO. #	IT-261-FW-3	REV. 5
STRESS CALC. #	72	REV. 10-18-82
STRESS PT. #	1342	

P.O. NO. NY 488285 UNIT NO. 1

BERGEN-PATERSON PIPESUPPORT CORP.
 FEED WATER

EBASCO SERVICES INC. (CAR-EM-30)
 CAROLINA PWR. & LT. CO. - SHEARON HARRIS

DATE 2-8-83

JOB NO. 2291 FAB NO. 1273 IFC NO. 1

MAKE & DWG. T-3-261-1-FW-H-11 SHEET 1 of 6 REV. 1/0

INVOICE CODE
 K-6103 N/A
 DESCRIPTION
 1. 19 1/2
 2. K-6103 N/A
 3. 19 1/2
 4. 19 1/2
 5. 19 1/2
 6. 19 1/2
 7. 19 1/2
 8. 19 1/2
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 11. 19 1/2
 12. 19 1/2