

NCS- B

456

TITLE 855 P2F Level Indication (ARKANSAS NUCLEAR ONE-1)

RELATED SPEC \_\_\_\_\_  
This spec has been reviewed by Jack Engineering Group and is applicable to  
SIC- Now The following  
is the status and/or resolution of this spec on other contracts.

REMARKS

B.mco responsible for applicability.  
11/20/73 - Per G.J. Gibbs this problem is  
N.A. to other contracts. Computers on  
other contracts have pt for Temp &  
Pressure. GA

SIC- \_\_\_\_\_

SIC- \_\_\_\_\_

**ACTION COMPLETE  
ON ALL CONTRACTS**

7910040414

TRANSMITTAL SLIP

FIELD OPERATIONS SITE PROBLEM REPORT

\*\*\* CLEARED \*\*\*

To H.A. BAKER For Information  
G.J. GIBBS

FILE: 1242  
Contract 620-0008

SPR 456

TITLE 855 PER LEVEL

INDICATION

C. C. Plunkett - Contract Admin.

Central Engineering Files

E. V. DeCarli - Quality Assurance

DATE 2/19/74

The attached, cleared SPR is submitted for your information.

TO: J. D. Phinney  
J. P. Kennedy  
R. J. McConnell  
D.L. ALLISON

Attached is one copy of Site Problem Report No. 456 which has been processed on Contract 620-0008. Your contract or contracts may have the potential for a similar problem. The Site Problem Report is being forwarded for your information and use to prevent problems from recurring on following contracts. A more complete file on the problem is available in the Nuclear Service area.

REMARKS: NO ACTION TAKEN ON ARE. ENG. SHOULD CONSIDER CORRECTION ON NEW CONTRACTS.

cc:

J. D. Phinney  
NUCLEAR SERVICE SUPPORT ENGINEER

**CLEARED**

**SITE PROBLEM REPORT**

BABCOCK & WILCOX-NPG

CUSTOMER Arkansas Power & Light CONTRACT NO. 0008 SPR NO 456 SPR REV NO - 0  
 VENDOR BWC Co. P.O. NO. 208212 COMP NO. 25 GROUP NO 01 SEQ NO 01  
 PRIMARY DOCUMENTS: SPEC NOS. \_\_\_\_\_ EQUIP CODE/LEVEL/DATE \_\_\_\_\_ PRIORITY \_\_\_\_\_  
 DWG NO. \_\_\_\_\_ GA LEVEL \_\_\_\_\_ GA SPEC NO. \_\_\_\_\_

SITE ENGINEER F. R. Faust EARLY START DATE \_\_\_\_\_ ACTUAL START DATE \_\_\_\_\_ REQ'D COMP DATE 2/29/73

TITLE (MAX. 20 SPACES) 855 PER LEVEL INDICATION

**DESCRIPTION OF PROBLEM**

See Attachment.

**STATUS-ACTION TO DATE INCLUDING PERSONS CONTACTED, COMMITMENTS MADE, ETC.**  
 Problem discussed with J. Albert with regards to 1808. However problem is in 855 software and G. Gibbs was contacted with regard to software problem. E. Davis contacted.

**FURTHER ACTION REQUIRED BY OTHER THAN SITE PERSONNEL**  
 B & W and BWC Co. to provide recommended modifications to 855 software in order to comply with customers request.

**RECOMMENDED ACTION** SEE ATTACHED LETTER H.A. BAKER TO T.D STABLES 11/14/73  
 Attached copy of SPR reads as follows: A TEMP. COMPENATED DIRECT READING RC PRESSURIZER LEVEL EXISTS AS POINT 1808 IN THE COMPUTER NOW. POINTS 0417, 0418, & 0419 ARE READ OUTS OF ΔP SENSORS. IF THE POINT DESCRIPTION (1808) IS MISLEADING, IT CAN BE CHANGED LATER BY ARKANSAS.

TITLE		APPROVAL SIGNATURE	DATE	DOCUMENTS REFLECTED	ACTION TAKEN
ORIGINATOR		<i>F. R. Faust</i>	9/1/73	<input type="checkbox"/> Drawings	
SITE CONSTR. REP.				<input type="checkbox"/> First Spent	
SITE OPER. MGR.				<input type="checkbox"/> Instr. Books	
NS SUPPORT ENGR.		<i>J. K. Stables</i>	9/1/73	<input type="checkbox"/> Operating Procedures	
		<i>T. D. Stables</i>	12/5/73	<input type="checkbox"/> Tech Specs	
PROJECT MANAGER		<i>F. R. Faust</i>	11/1/73	<input type="checkbox"/> PSAD/PSAR	
DISTRIBUTION				<input type="checkbox"/> Recommended Std. Change	
SITE OPS MANAGER				<input type="checkbox"/> Field Change Req. <input type="checkbox"/>	
PROJECT MANAGER				<input type="checkbox"/> Field Change No. _____	
N.S. SUPPORT ENGR.				Clear under per tel! 2/14/74 <i>J. K. Stables</i>	
COGNIZANT ENGR.					
CONTRACT ADMIN.					
NPG QA					
FILE 12M.2 _____					

OTHER CONTRACTS AFFECTED  
 This problem should be corrected for all future contracts.

RESPONSIBILITY ASSGN.  
 Category  Norm  C  D  O  L

AVIS Charge No. \_\_\_\_\_  
 Date Completed 2/14/74  
 By: *F. R. Faust*

DEVIATIONS  
 NONE  
 SEE REV. \_\_\_\_\_

SFR# 454

Description of Problem

Reference 1) B&W. Imp. #T00347780 sheet 1 of 6, RC Control Loop RC 1 and 2.

The reference dwgs. indicates that the three pressurizer level transmitters RL1-LT1, LT2 and LT3 each provide a pressurizer level input to the computer. The computer is presently programmed to read transmitter output which is a  $\Delta P$  signal (wet leg on the PWR level transmitters). Consequently, upon calling for pressurizer level, Point ID's 0417, 0418 and 0419, the computer output is that of level transmitter  $\Delta P$  (inches) not pressurizer water level! AP&L has informed B&W site personnel that this is extremely confusing to operators and that the present situation is totally unacceptable.

Recommended Action

Since uncompensated pressurizer level can be in great error, it was recommended by B&W site personnel and AP&L personnel that the computer output for pressurizer level inputs, PT. ID. NO. 0417, 0418, 0419 be temperature, pressure compensated pressurizer level.

Again, AP&L is extremely displeased with the present arrangement and expects to see a modification.

FFF/sp

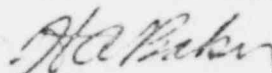
THE BABCOCK & WILCOX COMPANY  
POWER GENERATION GROUP

To	T. W. Stables - Nuclear Services	
From	H. A. Baker - Associate Project Manager - 2158	805 663 5
Cust.	Arkansas Power & Light Co.	File No. or Ref. NSS-S/8A25
Subj.	SPR 456	Date January 14, 1974

This letter is cover the customer and the subject only

We agree that the representation of pressurizer level transmitter inputs to computer in terms of uncompensated delta P is confusing. However, the operator has available an average compensated pressurizer level readout as Point 1808 on the computer. In addition he has available a readout of the compensated pressurizer level signal selected for control on RCI-IR.

The attached correspondence indicates that this is a situation of long standing and are included for your information. Since the cost of the suggested changes to make the operators life a little easier is very high, we would like to leave the status as is and intend to make no changes.

  
H. A. Baker

HAB/pmf  
CC w/att  
J. N. Eselin  
J. Beidmann

SITE PROBLEM REPORT

ABCOCK & WILCOX-NPG

CUSTOMER Arkansas Power & Light CONTRACT NO. 0008 SPR NO. 456 SPR REV NO - 0  
VENDOR EMCo. P.O. NO. 808212 COMP. NO. 25 GROUP NO. 01 SEQ. NO. 01

PRIMARY DOCUMENTS: SPEC NOS. \_\_\_\_\_ PRIORITY \_\_\_\_\_  
DWS NO. \_\_\_\_\_ EQUIP CODE/LEVEL/DATE \_\_\_\_\_ /  
QA LEVEL \_\_\_\_\_ QA SPEC NO. \_\_\_\_\_

SITE ENGINEER P. R. Palet EARLY START DATE \_\_\_\_\_ ACTUAL START DATE \_\_\_\_\_ REQ'D COMP. DATE 9/1/73

TITLE (MAX. 30 SPACES) 855 PZR LEVEL INDICATION

DESCRIPTION OF PROBLEM  
  
See Attachment.

STATUS-ACTION TO DATE INCLUDING PERSONS CONTACTED, COMMITMENTS MADE, ETC.  
Problem discussed with J. Albert with regards to MNL. However problem is in 855 software and G. Gibbs was contacted with regard to software problem. E. Iavis contacted.

FURTHER ACTION REQUIRED BY OTHER THAN SITE PERSONNEL  
B & W and EMCo. to provide recommended modifications to 855 software in order to comply with customers request.

RECOMMENDED ACTION  
*a. temp compensated direct reading RC pressure level point exist in the computer room. Points 0417, 0418, 0419 are read out of Δ P sensors. If the point description is misleading it can be changed later by Arkansas.*  
  
B. Bill

APPROVALS	TITLE	APPROVAL SIGNATURE	DATE	DOCUMENTS REQUESTED	REVISION NUMBER
	ORIGINATOR	<i>Frank R. Palet</i>	9/1/73	<input type="checkbox"/> Drawings	
	SITE CONSTR. REP.			<input type="checkbox"/> Proc. Specs	
	SITE OPER. MGR.	<i>J. K. ...</i>	9/1/73	<input type="checkbox"/> Instr. Books	
	MS SUPPORT ENGR.			<input type="checkbox"/> Operating Procedures	
				<input type="checkbox"/> Tech. Specs	
				<input type="checkbox"/> PSAB/PSAB	
				<input type="checkbox"/> Recommended Iss. Change	
				Field Change Req. <input type="checkbox"/>	
				Field Change No. _____	

DISTRIBUTION SITE OPS MANAGER PROJECT MANAGER N.S. SUPPORT ENGR. COGNIZANT ENGR. CONTRACT ADMIN. NPG QA FILE 124.2 _____	Cost Category <input type="checkbox"/> Harm <input type="checkbox"/> C <input type="checkbox"/> O <input type="checkbox"/> L RESPONSIBILITY ASSIGN. _____ OTHER CONTRACTS AFFECTED _____	Auth. Charge No. _____ Date Completed _____ By: _____ DEVIATIONS <input type="checkbox"/> NONE <input type="checkbox"/> SEE REV _____
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# Bailey Babcock & Wilcox

## INTER OFFICE MEMO

TO	J. J. Boehman	Office or Dept.	NPO	Symbol or Mail Station No.	3B7	
FROM	M. W. Boesch	Office or Dept.	Software Engineering	Symbol or Mail Station No.	2C8	
CITY	APL-Nuclear Unit #1	Engineer or Contractor		Draw. Project, Proposal, Job, or S.O. No.	1601L	
SUBJECT	Problem Report #303T-E10 (A172)				Date	November 26, 1973

Reference:

- (1) R. L. Healer to M. N. Zaharna dated 6/8/73 discussing the RC Pressurizer Level Temperature Compensation Calculation.
- (2) Spec Sheet representing S.O. 1601L125
- (3) CS-3-90 Computer Spec for NSS-8 dated January 4, 1971

In the revised submittal of PR #303T-E10, Bailey Meter CMO is requested to touch base with B&W to get proceedings in motion to change the subject computer points to temperature compensated pressurizer level. I believe what the Bailey PSS means is that the APL personnel are requesting that all three computer differential pressure inputs should have calculated results rather than being averaged into one calculated result.

In the CS-3-90 dated January 4, 1971, Bailey is requested to supply 3 computer inputs representing uncompensated level readings (Sec. 7.9, Page 8A.6). At a later date, Bailey was instructed to represent all uncompensated inputs as differential pressure inputs as opposed to uncompensated levels (Reference (1) above, Page 2, Item 1).

Also, in the CS-3-90 dated January 4, 1971, Bailey is requested to supply only one RC Pressurizer Level Computed Result (Sec. 7.9, Page 8A.27, Line 906). This Computed Result is currently an average of the three differential pressure inputs after temperature compensation. Thus, Bailey is according to spec and any change to existing program logic could only come as a result of B&W direction.

MWB:11

M. W. Boesch

Distribution:

MWBoesch (4)

MWB

**PROBLEM REPORT**

PROJECT SYSTEM FILE NO. 1581 3037 E10

DATE: 8/10/73

BY: S. A. H. CIVIL

TO: PROJECT MANAGER

FROM: SEA. NO. AT 21

CHD

FILE NO. 808212

PROJECT NO. E. CLAUS

DATE: 8/29/73

BY: 786

PROJECT NO. 22981

PROJECT NO. 786

PROJECT NO. 22981

PROJECT NO. 786

PROJECT NO. 22981

PROJECT NO. 786

**PROBLEM:**

To avoid a potential loss of accuracy Ref #s 0917-0919 have been changed from pressurizer level to pressurizer level sp.

REPAIR REQUIRED: CAP-TRPO - with new date safety-point information. Drawing was shown in attached sheets & forwarded immediately to writer; pressurizer system setpoint (LOW=160<sup>3</sup>WFO, HI=220<sup>3</sup>WFO) is differentiated; measure at design conditions.

DATE SOLUTION REQUESTED: 8/30/73 OR INFO ONLY

SIGNATURE: E. Claus

FOR FIELD USE

DAYS SERVICE: 0

SERVICE: \$ 0

EXPENSES: \$ 0

MATERIAL: \$ 0

S.P.O. NO. 57672

ALLOCATION

PRODUCT

PRODUCT APPLICATION

SYSTEM

SYSTEM APPLICATION

WARRANTY

OTHER

IN SERVICE

NO

YES ON \_\_\_\_\_ DAY

RM NO. \_\_\_\_\_

IN WARRANTY

ON RECEIPT

IN SERVICE

EST. TIME IN SERVICE

POSSIBLE CAUSE FOR FAILURE

FAULTY MATERIAL

FAULTY MANUFACTURING

FAULTY DESIGN

PERFORMANCE DEFICIENCY

FAULTY PACKAGING

COMPONENT FAILURE

WIRING

IMPROPER APPLICATION

OPERATING ENVIRONMENT

INSUFFICIENT INSULATION

REPAIR REQUIRED: CAP-TRPO - with new date safety-point information. Drawing was shown in attached sheets & forwarded immediately to writer; pressurizer system setpoint (LOW=160<sup>3</sup>WFO, HI=220<sup>3</sup>WFO) is differentiated; measure at design conditions.

DATE SOLUTION REQUESTED: 8/30/73 OR INFO ONLY

SIGNATURE: E. Claus

INVESTIGATOR: J. C. HED

ACTION

DATE

EXPECTED

REPAIR COST

FINAL DISPOSITION SIGNATURE

ENGINEERING

RELIABILITY

QC/QA

MFG. FOREMAN

APSL has requested B&W to change subject computer points to temp. compensated pressurizer level. Please touch base with B&W to get proceedings in motion. Done 10/3/73

DISPOSITION OF RM #

DATE RECEIVED

DATE RETURNED

CLASSIFICATION (RELIABILITY)

RUG & GC

RELIABILITY

DESIGN

STANDARDS

APPLICATION

PACKAGING

P.I.D.

OTHER

PRELIM ANSWER

FINAL SOLUTION

FOLLOW UP ON CORRECTIVE ACTION (IF FIELD OR OTHER ACTION REQUESTED)

RESULTS

RECEIVED

OCT 05 1973

QTY	NAME	PART NO.	COMMENTS

AWB 10-19-73

ACCOUNT ALLOCATION

COST CENTER

ASSIGNING INITIALS

APPROVAL INITIALS

ASSIGNED TO

DATE

APPROVAL

DATE

RM NO.

DATE RCVD.

REPAIR NO.

REPAIRED BY

DEPT.

DATE



**INTER-OFFICE MEMO**

TO	Office or Dept.	Symbol or Mail Station No.	
M. N. Zaharna	Software Engineering	A2-13	A2-13
FROM	Office or Dept.	Symbol or Mail Station No.	
R. L. Healer ✓	Application Software Engineering	A2-13	R.L. Healer
Customer's Name & Plant	Engineer or Contractor		
Toledo Edison Company Davis Besse Unit #1	B&W/Pechtel		1220N
SUBJECT (This memo to cover one subject only)		Date	
Reactor Coolant Pressurizer Level Temperature Compensation		6/8/73	

BACKGROUND

Although this memo specifically references the Toledo Edison Co. Job, B&W Job 1220N, the problem and solutions presented here actually are applicable to all current and previous Nuclear Steam Supply 855/50 or 855/25 computer applications. Specifically these jobs are as follows:

1. Metropolitan Edison Company, B&W Job No. 150L
2. Arkansas Power & Light Company, B&W Job No. 1601L
3. Florida Power Corporation, B&W Job No. 430L
4. Sacramento Municipal Utility District, B&W Job No. 1602L
5. Jersey Central Power & Light Company, B&W Job No. 1595L
6. Toledo Edison Company, B&W Job No. 1220N

There was considerable uncertainty on the exact requirements for the reactor coolant pressurizer level temperature compensation calculation with regard to necessary accuracy and relationships of the various associated process variables. As a result, various memos were interchanged between Bailey Meter Company and the Babcock & Wilcox Company on this subject. Please reference the attached copies of the following memos for the background on this information interchange as follows:

1. R. L. Healer to J. C. McCreary on February 9, 1973.
2. R. L. Healer/M. N. Zaharna to J. R. Schmidt on March 9, 1973.
3. J. E. Jones to J. C. McCreary on March 23, 1973.
4. R. K. Jahn to J. E. Jones on April 18, 1973.
5. J. C. McCreary to J. E. Jones on February 15, 1973.
6. E. S. Naufal to J. C. McCreary on January 2, 1973.

Despite this proliferation of correspondence many uncertainties still existed about this calculation. In an attempt to secure a final resolution of all outstanding questions on the subject, a meeting was set up between Bailey Meter Company and Babcock & Wilcox Company on May 17, 1973 with R. L. Healer representing EMCo. and B. J. Benedict representing B&W. R. K. Jahn also attended some portions of the meeting briefly.

#### MEETING OBJECTIVES

1. Resolve the proper representation of the uncompensated input values and the "bad" alarming associated with them.
2. Resolve the proper relationship of the reactor coolant pressurizer level water reference leg temperature variations with respect to the reactor coolant pressurizer temperature variations themselves.
3. Establish the necessary accuracy for this computation throughout its range.

#### RESULTS

1. It was agreed that a reasonable representation for the uncompensated input was in terms of differential pressure only. It was noted by Bailey Meter Company that representing inputs as uncompensated level versus representing them in terms of differential pressure made them no more or less likely to be reported as "bad" alarms. This discussion was in reference to a question that was raised in the March 23, 1973 memo sent by J. E. Jones of B&W to J. C. McCreary of Bailey Meter. It was, therefore, agreed EMCo. would represent all uncompensated inputs on the various jobs as differential pressure inputs as opposed to uncompensated levels. It was also agreed that 32-character descriptors associated with these inputs should have the abbreviation "DP" added to them. The result of this agreement was that the uncompensated inputs would range from either 400-0 or 320-0 inches nominally.
2. It was agreed that a sixth-order surface fit for this calculation was more desirable than a seventh-order surface fit for various reasons, amongst them the facts that the B&W in-house facility can not go beyond sixth-order and ripples are more likely to occur in a seventh-order surface fit than they are in a sixth-order surface fit. Keeping the desirability of a sixth-order surface fit in mind it was agreed that EMCo. would attempt to implement a sixth-order surface fit with the following accuracy requirements:

Plus or minus 1/2% of range in the normal operating reactor coolant pressurizer temperature range of 600 to 670 °F, and maximum allowable error of plus or minus 3/4% for the balance of the reactor coolant pressurizer temperature range.

It was agreed that EMCo. would attempt the implementation

advise B&W of the results.

3. There was considerable discussion about the exact relationship of the water reference leg temperature to the temperature in the pressurizer itself, and R. K. Jahn of EMCo. and J. D. Carlton of B&W participated in some of the discussion. The conclusions that were reached were that the variations in the water reference leg temperature had very little effect upon the final computed value of the temperature compensated reactor coolant pressurizer level, and, if a constant temperature were assumed for the water reference leg it could affect the output by only about 1/2 of 1%. Since, however, EMCo. has already implemented some work with a varying water reference leg temperature it was agreed that no significant work could be saved by changing to a constant water reference leg temperature. In addition to the preceding, if a constant water reference leg temperature were assumed, it would have to have a different value from job to job, and hence would also not allow any saving of work to EMCo. B&W also noted that the introduction of a 1/2 of 1% error into the calculations was close to the maximum allowable tolerance that they felt necessary for this computation. B&W did agree, however, that this relationship was basically an empirical one and it was very unlikely that the variation relationship would be different from job to job. Reviewing the specified variation as indicated on various previous and current jobs it was agreed between B&W and EMCo. that the variations specified for TECc undoubtedly presented the smoothest and most probable variation, and therefore B&W agreed to recommend to their engineering department that this particular relationship be used on all future jobs. It was further agreed that as long as the relationship specified for the various jobs was the same as Toledo's or SKUD's, or that used on the Metropolitan Edison Co. Job, that no attempts would be made to change or deviate from that specified. If however, any different relationship was specified it was agreed that EMCo. would advise B&W of that fact and a mutually agreeable relationship would be set up to minimize additional work from job to job.

(The last two items listed under results are also listed in a hand written, signed, and dated agreement which is attached to this memo.)

RLH:msj  
Attachments

*Richard L. Healer*  
Richard L. Healer

Distribution:

J. R. Schmalz A3-41 D. L. Pepp A3-41 J. C. McCreary A3-41 J. E. Purge  
R. K. Jahn A3-41 J. J. Bodmann A3-41 M. W. Boesch A2-13 E. J. Star  
J. G. Steinerunner A2-13 W. T. Gregor A2-13 P. A. Weintz A2-13  
R. L. Healer A2-13

BMW

For: Arkansas Power & Light  
Nuclear Sta.

CUST. REQ.

SPECIFICATION SHEET

3

Type BY3X40X-A (325.42 to 7.33" H<sub>2</sub>O)  
Level Transmitter

Ser.# 716169-71

Service: Pressurizer Level

X: Environmental Qualif. Constr. with  
Amplifier Pt.#6625480A1

B/#663274B

Dwgs. D6625492, D6625483, D6625484

Finish Plasite Per Spec. N2323-B on  
all Aluminum and Steel Parts

X=Clean Fer Spec. N2326-2A; Also Calibrate  
and Hydrostatic Test (at 2155 PSIG)  
to Spec. N2321-1D

Calibration for 60 PSI H<sub>2</sub> over 68F H<sub>2</sub>O  
and 68F Wet Leg with Conn. at Eleva-  
tions 0 and 327.375 In:

Level In.	Diff. "68F H <sub>2</sub> O	Output V DC
320	7.35	+10
240	86.85	+ 5
160	166.38	0
80	245.90	-5
0	325.42	-10

3(AW) Tags Per Spec. A16958A  
 620-0008 620-0008 620-0003  
 RC1-LT1 RC1-LT2 RC1-LI3  
 LT-1000 LT-1001 LT-1002

Certificate of Compliance Required with  
 Calibration Report to Include Pg. 4 of  
 Spec. N2321-1D in O/A Package with Item  
 Identification (Per Form E1810 to O/A  
 Attn: C.E. Miller, W1-24 Attached)

FINAL INSPECTION REQUIRED

MAN/INS/APP/INT

FOR EXPLANATION OF BAILEY NOMENCLATURE, REFER TO THE APPROPRIATE INSTRUCTION SECTIONS.



To avoid a potential loss of accuracy  
 Ref No. 0017-00419 have been changed  
 from pressure level 7, pressure  
 level 4p.  
 Action requests from NPO - (1) Please update  
 backup point information history as shown  
 on attached sheets. (2) Forward immediately  
 to writer, pressure alarm settings  
 (100-100 Hz, 11-220 Hz) in differential pressure  
 at design conditions.

DATE 8/30/73

REC'D 8/13  
 J. W. B. VILLI

SEARCHED INDEXED  
 SERIALIZED FILED  
 AUG 1 1973  
 FBI - MEMPHIS

NO  
 YES  
 PARTIAL

WARRANTY  
 RECEIPT  
 SERVICE

EST. TIME IN CHARGE

POSSIBLE CAUSE FOR PROBLEM

FAULTY MATERIAL  
 FAULTY MANUFACTURE  
 FAULTY DESIGN  
 OPERATOR'S MISTAKE  
 FAULTY PARTS AND COMPONENTS  
 WEAR AND TEAR  
 IMPROPER MAINTENANCE  
 OPERATING INSTRUCTIONS  
 DEFICIENT INSTRUCTIONS

WARRANTY ASSIGNED

ACTION  
 DATE  
 EXPECTED  
 REPAIR DATE

FINAL DISPOSITION SIGNATURE

ENGINEERING  
 RELIABILITY  
 QC QA  
 MFG. FOREMAN

DISPOSITION OF BIA #  
 DATE RECEIVED  
 DATE RETURNED

CLASSIFICATION (RELIABILITY)

MRG & QC  
 RELIABILITY  
 DESIGN  
 STANDARDS  
 APPLICATION  
 PACKAGING  
 FIELD  
 OTHER

ACCOUNT ALL NATION  
 COST CENTER  
 APPROVAL INITIALS  
 APPROVAL INITIALS

ASSIGNED TO

DATE

APPROVAL

DATE

DATE

DATE

DATE

THIS Problem Report was originally received with  
 a twisted action plan. At a later date, it  
 was re-evaluated with a new action plan (see attached  
 reference for new action). Item (1)  
 above will be documented formally.  
 Item (2) above could best be  
 answered by Stw. Please reference  
 the attached references for further  
 info concerning the new customer  
 request.

APPLY TO OTHER CONTRACTS?  
 YES  NO  
 IF YES LIST:  
 EPC \_\_\_\_\_  
 JPL \_\_\_\_\_  
 Alcatel \_\_\_\_\_  
 SWS \_\_\_\_\_  
 TECO \_\_\_\_\_

being taken care of in software Eng. per  
 individual contract needs.

APPROVAL SIGNATURE DATE  
 J. W. B. Villi 11-20-73

8/1/73  
 11/20/73  
 8/1/73  
 11/20/73

NO.	NAME	COMPANY	COMMENTS

ASSIGNED TO

DATE

APPROVAL

DATE

DATE

DATE

DATE



December 5, 1973

The Babcock & Wilcox Co.  
P.O. Box 1260  
Lynchburg, Virginia 24505

Attention: Mr. H.A. Baker

Subject: Arkansas Power & Light Company  
Arkansas Nuclear One  
B&W Order No.: 80821Z  
B&W Contract No.: NSS-8  
B&W Job No.: 1601L

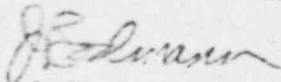
Reference: FPR 303TE10 (attached)  
Software Problem Letters dated 7/30/73 and 10/23/73  
J.J. Bodmann to H.A. Baker

Gentlemen:

Attached is FPR 303TE10 which requires B&W action to resolve.

We have received your letter of 11/12/73 on Plant Computer status and we are pleased by your response. FPR 303TE10 and the problems covered by the above referenced letters fall into the same category of outstanding software problems which your 11/12/73 letter addresses. We offer our full assistance to bring these matters to quick resolution.

Sincerely,  
BAILEY METER COMPANY



J.J. Bodmann, Project Manager  
Nuclear Project Office

JJB/jd1

11H w/o enc.: G.M. Olds  
11H w/o enc.: G.V. Carroll  
21H w/2 enc.: G.J. Quale

J.J. Bodmann	387
E. Clauss	Jobsite
M.N. Zaharna	208
LYN	
SF	
STL	

TRANSMITTAL SLIP

FIELD OPERATIONS SITE PROBLEM REPORT

To J.N. KAELIN For Action

CONTRACT 620-00 DB

SPR 456

TITLE 855 PZR

To H.A. BAKER For Information

LEVEL INDICATION

G.J. GIBBS

DATE 1/17/74

Date Reply to Be Submitted To  
Nuclear Service Support Engineer

Action Requested: Project Management has responded by saying that the cost of fix vs. end result does not make a change feasible.

J.D. Phinney  
RS McConnell  
cc: D.L. ALLISON  
JP Kennedy

J.D. Phinney  
Nuclear Service Support Engineer

C. C. Flunkett - Contract Admin.  
Central Engineering Files  
E. V. DeCarli - Quality Assurance

AN-HOUR LIMITS \_\_\_\_\_  
COST LIMITS \_\_\_\_\_  
CHARGE No. \_\_\_\_\_  
APPROVED: \_\_\_\_\_  
Project Manager