

Attachment 1

Fastener Testing Data Sheet

\*Sample ID# <sup>TVA</sup> BFN-48

Fastener Description: 5/8" - 11 NUT

Description of Sample Stock Location: 84 DC 87NSR-31999A ITEM 11

Material Specification as Documented by Licensee Records: ASTM A563 Gr A

Head Marking (Specification and Manufacturer):

T

\*\*Class/Procurement Level:

QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)

HPCI ELECTRICAL ; MECHANICAL

Vendor: 87NSR-31999A SOUTHERN BOLT & FASTENER  
PO BOX 7196  
SARASOTA, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec. 2.1  
Appendix E, AEE 6, NQAM III, sec 2.1

Licensee Representative:

Signature

S.N. Cat

Date

12/21/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Mfg: TEXAS BOLT CO.

P.O. Box 1211

HOUSTON, TEXAS 77251

Attachment 1

Fastener Testing Data Sheet

<sup>TVA</sup>  
\*Sample ID# BFN-49

Fastener Description: 1/2" - 13 NUT

Description of Sample Stock Location: B4 DC 87NJR -31999A ITEM 15

Material Specification as Documented by Licensee Records: A563 GR A

Head Marking (Specification and Manufacturer):

T

\*\*Class/Procurement Level:

QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)  
HPLI ELECTRICAL & MECHANICAL

Vendor: 87NJR -31999A SOUTHERN BOLT & FASTENER  
P.O. BOX 719  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec 2.1  
Appendix E, Att 6, NQAM III, sec. 2.1

Licensee Representative:

Signature S.N. Cote

Date 12/21/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

MAJ: TEXAS BOLT CO.  
P.O. BOX 1211  
HOUSTON, TEXAS 77251



Attachment 1

Fastener Testing Data Sheet

TVA  
\*Sample ID# BFN-50

Fastener Description: 1/2" - 13 NUT

Description of Sample Stock Location: B4 DC 87NJR - 31999A ITEMS

Material Specification as Documented by Licensee Records: ASTM A563 Gr A

Head Marking (Specification and Manufacturer):

T

\*\*Class/Procurement Level:

QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)

HPCI ELECTRICAL; MECHANICAL

Vendor: 87NJR - 31999A SOUTHERN BOLT & FASTENER  
P.O. BOX 7116  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec. 2.1  
Appendix E, Att 6, NQAM III, sec. 2.1

Licensee Representative:

Signature

S.N. Cato

Date

12/2/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

MAg: TEXAS BOLT Co.  
P.O. BOX 1211  
HOUSTON, TEXAS 77251

Attachment 1

Fastener Testing Data Sheet

\*Sample ID# <sup>TVA</sup> BFN-51

Fastener Description: 1/2" - 13 NUT

Description of Sample Stock Location: B4 DC 87NSR-31999A ITEM 15

Material Specification as Documented by Licensee Records: ASTM A563 GRA

Head Marking (Specification and Manufacturer):

T

\*\*Class/Procurement Level:

QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)  
HPCI ELECTRICAL MECHANICAL

Vendor: 87NSR-31999A

SOUTHERN BOLT & FASTENER  
P.O. BOX 7196  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec. 2.1  
Appendix E, Att 6, NQAM III, sec. 2.1

Licensee Representative:

Signature S.N. Catb

Date 12/21/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

MAG: TEXAS BOLT CO.  
P.O. BOX 1211  
HOUSTON, TEXAS 77251



Attachment 1

Fastener Testing Data Sheet

<sup>TVA</sup>  
\*Sample ID# BFN-52

Fastener Description: 1/2" -13 NOT

Description of Sample Stock Location: B4 DC 87NJR-31999A ITEM 15

Material Specification as Documented by Licensee Records: ASTM A563 GrA

Head Marking (Specification and Manufacturer):

T

\*\*Class/Procurement Level:

QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)

HPCI ELECTRICAL ; MECHANICAL

Vendor: 87NJR-31999A

SOUTHERN BOLT & FASTENER  
P.O. BOX 7196  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec. 2.1  
Appendix C, sec. 6, NQAM II, sec. 2.1

Licensee Representative:

Signature S.N. Cato

Date 12/21/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Mfg: TEXAS BOLT CO.  
P.O. Box 1211  
HOUSTON, TEXAS 77251

Attachment 1

Fastener Testing Data Sheet

TVA  
\*Sample ID# BEN-53

Fastener Description: 1/2" - 13 NUT

Description of Sample Stock Location: B4 DC 87NJR-31999A ITEM 15

Material Specification as Documented by Licensee Records: ASTM A563 Gr A

Head Marking (Specification and Manufacturer): T

\*\*Class/Procurement Level:  
QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)  
HPCI ELECTRICAL & MECHANICAL

Vendor: 87NJR-31999A SOUTHERN BOLT & FASTENER  
P.O. BOX 7196  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec. 2.1  
Appendix E, A-6, NQAM III, sec. 2.1

Licensee Representative:

Signature S.N. Cat Date 12/21/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

MPg: TEXAS BOLT CO.  
P.O. Box 1211  
HOUSTON, TEXAS 77251



Attachment 1

Fastener Testing Data Sheet

<sup>TVA</sup>  
\*Sample ID# BFN-54

Fastener Description: 1/2" - 13 NUT

Description of Sample Stock Location: B4 DC 87NJR-31999A ITEM 15

Material Specification as Documented by Licensee Records: ASTM A563 Gr A

Head Marking (Specification and Manufacturer): T

\*\*Class/Procurement Level:  
QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)  
HPCI ELECTRICAL / MECHANICAL

Vendor: 87NJR-31999A SOUTHERN BOLT & FASTENER  
P.O. Box 7116  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec. 2.1  
Appendix E, Act 6, NQAM III, sec. 2.1

Licensee Representative:

Signature S. N. Cat Date 12/21/01

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Mfg: TEXAS BOLT CO.  
P.O. Box 1211  
HOUSTON, TEXAS 77251

Attachment 1

Fastener Testing Data Sheet

TVA  
\*Sample ID# BFN-55

Fastener Description:  $\frac{3}{8}$  - 16 NUT

Description of Sample Stock Location: B4 DL 87NJR -31999A ITEM 9

Material Specification as Documented by Licensee Records: ASTM A563 Gr A

Head Marking (Specification and Manufacturer): T

\*\*Class/Procurement Level:  
QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)  
HPCI ELECTRICAL : MECHANICAL

Vendor: 87NJR-31999A SOUTHERN BOLT & FASTENER  
P.O. Box 7196  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec. 2.1  
Appendix E, Att. 6, NQAM III, sec. 2.1

Licensee Representative:

Signature S.N. Calk Date 12/21/01

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

MAJ: TEXAS BOLT CO.  
P.O. Box 1211  
HOUSTON, TEXAS 77251



Attachment 1

Fastener Testing Data Sheet

TVA  
\*Sample ID# BFN-56

Fastener Description: 3/8" - 16 NUT

Description of Sample Stock Location: B4 DC 87NJR-31999A ITEM 9

Material Specification as Documented by Licensee Records: ASTM A563 Gr A

Head Marking (Specification and Manufacturer): T

\*\*Class/Procurement Level:  
QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)  
HPCI ELECTRICAL & MECHANICAL

Vendor: 87NJR-31999.A

SOUTHERN BOLT & FASTENER  
P.O. BOX 7196  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM VII, SEC. 2.1  
Appendix E, App. 6, NQAM III, SEC. 2.1

Licensee Representative:

Signature S.N. Cato

Date 12/21/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

TEXAS BOLT CO.  
P.O. BOX 1211  
HOUSTON, TEXAS 77251

Attachment 1

Fastener Testing Data Sheet

TVA  
\*Sample ID# BFN-57

Fastener Description: 1"-8 NUT

Description of Sample Stock Location: B4 DC 87NSR-31999A ITEM 7

Material Specification as Documented by Licensee Records: ASTM A563 Gr A

Head Marking (Specification and Manufacturer): T

\*\*Class/Procurement Level:  
QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)  
HPCI ELECTRICAL & MECHANICAL

Vendor: 87NSR-31999A SOUTHERN BOLT & FASTENER  
P.O. BOX 7196  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, SEC. 2.1  
Appendix E, Act. 6, NQAM III, SEC. 2.1

Licensee Representative:

Signature S.N. Cato Date 12/21/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Mfg: TEXAS BOLT CO.  
P.O. Box 1211  
HOUSTON, TEXAS 77251



Attachment 1

Fastener Testing Data Sheet

<sup>TVA</sup>  
\*Sample ID# BFN-58

Fastener Description: 1"-8 NUT

Description of Sample Stock Location: B4 DC 87NJR-31999A ITEM 7

Material Specification as Documented by Licensee Records: ASTM A563 Gr A

Head Marking (Specification and Manufacturer): T

\*\*Class/Procurement Level:

QA LEVEL II

General Plant Application (e.g., Pressure Boundary, Structural)

HPCI ELECTRICAL : MECHANICAL

Vendor: 87NSR-31999A

SOUTHERN BOLT & FASTENER  
P.O. BOX 7196  
SHREVEPORT, LA 71107

QA Requirements Imposed on Vendor: Appendix D, NQAM III, sec. 2.1  
Appendix E, Att. 6, NQAM III, sec. 2.1

Licensee Representative:

Signature S.N. [Signature]

Date 12/21/87

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

MPG: TEXAS BOLT CO  
P.O. Box 1211  
HOUSTON, TEXAS 77251

**APPENDIX B  
BROWNS FERRY NUCLEAR PLANT**

**Data Summary**

Appendix B is comprised of the Compliance Bulletin 87-02 "Attachment 2 Data Summary" data sheets. The mechanical and chemical analysis for each item as required by the appropriate specification and Action Item 4 of Compliance Bulletin 87-02 is listed. Out of tolerance items are denoted by an asterisk (\*).



Appendix B  
(NRC Attachment 2)  
Data Summary (BFN)

Mechanical Analysis					Chemical Analysis (Weight Percent)							
TVA ID#	Hardness (Rockwell)	UTS (PSI)	0.2% YS (PSI)	Other	C	Mn	P	S	Si	Mo	Cr	Other
BF1	B94	100,950					0.008	0.022				
BF2	B98	100,630					0.011	0.023				
BF3	B93	100,130					0.011	0.023				
BF4	B95	98,840					0.011	0.023				
BF5	B95	99,015					0.011	0.020				
BF6	B99	96,530					0.009	0.019				
BF7	53.0	168,580			0.38		0.028	0.017				
BF8	50.5	163,800			0.36		0.027	0.017				
BF9	50.6	160,050			0.38		0.009	0.019				
BF10	53.6	159,330			0.38		0.009	0.018				
BF11	37.4	138,820			0.20*	1.09	0.017	0.021			B=.0026	
BF12	36.8	142,730			0.17*	1.10	0.013	0.019			B=.0021	
BF13	B98	99,500					0.013	0.029				
BF14	B99	96,400					0.014	0.027				
BF15	B91				0.03		0.026	0.027				



Appendix B  
(NRC Attachment 2)  
Data Summary (BFN)

Mechanical Analysis				Chemical Analysis (Weight Percent)								
TVA ID#	Hardness (Rockwell)	UTS (PSI)	0.2% YS (PSI)	Other	C	Mn	P	S	Si	Mo	Cr	Other
BF16	B91				0.01	0.64	0.026	0.028				
BF17	C29	136,900	127,400		0.37	0.79	0.014	0.016	0.32	0.16	0.78	
BF18	C26	122,000	100,000		0.37	0.77	0.017	0.015	0.31	0.17	0.83	
BF19	C22	138,600	122,100		0.39	0.74	0.011	0.017	0.31	0.23	0.81	
BF20	C28	140,000	119,100		0.39	0.74	0.013	0.014	0.28	0.22	0.88	
BF21	C26	144,300	131,200		0.41	0.87	0.013	0.024	0.32	0.17	0.91	
BF22	C30	139,100	126,600		0.40	0.87	0.013	0.023	0.35	0.17	0.85	
BF23	C24				0.42		0.010	0.022				
BF24	C25				0.44		0.011	0.023				
BF25	44.7	165,520			0.17		0.013	0.014				
BF26	38.6	169,140			0.18	0.68	0.018	0.018				
BF27	B88	85,700	63,200		0.03	1.41	0.022	0.006	0.35		16.71	Ni=8.67
BF28	B94	88,900	66,400		0.04	1.38	0.017	0.012	0.36		16.39	Ni=8.48
BF29	B75	81,040					0.018	0.015				
BF30	B74	81,040					0.022	0.009				

Appendix B  
(NRC Attachment 2)  
Data Summary (BFN)

Mechanical Analysis				Chemical Analysis (Weight Percent)									
<u>TVA ID#</u>	<u>Hardness (Rockwell)</u>	<u>UTS (PSI)</u>	<u>0.2% YS (PSI)</u>	<u>Other</u>	<u>C</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Si</u>	<u>Mo</u>	<u>Cr</u>	<u>Other</u>	<u>Other</u>
BF31	C41	190,200			0.40		0.020	0.033					
BF32	C39	195,900			0.40		0.021	0.033					
BF33	C41				0.34		0.011	0.014					
BF34	C40				0.37		0.017	0.033					
BF35	B94	69,415					0.017	0.011					
BF36	B97	72,513					0.017	0.013					
BF37	B96	86,610					0.020	0.026					
BF38	B97	89,500					0.020	0.027					
BF39	B77	88,770					0.022	0.034					
BF40	B90	88,900					0.020	0.030					
BF41	C27				0.40		0.022	0.014					
BF42	C24				0.40		0.022	0.015					
BF43	C27				0.41		0.027	0.013					
BF44	C27				0.40		0.025	0.014					



Appendix B  
(NRC Attachment 2)  
Data Summary (BFN)

<u>Mechanical Analysis</u>					<u>Chemical Analysis (Weight Percent)</u>							
<u>TVA ID#</u>	<u>Hardness (Rockwell)</u>	<u>UTS (PSI)</u>	<u>0.2% YS (PSI)</u>	<u>Other</u>	<u>C</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Si</u>	<u>Mo</u>	<u>Cr</u>	<u>Other</u>
BF45	B89				0.40		0.025					
BF46	B87				0.40		0.030					
BF47	B93				0.07		0.019					
BF48	B94				0.11		0.013					
BF49	B82				0.01		0.012					
BF50	B80				0.04		0.010					
BF51	B80				0.03		0.011					
BF52	B81				0.02		0.011					
BF53	B79				0.02		0.011					
BF54	B81				0.06		0.010					
BF55	B91				0.16		0.011					
BF56	B91				0.17		0.012					
BF57	B87				0.40		0.013					
BF58	B88				0.41		0.018					



APPENDIX C  
SUMMARY OF INCONSISTENCIES AND ASSESSMENTS OF OPERABILITY IMPACT

Browns Ferry Nuclear Plant

Page 1 of 1

SME Lab No.	Description (Inches)	QA Level	Description of Discrepancy	Remarks	Assessment of Operability Impact
BF1	1/4-20x1 Hex. H. Capscrew	2	Some documentation missing for A307 Gr. A	Fastener passed all regm'ts for A307 Gr. A. No receipt inspection documentation; fasteners inspected and documented when issued.	None/Fastener met specification requirements. Reference CAQR BFP880066
BF2	1/4-20x1 Hex. H. Capscrew	2	Same as for BF1	Same as for BF1	None/Same as for BF1. Reference CAQR BFP880066
BF11	1-8x4-1/2 Hex H. Capscrew	2	Marking indicate SAE Gr 5. Carbon below specification	Met mechanical and chemical specs for SAE Gr 5.2	None/Met strength and hardness requirements for Gr 5, and 5.2. Reference CAQR BFN880058
BF12	1-8x4-1/2 Hex. H. Cap-screw	2	Same as for BF11	Met mechanical and chemical specs for SAE Gr 5.2	None/Same as for BF11. Reference CAQR BFP880058
BF18	3/4-10x3-1/2 stud	1	Low yield and tensile strength for SA 193 Gr. B7 stud	Req'd yield strength 105 ksi, actual 100 ksi; Req'd tensile strength 125 ksi.; actual 122 ksi.	None/Percentage below specification requirements not significant for applications involved; design tolerances were evaluated and acceptable; item met all other requirements. Reference CAQR BFP880059

## ENCLOSURE 2

### BELLEFONTE NUCLEAR PLANT

#### BLN RESPONSE TO NRC COMPLIANCE BULLETIN NO. 87-02

#### ACTION ITEM 1

Describe (a) the characteristics currently examined during receipt inspection of fasteners (i.e., head markings for grade and manufacturer symbols, review of certified material test report or certificate of conformance) and (b) internal controls utilized during storage and issuance from stock to assure the appropriate use of fasteners.

#### Response

##### (a) Receipt Inspection

Receipt inspection of fasteners is addressed in site procedures. Engineering specifies the Quality Assurance (QA) and technical requirements for fasteners in procurement documents. The following are attributes of fasteners inspected during receipt inspection as appropriate for the applicable quality level: evidence of shipping or physical damage, identification/markings, manufacturing documentation, protective covers/seals, coatings/preservations/desiccants, cleanliness, dimensions, workmanship, and other special and source inspection requirements. When required by the purchase request, physical and chemical properties are verified by review of the material test report (MTR) or the certified material test report (CMTR) as applicable.

##### (b) Internal Controls

Internal controls at BLN are separately described below for Power Stores and Construction.

##### (1) Power Stores

After the inspections have been completed, acceptable QA Level I, II, and III (see definitions below) items are marked with the procurement document and item number. Items are then appropriately tagged in accordance with site procedures. QA Levels, I, II, and III are defined as follows at BLN.

QA Level I - Those materials, components, and spare parts that are "basic components" and are not "commercial grade."

QA Level II - Those materials, components, and spare parts that are "basic components" and are "commercial grade."



- QA Level III - Those materials, components, and spare parts for CSSC (CSSC = critical structures, systems, and components) items that are not "basic components."
- QA Level 0 - It should be noted that for the purpose of responding to this bulletin, non-QA fasteners selected for testing are identified as "QA Level 0."

Nonconforming materials found during receipt inspection are identified, segregated, and dispositioned in accordance with TVA site procedure. Storage requirements for CSSC material are identified in site procedures. Positive identification between the fasteners and contract documentation is maintained. For CSSC stocked material, its container or material tag has identification to show the following:

1. The applicable material specification, grade/type, code class.
2. The QA level of the material.
3. The TVA Item Identification Code (TIIC) number and contract documentation.

The TIIC number is an internal warehousing descriptor used in ordering stock replacement and establishing the appropriate storage bin. The storage bins are kept under "lock and key," with access to the storage bin area being controlled. It should be noted, bolting materials may be stored on open shelving within the controlled storage area, not under "lock and key," due to physical size or quantity of bolts.

Material issuance is controlled by requiring that a completed Material Issue Request (MIR) Form 575 be submitted to Power Stores by authorized personnel. The TVA Form 575 provides traceability from procurement documentation to point of installation. Power Stores verifies all pertinent information on TVA Form 575, then issues the material in accordance with site procedures.

## (2) Construction

After the inspections have been completed, acceptable Quality Level I, II, and III items are appropriately marked in accordance with site construction procedures. Quality Levels I, II, and III are defined for construction as follows:

Quality Level I - To be used for all material where certification requirements include copies of Certified Material Test Reports (CMTR) by heat number, batch, lot number, or other identification.

Quality Level II - To be used for all material where certification requirements include a statement of compliance with the applicable specifications, codes, standards, or other requirements.



Quality Level III - All material where certification is not mandatory for various miscellaneous items suitable for a particular application.

Upon receipt of fastener material, BLN Construction selects a random sample and forwards them to Singleton Materials Engineering Laboratory (SME) for verification testing. Nonconforming materials found during receipt inspection are identified, segregated, and dispositioned in accordance with TVA site procedures.

Construction maintains positive identification for fasteners by:

1. The material specifications, grade/type and code class.
2. Mark letter number.

Material issuance from the Construction warehouse is controlled by requiring that a completed form TVA 575 be submitted by authorized personnel.

Traceability is maintained for specific fastener material until the point of issue as required by site procedures.

#### ACTION ITEM 4

Select a minimum sample of 10 nonsafety-related fasteners (studs, bolts, and/or cap screws) and 10 safety-related fasteners (studs, bolts, and/or cap screws) from current, in use, stock. The sample is to be obtained by the licensee with the participation of an NRC inspector. Fasteners procured to meet the following chemical and mechanical properties are of interest: A-193 grades B7, B8, and B16; SAE J429 grades 5 and 8; A-449; A-325 Types 1, 2, or 3; A-354 grades BB, BC, BD; A-490; A320 L7M; A-307; A-563; or equivalent.

#### Response

The samples were selected for testing with the assistance of an NRC inspector as required by the compliance bulletin. The samples are listed in Appendix A. Appendix A is in the required format of Attachment 1 to Compliance Bulletin 87-02. These items were selected from Power Stores and Construction warehouse at BLN on December 21, 1987. The participating NRC inspector and TVA counterpart were John W. York and Richard A. Polehn, respectively.

### ACTION ITEM 3

For the selected sample of fasteners in item 2, include a sample of typical nuts that would be used with each fastener (one-for-one). In particular, nuts purchased to the chemical and mechanical specifications of A-194 are of interest.

#### Response

The nuts were selected for testing at the same time as the fasteners in item 2 with the assistance of the NRC inspector. The nuts are listed in Appendix A. Note that several A-194 nuts were tested.

### ACTION ITEM 4

Chemical testing shall be performed on all samples. Mechanical testing shall be performed on each safety-related fastener. Hardness testing shall be performed on each nut and nonsafety-related fastener. All testing shall be performed by a laboratory which the licensee has qualified for this type of testing and appears on the licensee's approved vendor list. Testing performed shall be done in accordance with the requirements of the fastener's specification, grade, and class; and the tests shall evaluate the ultimate tensile strength, hardness, and chemical properties as required by the fastener's specification, grade, and class. Each sample shall be tagged with the sample's ID number.

#### Response

The fastener testing was performed by TVA's SME and TVA's Central Laboratory Systems Branch (CLSB). SME and CLSB are TVA laboratories qualified to perform the mechanical testing and chemical analysis specified in Compliance Bulletin 87-02. SME and CLSB are on the BLN approved vendor list. Fastener test results are reported in accordance with Action Item 5.

### ACTION ITEM 5

The results of all tests, together with supporting information, are to be reported to the NRC utilizing the format shown in Attachments 1 and 2 of this bulletin. Include the names and addresses of suppliers and manufacturers of safety-related fasteners and, to the extent possible, of nonsafety-related fasteners. For any fastener found out of specification, provide an evaluation of the safety significance including consideration of the most limiting application.



## **Response**

Appendices A and B report the data in the format as required by the NRC's Attachments 1 and 2, respectively. Fasteners with out-of-tolerance results, supporting technical evaluations and required actions are listed in Appendix C. For fasteners with safety-related applications, seven conditions adverse to quality reports (CAQRs) BLP880040-45 and 52 were initiated. BLP880045 was deemed to be significant based on indications of an adverse trend (CAQRs BLP880040, 43, 44, and 45) with maintaining the proper storage identity and segregation of fasteners.

None of the seven CAQRs were determined to affect operability or to be reportable. The discrepant conditions reported were either minor in nature or involved improper maintenance of identity in storage. CAQR BLP880045 will be used for recording actions to prevent future occurrences. CAQR corrective action/resolution is still in progress and final resolution will be documented with closure of the CAQRs.

### **ACTION ITEM 6**

Based on the results of the testing and review of current procedures, describe any further actions being taken to ensure that fasteners used in the plant meet the requisite specifications and requirements and that the operability of safety-related plant components is not affected.

## **Response**

Based on the review of current procedures, TVA concludes that the current receipt inspection and internal control practices are acceptable. Descriptions of current fastener receipt and internal control requirements in the response to Action Item 1 indicate a logical and coherent approach to receipt, storage, issue, and use of fasteners.

An evaluation of in-stock safety-related bolting material will be completed by May 1, 1989 to verify acceptability of existing stock. A controlled release program has been implemented that provides for an evaluation of the acceptability of an item for its intended end use.



**APPENDIX A  
BELLEFONTE NUCLEAR PLANT**

**Data Summary**

Appendix A contains data sheets formatted by the NRC and identified as "Attachment 1 Fastener Testing Data Sheet." These data sheets carry the signature of TVA's representatives that participated in sampling of the fasteners.

Attachment 1

Fastener Testing Data Sheet

TVA B6979/  
\*Sample ID# BLN-PI-B

8SP74-344557  
5/29/85  
ITEM #44

Fastener Description:  
CAPSCREW 1"-8 UNC X 6"

Description of Sample Stock Location:  
SS06-28-3 (POWER STORES) T11C # 8A P0Y5M

Material Specification as Documented by Licensee Records:  
SA 193 GR 88

Head Marking (Specification and Manufacturer):  
8 T

\*\*Class/Procurement Level:  
QL1 (ENTR REQ'D)

General Plant Application (e.g., Pressure Boundary, Structural)  
PRESSURE BOUNDARY

Vendor: AEG ENGINEERING  
4640 E LA PALMA AVE  
ANAHEIM CA 92807

QA Requirements Imposed on Vendor:  
CMTR PER ASME III-2

Licensee Representative: RICH POLEHN

Signature Richard Polehn Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6980/

\*\*Sample ID# BLN-PI-N

BSP74-344557

4/16/85

ITEM # 82

Fastener Description:

NUT 1"-8UNC

Description of Sample Stock Location:

C-385-G2 (POWER STORES) T11C # BDP183J

Material Specification as Documented by Licensee Records:

SA 194 GR 8

Head Marking (Specification and Manufacturer):

B

T

\*\*Class/Procurement Level:

QL1 / CMTR REQ'D)

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: AEG ENGINEERING

4640 LA PALMA AVE

ANAHEIM CA 92807

QA Requirements Imposed on Vendor:

CMTR PER ASME III-2

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA 86981/

\*Sample ID# BLN-P2-B

BSP74-344557

4/1/85  
ITEM #70

Fastener Description:

CAPSCREW 7/8"-9UNC X 6"

Description of Sample Stock Location:

SS06-1B-3 (PLNER STORES) BDI 161W

Material Specification as Documented by Licensee Records:

SA 325 TPI

Head Marking (Specification and Manufacturer):

3 RAD LINES, 120° AMET T  
A325

\*\*Class/Procurement Level:

QL1 (CMTR REQ'D)

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: A C G ENGINEERING  
4640 E LA PALMA AVE  
ANAHEIM, CA 92807

QA Requirements Imposed on Vendor:

CMTR PER ASME II-2

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B6982/

\*Sample ID# BLN-A2-N

Fastener Description:

NUT 7/8" - 9UNC

85A74-344557

4/16/85

ITEM #89

Description of Sample Stock Location:

C-385-DS (POWER STORES) TIC# BDP1940

Material Specification as Documented by Licensee Records:

SA 563 GR C

Head Marking (Specification and Manufacturer):

3 CIRCLES 120° APART T

\*\*Class/Procurement Level:

QL1 (CMTR REQ'D)

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: A & G ENGINEERING  
4640 E LA PALMA AVE  
ANAHEIM, CA 92807

QA Requirements Imposed on Vendor:

CMTR PER ASME III-2

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6983/  
\*Sample ID# BLN-A3-B

BIPKS-175266  
ITEM#31  
1/8/81

Fastener Description:

CAPSCREW 3/8"-16UNC X 5" SOCKET HEAD

Description of Sample Stock Location:

C-366-1 (POWER STORES) TIL# BDA737L

Material Specification as Documented by Licensee Records:

A354 GR BA

Head Marking (Specification and Manufacturer):

NONE

NONE

[ SHOULD HAVE 6  
RADIAL LINES ]

\*\*Class/Procurement Level:

QL3 COC OPTIONAL

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: CHALLENGE SUPPLY

2107 HUFF PLACE

CHATTANOOGA, TN 37404

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH FOLEHN

Signature Richard Folehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*if applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B6984/

\*Sample ID# B-N1-A3-N

ESP74-344557

4/16/85

ITEM # 84

Fastener Description:

NUT -  $\frac{3}{8}$ " - 16 UNC

Description of Sample Stock Location:

C-365-10 (POWER STORES) TAIL = BEND 363X

Material Specification as Documented by Licensee Records:

SA 194 GR 2H

Head Marking (Specification and Manufacturer):

ZH

T

\*\*Class/Procurement Level:

QL1 (CMTR REQ'D)

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY OR STRUCTURAL

Vendor: A & G ENGINEERING  
4640 E LA PALMA AVE  
ANAHEIM CA 92807

QA Requirements Imposed on Vendor:

CMTR PER ASME III-2

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6985/

\*Sample ID# BLN-PY-B

79 PL4-254909

ITEM #8

4/25/80

Fastener Description:

VENDOR STUD 1 1/4" x 7 1/2"

Description of Sample Stock Location:

C-69A-1 (POWER STORES) T11C # AVS30L

Material Specification as Documented by Licensee Records:

SA 193 GR B7

Head Marking (Specification and Manufacturer): PURCHASE ORDER  
BT SK842 2845

\*\*Class/Procurement Level:

QL 1 (CMTR REQ'D)

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: BINGHAM-WILLAMETTE  
2800-T NW FRONT AVE  
PORTLAND, OR 97210

PART FOR PUMP  
# A-47399-18

QA Requirements Imposed on Vendor:

III-2 CMTR

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA BG986/  
\*Sample ID# BLN-P4-N

BIPKS-275285-2  
ITEM #2  
1982

Fastener Description:

NUT 1 1/4" X 5/8"

Description of Sample Stock Location:

C-69D-7 (POWER STORES) T11C# AYJ163G

Material Specification as Documented by Licensee Records:

SA 194 GR 7

Head Marking (Specification and Manufacturer):

7

HT# HT CODE  
68231 7856C-1

\*\*Class/Procurement Level:

QL1 (CMTR REQ'D)

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor:

CHALLENGE SUPPLY  
2107 HUFF PLACE  
CHATTANOOGA, TN 37404

QA Requirements Imposed on Vendor:

CMTR PER ASME III-1

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6987/  
\*Sample ID# BLN-C5-B

776331-1  
7/29/80  
ITEM#6

Fastener Description:

STD 5/8"-NCX 4"

Description of Sample Stock Location:

WB-01-PE KADH

Material Specification as Documented by Licensee Records:

A193 GR B8

Head Marking (Specification and Manufacturer):

B8 PMC

\*\*Class/Procurement Level:

QL 2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor:

DETROIT NUT & BOLT

8100 SCHOOLCRAFT AVE, DETROIT, MI 48238

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B6988/  
\*Sample ID# BLN-CS-N

Fastener Description:

NUT 5/8"-NC

RD# 513925

2/10/76

ITEM #41

Description of Sample Stock Location:

WB-08-A0 HCDC

Material Specification as Documented by Licensee Records:

A194 GR 8

Head Marking (Specification and Manufacturer):

8

B

\*\*Class/Procurement Level:

QL2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor:

SCHNITZER ALLOY PRODUCTS COMPANY - IQT 74X54-53387-2  
325 PINE ST. , ELIZABETH, N. J.

QA Requirements Imposed on Vendor:

✓COC & MILL CERTIFICATION

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6989/

\*Sample ID# BLN-C6-B

Fastener Description:

BOLT  $\frac{3}{4}$ "-NC X  $4\frac{1}{2}$ "

Description of Sample Stock Location:

WB-01-AA HAEK

Material Specification as Documented by Licensee Records:

A193 GR B7

Head Marking (Specification and Manufacturer):

B7

S

\*\*Class/Procurement Level:

QL2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)  
PRESSURE BOUNDARY

Vendor: DETROIT NUT & BOLT

17000 SOUTHFIELD ROAD  
ALLEN PARK, MI. 48101

75X54-65570

QA Requirements Imposed on Vendor:

✓COC

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B6990/

\*Sample ID# BLN-C6-N

RD 587811

9/15/77.

ITEM #19

Fastener Description:

NUT 3/4"-NC

Description of Sample Stock Location:

WB-02-AG HCBF

Material Specification as Documented by Licensee Records:

A194 GR 2H

Head Marking (Specification and Manufacturer):

ZH

JS

\*\*Class/Procurement Level:

QL2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY & STRUCTURAL

Vendor: WHITTAKER FASTENER

17000 SOUTHFIELD RD

77X74-543351

ALLEN PARK, MI 48101

QA Requirements Imposed on Vendor:

✓COC

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6991/  
\*Sample ID# BLN-C7-B

TEXAS BOLT  
RD 697789  
11/5/79 ..  
ITEM #165

Fastener Description:

STUD 1 1/4" - NCX 13"

Description of Sample Stock Location:

HA-09-UN HCIP

Material Specification as Documented by Licensee Records:

SA 193 GR B7

Head Marking (Specification and Manufacturer): HT#  
B7 T JS17

\*\*Class/Procurement Level:

ASME III-2

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: CAPITOL PIPE

1501 S CLARKSON

CHARLOTTE NC 28233

77K53-821594

QA Requirements Imposed on Vendor:

✓ CNTRS PER ASME III-2

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B6992/

\*Sample ID# BLN-C7-N

TEXAS BOLT  
AID 697789  
11/5/79

Fastener Description:

NUT 1 1/4" - NC

Description of Sample Stock Location:

HD-09-UN (SUPPLIED WITH STUD BLN-C7-B) HCIP

Material Specification as Documented by Licensee Records:

SA194 GR 7

Head Marking (Specification and Manufacturer): HT#  
7 T JS24

\*\*Class/Procurement Level:

ASME III-2

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: CAPITAL PIPE

1501 S CLARKSON

CHARLOTTE, NC 28233

77 K53-821594

QA Requirements Imposed on Vendor:

VCMTS PER ASME III-2

Licensee Representative: RICH POEHN

Signature Richard Poehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6993/

\*Sample ID# BLN-CB-B

TENAS BOLT  
RD 831679 ITEM #6...  
6/24/82

Fastener Description:

STUD 5/8"-NC X 2 3/4"

Description of Sample Stock Location:

WB-01-ES HCXO

Material Specification as Documented by Licensee Records:

SA 193 GR B8

Head Marking (Specification and Manufacturer):

B8

T

\*\*Class/Procurement Level:

ASME III-2

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: CAPITOL PIPE

1501 S CLARKSON

CHARLOTTE, NC 28233

80KA3-825673

QA Requirements Imposed on Vendor:

ASME III-2 CMTR

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B6994/

\*Sample ID# BLN-CB-N

Fastener Description:

NUT 5/8" - NC

Description of Sample Stock Location:

WB-01-ES (SUPPLIED WITH STUD #BLN-CB-B) HCLD

Material Specification as Documented by Licensee Records:

SA 194 GR 6

Head Marking (Specification and Manufacturer):

6

T

\*\*Class/Procurement Level:

ASME III-2

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: CAPITOL PIPE

1501 S CLARKSON

CHARLOTTE NC 28233

80 KA3-825673

QA Requirements Imposed on Vendor:

ASME III-2 CMTR

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6995/

\*Sample ID# BLN-C9-B

RD 614007

8/22/79

ITEM #53

Fastener Description:

BOLT 1 1/8" - NCX 5 3/4"

Description of Sample Stock Location:

WB-01-AT HAEZ

Material Specification as Documented by Licensee Records:

SA 193 GR B7

Head Marking (Specification and Manufacturer): HT#

B7

TB

1A

\*\*Class/Procurement Level:

ASME III-2

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: CAPITOL PIPE

1501 S CLARKSON

77K53-821594

CHARLOTTE, NC 28233

QA Requirements Imposed on Vendor:

ASME III-2 CNTR

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B6996/

\*Sample ID# BLN-C9-N

75K35-86162

PURCHASE ORDER # 43810

ITEM # 15

Fastener Description:

NUT 1 1/8" - NC

Description of Sample Stock Location:

NB-08-AM HCHW

Material Specification as Documented by Licensee Records:

SA 194 GR 7 (AS SHOWN BY LEDGER)

Head Marking (Specification and Manufacturer): HT CODE [GRADE 7 & 2H NUTS  
2H T EN 19 [MIXED IN SAME CONTAINER]

\*\*Class/Procurement Level:

ASME III-2

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: NAVCO (SUPPLIER ACTUAL NUT PICKED FROM CONTAINER)  
158 49TH ST  
PITTSBURGH PA 15201

QA Requirements Imposed on Vendor:

CMTR PER ASME III-2

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6997/

\*Sample ID# BLN-C10-B

Fastener Description:

STUD 5/8" X 3 3/4"

Description of Sample Stock Location:

W6-01-GH HAWT

Material Specification as Documented by Licensee Records:

SA 193 GR B7

Head Marking (Specification and Manufacturer):

B7

T

\*\*Class/Procurement Level:

ASME III-2

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: CAPITOL PIPE

1501 S CLARKSON

CHARLOTTE NC 28233

82KA-829630-1

QA Requirements Imposed on Vendor:

CMT2 PER ASME III-2

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B699B/

\*Sample ID# BLN-C10-N

TRANSFER 787631

TICKET# G-217911

12/16/82

ITEM# 2

Fastener Description:

NUT 5/8"

Description of Sample Stock Location:

WB-01-GH HAWT (SUPPLIED WITH STUD# BLN-C10-B)

Material Specification as Documented by Licensee Records:

SA 194 GR 2H

Head Marking (Specification and Manufacturer):

2H

T

\*\*Class/Procurement Level:

ASME III-2

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY

Vendor: CAPITAL PIPE

1501 S CLARKSON

CHARLOTTE NC 28233

82KA-829630-1

QA Requirements Imposed on Vendor:

CNTR PER ASME III-2

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B6999/

\*Sample ID# BLN-C11-B

77K73-766120-2

7/19/76

ITEM # 20

Fastener Description:

BOLT 7/8"-NC x 4"

Description of Sample Stock Location:

WB-02-CM HBCS

Material Specification as Documented by Licensee Records:

A449

Head Marking (Specification and Manufacturer):

3 RAD LINES 120° AMRT NONE

\*\*Class/Procurement Level:

QL2 LOC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: SERVICE FASTENER

P.O BOX 732

INDIANAPOLIS, INDIANA 46206

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B7000/

\*Sample ID# BLN-C11-N

Fastener Description:

NUT 7/8"-NC

RD 635030

8/8/78

ITEM #15

Description of Sample Stock Location:

WB-D1-CQ HCEG

Material Specification as Documented by Licensee Records:

A563 ONLY SPECIFIED BY CONTRACT

Head Marking (Specification and Manufacturer):

3 CIRCUM LINES, 120° APART NONE

\*\*Class/Procurement Level:

QL 2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: WHITTAKER FASTENER  
17000 SOUTHFIELD ROAD  
ALLEN PARK MI 48101

77X74-543351

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B 7001/  
\*Sample ID# BLN-C12-B

Fastener Description:

BOLT 7/8"-NF X 2 1/2"

Description of Sample Stock Location:

WB-02-FM HBHC

Material Specification as Documented by Licensee Records:

A354 GR 8D

Head Marking (Specification and Manufacturer):

6 RAD LINES, 60° MARK NAT

\*\*Class/Procurement Level: Non QA

COC REQ'D. [NON QA PRINTOUT SHOWS QLZ, WHICH MAY BE CONFUSING]

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor:

SHARP AUTOMOTIVE SUPPLY CO

P.O. BOX 1717

CHATTANOOGA, TN 37401

QA Requirements Imposed on Vendor:

COC. [HOWEVER, BOUGHT AS CONSTRUCTION MATERIAL → NOT INSPECTED]

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

SAC CAP SCREWS

165-825

7/8" 2 1/2"

1040 STEEL FINE

DORMAN PRODUCTS INC

CINCINNATI, OHIO

RD 479635

ITEM # 57

1/30/75

Attachment 1

Fastener Testing Data Sheet

TVA B7002/

\*Sample ID# BLN-C12-N

RD# 568592

10/31/77

ITEM #20

Fastener Description:

NUT 7/8"-NF

Description of Sample Stock Location:

WB-01-EK HCMC

Material Specification as Documented by Licensee Records:

A194 GR 2H

Head Marking (Specification and Manufacturer):

NONE

NONE

[SHOULD BE  
MARKED]

\*\*Class/Procurement Level:

QL2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY & STRUCTURAL

Vendor: WHITTAKER FASTENER

17000 SOUTHFIELD RD

ALLEN PARK, MI 48101

77X74-543351

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B7003/

\*Sample ID# BLN-C13-B

Fastener Description:

BOLT 1/2" - NFX5"

RD 533709

1976

Description of Sample Stock Location:

WB-02-DL KEUG

ITEM# 46

Material Specification as Documented by Licensee Records:

A354 GR BA

Head Marking (Specification and Manufacturer):

6 RAD LINES, 60° APART A

\*\*Class/Procurement Level:

QLZ LOC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: DETROIT BOLT & NUT

17000 SOUTHFIELD RD

75X54-65570

ALLEN PARK, MI 48101

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/83

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B7004/

\*Sample ID# BLN-C13-N

79K74-775961-1

7/17/79

ITEM # 12

Fastener Description:

NUT 1/2"-NF

Description of Sample Stock Location:

WB-01-LJ HCME

Material Specification as Documented by Licensee Records:

A194 GR 2H

Head Marking (Specification and Manufacturer):

2H

T

\*\*Class/Procurement Level:

QL2 LOC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

PRESSURE BOUNDARY OR STRUCTURAL

Vendor: GENERAL FASTENERS

12000 GLOBE RD

LIVONIA, MI 48150

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B7005/  
\*Sample ID# BLN-C14-B

Fastener Description:

BOLT 3/4"-NC X 4"

RA 549459

10/21/76

ITEM #32

Description of Sample Stock Location:

SB-18-AL HANC

Material Specification as Documented by Licensee Records:

A307

Head Marking (Specification and Manufacturer):

NONE NONE

\*\*Class/Procurement Level:

QL 2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: DETROIT BOLT & NUT  
17000 SOUTHWFIELD RD  
ALLEN PARK, MI 48101

75X54-65570

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B7006/  
\*Sample ID# BLN-C14-N1 (REG HEX)

Fastener Description:

NUT 3/4"-NC

Description of Sample Stock Location:

WB-01-GL HCYL

Material Specification as Documented by Licensee Records:

A307

Head Marking (Specification and Manufacturer):

NONE

NONE

\*\*Class/Procurement Level:

QLZ COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: CHATTANOOGA BOLT & SCREW  
P.O. BOX 486

CHATTANOOGA, TN 37401

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B7007/  
\*Sample ID# BLN-C14-N2 (HVV HEX)

RD 595931

9/15/77

ITEM #5

Fastener Description:

NUT 3/4"-NC

Description of Sample Stock Location:

WB-01-GL HCYL

Material Specification as Documented by Licensee Records:

A307 AS SPECIFIED BY CONTRACT

Head Marking (Specification and Manufacturer):

3 CIRCULAR LINES 120° AMAT NONE

[VENDOR SUPPLIED A  
BETTER GRADE OF NUT]

\*\*Class/Procurement Level:

QL 2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: WHITTAKER FASTENER

17000 SOUTHFIELD RD

ALLEN PARK, MI 48101

77X 74-543351

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.

Attachment 1

Fastener Testing Data Sheet

TVA B700B/

\*Sample ID# BLN-CIS-B

81KK2-786263

11/19/80

ITEM #2

Fastener Description:

BOLT 1/2"-NC X 8"

Description of Sample Stock Location:

WA-27-AG HKBF

Material Specification as Documented by Licensee Records:

A 307

Head Marking (Specification and Manufacturer):

NINE

V

\*\*Class/Procurement Level:

QL2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor: BOLTS & NUTS INC, CHATTANOOGA  
P.O. Box 1927  
CHATTANOOGA, TN 37407

QA Requirements Imposed on Vendor:

✓COC

Licensee Representative: RICH POLEHN

Signature Richard Polehn

Date 1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.



Attachment 1

Fastener Testing Data Sheet

TVA B7009/  
\*Sample ID# BLN-CIS-N

84K71-792795

Fastener Description:

NUT 1/2"-NC

11/2/84

ITEM#12

Description of Sample Stock Location:

WB-02-GB HCYI

Material Specification as Documented by Licensee Records:

A307

Head Marking (Specification and Manufacturer):

NONE

ELS

\*\*Class/Procurement Level:

QL2 COC REQ'D

General Plant Application (e.g., Pressure Boundary, Structural)

STRUCTURAL

Vendor:

SOUTHEASTERN BOLT & SCREW  
P.O. BOX 486  
CHATTANOOGA, TN 37401

QA Requirements Imposed on Vendor:

COC

Licensee Representative: RICH POLEHN

Signature

Richard Polehn

Date

1/22/88

\*The sample ID# shall have a prefix that contains the licensee facility initials.

\*\*If applicable, please provide an explanation for your classification system.