



PUBLIC SERVICE COMPANY OF COLORADO

P. O. BOX 840 · DENVER, COLORADO 80201

OSCAR R. LEE
VICE PRESIDENT

September 6, 1984
Fort St. Vrain
Unit No. 1
P-84342

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

SUBJECT: Defective Threaded Rod
Material - 10CFR21 Report

REFERENCE: Letter, O. R. Lee to
Director, 07/30/84,
P-84244

Dear Sir:

Attached please find corrected copies of a 10CFR21 Report originally transmitted to you via the referenced letter. In that letter and its attachments, it was indicated that the defective material had been purchased under Public Service Company of Colorado Purchase Orders N-4501 'A' and N-4501 'B'. In reality, the correct purchase orders were N-5401 'A' and N-5401 'B'. These mistakes in the purchase order identification were due to transposing of numbers.

For clarity, the text which follows has been revised to reference the correct purchase order numbers. Changes are indicated by revision lines.

"On June 18, 1984, Public Service Company of Colorado received material under PSC Purchase Order N-5401 'A' for use in reinforcement of safety related masonry block walls at its Fort St. Vrain Nuclear Generating Station. The material in question was 5/8" diameter, all threaded rod, purchased under specification ASTM A193, B16.

A visual examination (Attachment 1) of the material during receiving identified fifteen (15) of a total of sixty (60) rods as having longitudinal cracks on the surface which were deeper than the thread roots. Public Service Company's Quality Assurance Division preliminarily attributed these defects to forging laps in the original stock material.

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PDR ADDCK 05000267
S PDR

NOTE ORIGINAL TO REGION IV
IE 19
1/1

The Purchase Order required the supplier, Texas Bolt Company of Houston, Texas, to perform a visual examination of the thread area of final machined parts to identify discontinuities such as laps, seams, or cracks which are not acceptable per the referenced ASTM specification.

A Non-Conformance Report (NCR) 84-187 (Attachment 2) was written against the entire shipment of rods. The NCR disposition required that all defective material be returned to the vendor. The remaining forty-five (45) rods were to be examined by magnetic particle testing. One (1) additional rod was rejectable by this testing.

Texas Bolt Company was contacted by telephone on June 18, 1984, and notified of the non-conformance. The above sixteen (16) rods were returned and replaced by Texas Bolt Company on Purchase Order N-5401 'B'. For this shipment, in addition to the visual examination, Public Service Company required that the rods be magnetic particle tested by Texas Bolt Company prior to shipment. A magnetic particle test report was provided by Texas Bolt indicating that no defects were identified (Attachment 3). However, five (5) rods of this shipment also contained defects similar to the original order. The defective rods of the replacement shipment were dispositioned via NCR 84-205 and the entire shipment was rejected.

All of the threaded rods in both shipments were from the same heat lot, #8087367.

Fort St. Vrain has suspended procurement of quality related materials directly from Texas Bolt Company. All past Purchase Orders have been reviewed to determine if any other material from heat #8087367 had been previously received. No other material from this heat has been received or placed into stock.

The material was ordered for the specific purpose of a design modification to reinforce safety related masonry block walls at Fort St. Vrain. However, 5/8" diameter threaded rod purchased under specification ASTM A193, B16, is a standard component which could conceivably be used in a number of safety related applications (such as flange bolting).

Although we have determined no material from heat #8087367 has previously been received or used at Fort St. Vrain our 10CFR21 Evaluation Committee has determined that the subject would be of interest to the industry. Their evaluation, as well as the 10CFR21 Report, is enclosed as Attachment 4."

Where appropriate, the original attachments have also been corrected as indicated by the revision lines, and I have had my Evaluation Committee re-sign the documents.

If you have any further questions in this regard, please contact Mr. L. Singleton or Mr. C. Fuller at (303) 785-2223.

Very truly yours,

O. R. Lee / by Alan Wrenn
O. R. Lee

ORL/djc

cc: John T. Collins

ATTACHMENT 1

RECEIVING INSPECTION REPORTS

PURCHASE ORDERS N-5401 'A' AND N-5401 'B'



PUBLIC SERVICE COMPANY OF COLORADO
 FORT ST. VRAIN NUCLEAR GENERATING STATION
 RECEIVING INSPECTION REPORT

MAT'L REC'D DATE <i>6/18/84</i>	P.O. NO. <i>N-5401 - "A"</i>			
SUPPLIER <i>Texas Bolt Co.</i>	MFGR <i>same</i>			
MATERIAL <i>all thread rod 5/8" φ & nuts</i>				
INSPECTION POINT	A	R	NR	COMMENT #
1) PHYSICAL DAMAGE INCLUDING FIRE, EXCESSIVE EXPOSURE, ROUGH HANDLING, TIE DOWN FAILURE, ETC.	✓			
2) CORRECT IDENTIFICATION AND MARKING	✓			
3) ACCEPTABLE CLEANLINESS LEVEL	✓			
4) ADEQUATE PROTECTIVE COVERS, SEALS, PRESERVATIVES & COATINGS	✓			
5) CORRECT PART NUMBERS			✓	
6) CORRECT PHYSICAL PROPERTIES			✓	
7) ACCEPTABLE DIMENSIONS			✓	
8) ACCEPTABLE WORKMANSHIP		✓		①
9) ACCEPTABLE DOCUMENTATION	✓			
10) CORRECT CONFIGURATION			✓	
11) ACCEPTABLE TEST RESULTS		✓		①
12) SUPPLIER PERFORMANCE		✓		①
13) QUALIFIED SUPPLIER VERIFIED	✓			
14) PACKAGING, SHIPPING & HANDLING	✓			
15)				

COMMENTS: ① A visual examination was performed as required by P.O. Fyfe (15) all thread rods were rejected due to laps in material. Due to such a high rejection rate the remaining 45 rods will be sent to NOE Services for Magnetic Particle Coating. See NCR # 84-187

ACCEPT - PS/PO COMPLETE REJECT - RETURN TO SUPPLIER
 HOLD - SEE COMMENT # _____ HOLD TAG # _____
 HOLD - SEE NCR # *84-187* REJECT TAG # _____
 QA/QC INSPECTOR *J.M. Eleanis* (SIGNATURE) *6-18-84* (DATE)

P.O. CLEARED: Per disposition of NCR # 84-187 material was Magnetic Particle Inspected by NOE Services, see attached test report. Fifteen rejected lengths (Reject Log # 00168) all thread rod was returned to manufacture on P.C.M. # 132741. Replacement rods will be received on P.S. "B".
J.M. Eleanis (SIGNATURE) *6/19/84* (DATE)



PUBLIC SERVICE COMPANY OF COLORADO
 FORT ST. VRAIN NUCLEAR GENERATING STATION
 RECEIVING INSPECTION REPORT

MAT'L REC'D DATE <i>6/29/84</i>	P.O. NO. <i>N-5401 B'</i>
SUPPLIER <i>Jepco Bolt Co.</i>	MFGR. <i>same</i>
MATERIAL <i>5/8" φ all thread rod</i>	

INSPECTION POINT	A	R	NR	COMMENT #
1) PHYSICAL DAMAGE INCLUDING FIRE, EXCESSIVE EXPOSURE, ROUGH HANDLING, TIE DOWN FAILURE, ETC.	✓			
2) CORRECT IDENTIFICATION AND MARKING	✓			
3) ACCEPTABLE CLEANLINESS LEVEL	✓			
4) ADEQUATE PROTECTIVE COVERS, SEALS, PRESERVATIVES & COATINGS	✓			
5) CORRECT PART NUMBERS			✓	
6) CORRECT PHYSICAL PROPERTIES			✓	
7) ACCEPTABLE DIMENSIONS			✓	
8) ACCEPTABLE WORKMANSHIP			✓	①
9) ACCEPTABLE DOCUMENTATION			✓	
10) CORRECT CONFIGURATION			✓	
11) ACCEPTABLE TEST RESULTS			✓	①
12) SUPPLIER PERFORMANCE			✓	①
13) QUALIFIED SUPPLIER VERIFIED			✓	
14) PACKAGING, SHIPPING & HANDLING			✓	
15)				

COMMENTS: ① A visual examination per P.O. found 5 of 16 rods to have linear indications. These 5 will be rejected and the remaining 11 will need to be tested & pass accepted before use.

ACCEPT (PS) PO COMPLETE

HOLD - SEE COMMENT # _____

HOLD - SEE NCR # 84-205

REJECT - RETURN TO SUPPLIER

HOLD TAG # _____

REJECT TAG # 00171

QA/QC INSPECTOR _____ (SIGNATURE) _____ (DATE)

P.O. CLEARED: _____

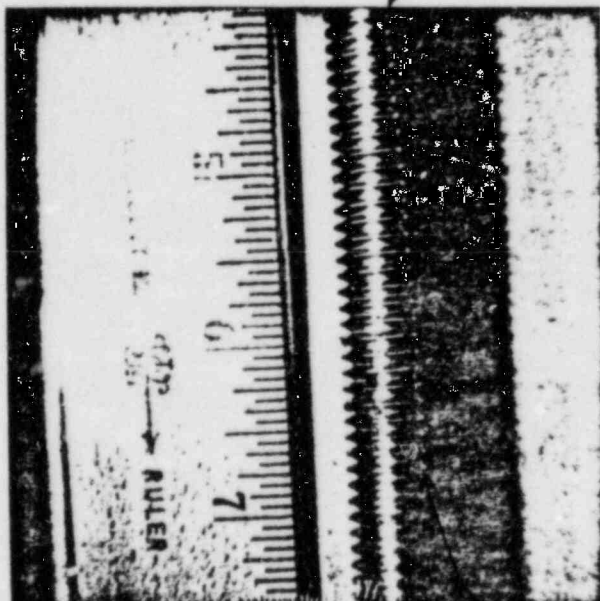
 _____ (SIGNATURE) _____ (DATE)



↑
DEFECT

7-20-84

← LINEAR DEFECT



5/8" X 10" ALL THREADS Rod 6
TEXAS BOLT CO.

7-20-84

ATTACHMENT 2

NON-CONFORMANCE REPORTS

- | #84-187 FOR PURCHASE ORDER N-5401 'A'
- | #84-205 FOR PURCHASE ORDER N-5401 'B'



PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

NONCONFORMANCE REPORT

NO. 84-187

DESCRIPTION			
ITEM NAME 5/8" ϕ ALL THREAD ROD	ITEM NO. 1791628	DATE RESPONSE DUE 7-6-84	
SYSTEM NO. N/A	EQUIPMENT NO. N/A	LOCATION RECEIVING WHSE.	REF. DOC. NO. N-5401
DESCRIPTION OF NONCONFORMANCE Visual examination of all thread rod was performed as required, by above P.O.. Fifteen of sixty rods were found to have linear indications (laps).			

WHAT CAUSED THE NONCONFORMANCE?

unknown

INITIATED BY <i>J.M. Edwards</i> (SIGNATURE)	6/18/84 (DATE)	QA REVIEW <i>Shugart</i> (SIGNATURE)	6-18-84 (DATE)
--	-------------------	--	-------------------

DISPOSITION					
DISPOSITION	<input checked="" type="checkbox"/> RET TO VENDOR	<input type="checkbox"/> SCRAP	<input type="checkbox"/> REWORK	<input type="checkbox"/> REPAIR	<input checked="" type="checkbox"/> USE AS IS

INSTRUCTIONS

THE 45 RODS WHICH HAD NO VISUALLY DETERMINED LAPS SHALL BE SENT OUT FOR TESTING BY MAGNETIC PARTICLE METHOD. THESE RODS ARE TO BE SEGREGATED BY THE TESTER, WITH THE ACCEPTANCE CRITERIA BEING NO PRESENCE OF LINEAR INDICATIONS. THE RODS THAT ARE REJECTED BY TEST RESULTS ARE TO BE RETURNED TO THE VENDOR FOR REPLACEMENT. ACCEPTABLE RODS SHALL BE USED UPON RECEIPT AND ACCEPTANCE OF RODS AND TEST REPORT BY PSC QA. TEST REPORT SHALL BE FILED WITH P.O.

ALL 15 RODS THAT WERE VISUALLY REJECTED ARE TO BE RETURNED TO VENDOR AND REPLACED BY SAME. *J.A. Turner* 6/18/84

AUTHORIZATION / APPROVALS		DISPOSITION IMPLEMENTATION	
PLANT MANAGEMENT <i>N/A</i> (SIGNATURE)	(DATE)	COMPLETED / RESPONSIBLE SUPERVISOR <i>N/A</i> (SIGNATURE)	(DATE)
NED: <i>Shugart</i> (SIGNATURE)	6/18/84 (DATE)	VERIFIED BY P.O. <i>J.M. Edwards</i> (SIGNATURE)	6/19/84 (DATE)
QA: <i>Shugart</i> (SIGNATURE)	6-18-84 (DATE)	PORC REC'D: <input type="checkbox"/> YES <input type="checkbox"/> NO NFSC REC'D: <input type="checkbox"/> YES <input type="checkbox"/> NO <i>Shugart</i> (SIGNATURE)	6-18-84 (DATE)



PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

NONCONFORMANCE REPORT

NO. 84-205

DESCRIPTION			
ITEM NAME <u>5/8" ϕ ALL THREAD ROD</u>	ITEM NO. <u>1791628</u>	DATE RESPONSE DUE <u>7-20-84</u>	
SYSTEM NO. <u>N/A</u>	EQUIPMENT NO. <u>N/A</u>	LOCATION <u>Receiving Whse.</u>	REF. DOC. NO. <u>N-5401 (B)</u>
DESCRIPTION OF NONCONFORMANCE <u>VISUAL EXAMINATION OF ALL THREAD ROD WAS PERFORMED AS REQUIRED BY ABOVE P.O. FIVE OF 16 RODS WERE FOUND TO HAVE LINEAR INDICATIONS (LAPS). (THESE 16 RODS ARE THE REPLACEMENTS FOR THOSE RODS REJECTED ON SHIPMENT 'A' OF 6-18-84 ON T 'S P.O., REF. NCR # 84-187.)</u>			
WHAT CAUSED THE NONCONFORMANCE? <u>UNKNOWN</u>			
INITIATED BY <u>M. E. ...</u> (SIGNATURE)		DATE <u>6/29/84</u> (DATE)	QA REVIEW <u>K. ...</u> (SIGNATURE)
			DATE <u>7/29/84</u> (DATE)
DISPOSITION			
DISPOSITION	<input checked="" type="checkbox"/> PET. TO VENDOR	<input type="checkbox"/> SCRAP	<input type="checkbox"/> REWORK
		<input type="checkbox"/> REPAIR	<input type="checkbox"/> USE AS IS
INSTRUCTIONS <u>ENGINEERING FEELS THAT THIS MATERIAL IS UNACCEPTABLE FOR ITS INTENDED USE. ALL 16 RODS SHALL BE RETURNED TO VENDOR. THIS ADDITIONAL MATERIAL IS NOT REQUIRED FOR CN 1280B, THE JOB WHICH THIS MATERIAL WAS ORDERED FOR.</u>			
AUTHORIZATION / APPROVALS		DISPOSITION IMPLEMENTATION	
PLANT MANAGEMENT:		COMPLETED / RESPONSIBLE SUPERVISOR:	
(SIGNATURE)	(DATE)	(SIGNATURE)	(DATE)
VED: <u>R. ...</u> (SIGNATURE)	<u>7-13-84</u> (DATE)	VERIFIED BY QC: <u>S. ...</u> (SIGNATURE)	(DATE)
CA: <u>J. ...</u> (SIGNATURE)	<u>7-16-84</u> (DATE)	PORC REQ'D: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO NFSC REQ'D: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <u>J. ...</u> (SIGNATURE)	<u>7/6-84</u> (DATE)

ATTACHMENT 3

EXAMINATION TEST REPORTS
SUPPLIED BY TEXAS BOLT COMPANY

FOR PUBLIC SERVICE CO. OF COLORADO

TEXAS BOLT COMPANY

REPORT No. _____

CUSTOMER P.O. No. N5401

P. O. BOX 1211

HOUSTON, TEXAS 77251-1211

SPECIFICATIONS:

10 CFR 21 APPLIES
ASTM A193 GRADE B16
ASTM A194 GRADE 4

TEXAS BOLT ORDER No. 177786

REPORT OF PHYSICAL AND CHEMICAL TESTS

6/6/84 jh

ITEM	Description	Material	Quantity	No. Pcs. Tested	Step Block Tensile	Ultimate Tensile PSI	Yield Strength	Elong %	RA. %	Hardness	Minimum Tempering Temperature
	ALL THREAD RODS 1. 5/8" x 10-12' RANDOM LENGTH	B16	600'	4		143,600	128,300	18.5	57.5		1200°F
	HEAVY HEX NUTS 5/8" ELEVATED TEMPERATURE TEST 24 HRS. AT 1100°F	4047	2,300	6	PROOF LOAD RESULTS 39,550 LBS. O. K. ---BHN---269					31/32 RC	1100°F
<p>"ALL MATERIAL IS OF U. S. ORIGIN AND MANUFACTURE."</p> <p>"ALL MATERIAL IS IN ACCORDANCE WITH TEXAS BOLT'S QUALITY ASSURANCE MANUAL, REV. 7, DATED 4/26/81."</p>											

Item No.	VISUAL MATRIVAL Inspection			Heat Number	C	Mn	Si	S	P	Cr	Ni	Mo	V			
	No. Tested	Accepted	Rejected													
1.	600'	600'	0	8087367	.400	.57	.30	.022	.008	.95		.51	.27			
				AVG. CHEM CHECK	.401	.58	.33	.025	.006	.96		.52	.29			
5/8"	2,300	2,300	0	6064469	.47	.83	.22	.030	.015			.23				
				AVG. CHEM CHECK	.49	.85	.21	.031	.017			.25				

INSPECTOR EVALUATION APPROVED BY:
MADALYNE STOCKTON, LEVEL I INSPECTOR

STATE OF TEXAS
COUNTY OF HARRIS

Subscribed and sworn to before me this 6th day of June, 1984.

I certify the above results to be correct as contained in the records of the company.

Caroline A. Parker
Notary public in and for Harris County, Texas.
My commission expires April 25 1985

Madalynne Stockton

FOR PUBLIC SERVICE CO. OF COLORADO

TEXAS BOLT COMPANY

CUSTOMER P.O. No. N5401 "REPLACEMENT"

P. O. BOX 1211

REPORT No. _____
10 CFR PART 21 APPLIES

TEXAS BOLT ORDER No. 177786
6-19-84 sc

HOUSTON, TEXAS 77251-1211

SPECIFICATIONS: ASTM A193 GRADE B16

REPORT OF PHYSICAL AND CHEMICAL TESTS

ITEM	Description	Material	Quantity	No. Pcs. Tested	Step Block Tensile	Ultimate Tensile PSI	Yield Strength	Elong %	RA. %	Hardness	Minimum Tempering Temperature
1.	ALL THREAD ROD 5/8" X 10 TO 12 FT.	B16	160 FT.	2		143,800	128,400	18.1	57.0		1200°F.
"ALL MATERIALS IN ACCORDANCE WITH TEXAS BOLT'S QUALITY ASSURANCE MANUAL, REV. 7, DATED 4/26/83."											
"ALL MATERIAL IS OF U.S. ORIGIN AND MANUFACTURED."											

Item No.	Visual Inspection			Heat Number	C	Mn	Si	S	P	Cr	Ni	Mo	V				
	No. Tested	Accepted	Rejected														
1.	160 FT.	160 FT.	0	8087367 AVG. CHEM CHECK	.400 .401	.57 .58	.30 .33	.022 .025	.008 .006	.95 .96		.51 .52	.27 .29				

INSPECTOR EVALUATION APPROVED BY:
EDWARD J. CHARANZA, LEVEL III INSPECTOR

STATE OF TEXAS
COUNTY OF HARRIS

Subscribed and sworn to before me this 19th day of June, 1984.

I certify the above results to be correct as contained in the records of the company.

Judith L. Reeves
Notary Public in and for Harris County, Texas.
My commission expires May 14, 1988

[Signature]

6821 TELEPHONE ROAD
HOUSTON, TEXAS 77061
(713) 645-8923

INSPECTOR'S COPY
NO. 100
INSPECTOR'S COPY

F.A. & REPAIR STATION NO. 205-3

BILL TO

TEXAS BIST

SHIPPED TO

QUANTITY	PART NUMBER	ITEM	SHIPPING HOURS	UNIT PRICE	TOTAL
50		5/8" Q X 20' R/L Public Service Co of Colorado P.O. W5401 T.B. # 177786			

MAGNETIC
PENETRANT

- WATERLUS
- MAGNAGLO
- DYGL
- SPOTCHECK

RADIOGRAPHIC

- X-RAY
- GAMMA RAY
- CONTACT
- SEED

ULTRASONIC

- HARDNESS
- DEMAGNETIZE
- OTHER

I.I.I. SECT. II

APPLICABLE SPECIFICATIONS OR PROCESS STANDARDS
PARTS INSPECTED IN ACCORDANCE WITH APPLICABLE INDUSTRIAL INSPECTION, INC. STANDARDS UNLESS OTHERWISE SPECIFIED

Terms: Net 30 days

REMARKS: STD. NAT PROC

[Handwritten notes]
ALL 50 PCS TESTED OK.

INDUSTRIAL INSPECTION, INC.

Certified and in accordance with terms and conditions on the reverse side of this document.

[Handwritten signature]
CUSTOMER SIGNATURE

[Handwritten signature]
INSPECTOR SIGNATURE

ATTACHMENT 4

10CFR21 COMMITTEE EVALUATION

10CFR21 REPORT



PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

PART 21 REPORT EVALUATION

NO. P 21-0020

PAGE 1 OF 2

A DESCRIBE DEFECT OR FAILURE-TO-COMPLY Linear surface indications were visually observed in fifteen (15) of sixty (60) all threaded rods which were to be used for reinforcement of safety related masonry block walls. Material was ordered under Public Service Company Purchase Order N-5401 'A', which required visual examination by the vendor under Specification ASTM A193, B16. Subsequent replacement of defective material was also defective.

B PRELIMINARY EVALUATION

ANSWER EACH OF THE FOLLOWING

- | | YES | NO | |
|---|-------------------------------------|-------------------------------------|---|
| 1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | SAFETY RELATED PLANT STRUCTURE, SYSTEM, COMPONENT, PART? |
| 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | PLANT FEATURES DESCRIBED IN THE FSAR? |
| 3 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | PLANT FEATURES ADDRESSED IN THE TECHNICAL SPECIFICATIONS? |
| 4 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | SUBJECT OF AN APPLICABLE NRC REGULATION? |
| 5 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | SITUATION IS NOT REPORTABLE UNDER THE CRITERIA OF TECH SPEC AC 7.2c, 7.5.2a, OR 7.5.2b. |

NOTE: AT LEAST ONE "YES" BOX MUST BE CHECKED ABOVE FOR THE DEFECT OR FAILURE-TO-COMPLY TO HAVE THE POTENTIAL FOR CREATING A SUBSTANTIAL SAFETY HAZARD.

C DETERMINE IF A SUBSTANTIAL SAFETY HAZARD EXISTS

- NO** A SITUATION WHICH COULD CONTRIBUTE TO THE RELEASE OF LICENSED MATERIAL.
- NO** A SITUATION WHICH COULD CONTRIBUTE TO PUBLIC RADIOACTIVITY EXPOSURE EXCEEDING THE CALCULATED EXPOSURES OF FSAR DBA NO. 2 BY 25 PERCENT.
- YES** A SITUATION WHICH COULD RESULT IN FAILURE OF A SAFETY RELATED COMPONENT OR DEVICE TO OPERATE.
- NO** A DEFICIENCY IN THE DESIGN, CONSTRUCTION, INSPECTION, TESTING, OR USE OF A LICENSED FACILITY OR MATERIAL WHICH COULD DOWNGRADE THE MARGIN OF SAFETY.
- NO** A SITUATION THAT COULD RESULT IN A FAILURE OF THE PHYSICAL SECURITY SYSTEM TO MEET THE APPROVED SECURITY PLAN.

D **NO** THE DEFECT OR FAILURE-TO-COMPLY MEETS NONE OF THE ABOVE CRITERIA.



PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

PART 21 REPORT TO THE NRC

NO. 50-267 / 84-01-01

PAGE 1 OF 3

1 FACILITY: FORT ST. VRAIN NUCLEAR GENERATING STATION.

2 BASIC COMPONENT OR ACTIVITY THAT FAILS-TO-COMPLY OR CONTAINS A DEFECT:

5/8" Diameter x 10' length, all threaded rod, heat #8087367.

Supplied by: Texas Bolt Company
P. O. Box 1211
Houston, Texas 77251

Purchased under: Purchase Order N-5401 'A' and Purchase Order N-5401 'B'.
Specification ASTM A193, B16.

3 IDENTIFICATION OF FIRM CONSTRUCTING THE FACILITY OR SUPPLYING THE BASIC COMPONENT OR ACTIVITY THAT FAILS-TO-COMPLY OR CONTAINS A DEFECT:

Supplier - Texas Bolt Company, P. O. Box 1211, Houston, Texas 77251

4 NATURE OF THE DEFECT OR FAILURE-TO-COMPLY AND THE SAFETY HAZARD WHICH IS CREATED OR COULD BE CREATED BY SUCH DEFECT OR FAILURE-TO-COMPLY:

Under Purchase Order N-5401 'A': Fifteen (15) of sixty (60) threaded rods had longitudinal cracks (laps) detected under visual receipt inspection. Of the remaining forty-five (45) rods which were magnetic particle tested, one (1) additional rod was rejected.

Under Purchase Order N-5401 'B': Five (5) of sixteen (16) threaded rods for the replacement shipment had longitudinal cracks (laps) detected under visual receipt inspection.



PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

PART 21 REPORT TO THE NRC

NO. 50 - 267/ 84-01-01

PAGE 2 OF 3

5 DATE ON WHICH THE INFORMATION OF DEFECT OR FAILURE - TO - COMPLY WAS OBTAINED:

July 30, 1984 (84-01)

6 IN THE CASE OF A BASIC COMPONENT WHICH CONTAINS A DEFECT OR FAILURE - TO - COMPLY, THE NUMBER AND LOCATION OF ALL SUCH COMPONENTS IN USE AT THE FACILITY:

None. Defective material was identified during receiving inspection and prior to use. No other material of this heat number is in use at Fort St. Vrain.

7 CORRECTIVE ACTION THAT HAS BEEN, OR WILL BE TAKEN; THE NAME OF THE INDIVIDUAL OR ORGANIZATION RESPONSIBLE FOR THE ACTION AND THE LENGTH OF TIME THAT HAS BEEN OR WILL BE TAKEN TO COMPLETE THE ACTION:

- a. For Purchase Order N-5401 'A', the fifteen (15) rods identified by visual examination to be defective were rejected. All remaining rods were magnetic particle tested and one (1) additional rod was rejected under this test. These sixteen (16) rods were returned to vendor for replacement.
- b. For Purchase Order N-5401 'B', sixteen (16) replacement rods were received. Of these, five (5) were rejectable by visual examination. All sixteen (16) rods were rejected and sent back to the vendor. No replacements were requested or received.

(continued on Page 3)

8 ADVICE RELATED TO THE DEFECT OR FAILURE TO COMPLY ABOUT THE FACILITY, ACTIVITY, OR BASIC COMPONENT THAT HAS BEEN, IS BEING, OR WILL BE GIVEN TO PURCHASERS OR LICENSEES.

Texas Bolt Company was to perform a visual examination of the material prior to the first shipment. A magnetic particle test was also requested for the replacement shipment. These tests/inspections were not performed in sufficient depth by Texas Bolt Company to identify the defects.

9 NOTIFICATION TO THE NRC BY:

Original submittal (84-01) signed 07/31/84.

O. R. LEE
VICE PRESIDENT, ELECTRIC PRODUCTION
PUBLIC SERVICE COMPANY OF COLORADO
P. O. BOX 840
DENVER, COLORADO 80201

O. R. Lee by [Signature]
(SIGNATURE)

9-12-84
(DATE)

7. (continued)

- c. Procurement of all quality related materials directly from Texas Bolt Company has been suspended.
- d. All previous Purchase Orders were reviewed to determine if any other material from heat #8087367 has been received. No other material from this heat has been received or is in use.