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

NRC INSPECTION MANUAL

TEMPORARY INSTRUCTION 2500/27

INSPECTION REQUIREMENTS FOR NRC COMPLIANCE BULLETIN 87-02, "FASTENER TESTING TO DETERMINE CONFORMANCE WITH APPLICABLE MATERIAL SPECIFICATIONS"

2500/27-01 PURPOSE

To provide guidance in evaluating the adequacy of certain licensees' root cause analyses and the implementation of corrective actions in response to NRC Bulletin 87-02.

2500/27-02 OBJECTIVE

To verify that licensees ensure that fasteners used in licensed nuclear plants meet the requisite specifications and that operability of safety-related components is not affected.

2500/27-03 BACKGROUND

NRC Bulletin 87-02 requested licensees to test safety-related (SR) and nonsafety-related (NSR) fasteners. Supplements 1 and 2 to the Bulletin requested licensees to provide a list of the suppliers and/or manufacturers from whom the fasteners may have been purchased.

Temporary Instruction 2500/26 (deleted by CN 89-004) required an NRC inspector to participate in the licensee's selection of fasteners to be tested to assure that they were representative of installed fasteners.

2500/27-04 INSPECTION REQUIREMENTS

This TI applies to 54 sites, and different sections of the TI apply to different plants. Attachment 1 lists which TI sections apply to which plants. No action is required for plants not listed in attachment 1.

04.01 Assure that adequate root cause analysis and corrective action has been taken by licensees for the significantly out of specification SR fasteners identified in Attachment 2.

Assess the adequacy of the licensee's effort to identify all possible locations where the fasteners may have been used and show that all applications are acceptable and appropriate disposition has been implemented where needed to either "use-as-is," or replace.

04.02 Assess the adequacy of root cause analysis and corrective actions taken by licensees which experienced high test failure rates (20 percent or greater) for SR or NSR fasteners, particularly for cases which appear to involve inadequate material control. The licensee's analysis should address why the internal QA/QC activities did not discover the problem. A list of plants with high test failure rates can be found in Attachment 3.

04.03 Assure that appropriate corrective action regarding potential use in SR applications has been taken by licensees for the following NSR nonconforming SAE J429 Grade 8 fasteners:

Plant	Sample No.
Big Rock Pt.	BRP-24
Catawba	CATNS20
Fitzpatrick	JAF-42
Sequoyah	TVA-S5312/5314
St. Lucie	30-02615-6

The substandard results for these fasteners may be indicative of product substitution or counterfeiting; i.e., intentional mismarking of Grade 8.2 as Grade 8 bolts. (Reference IE Information Notice 86-25, Supplement 1 which describes "counterfeit fasteners.")

04.04 Assure that appropriate corrective action regarding the potential use of fasteners has been taken by licensees for the following SR and NSR nonconforming SAE 429 Grade 5 fasteners:

Plant	Sample No.
Browns Ferry	BNF-11/12
Davis-Besse	DB-15A/B
Diablo Canyon	DC-193435
Duane Arnold	DAEC-Y-22
Ft. Calhoun	FC-6A/7A/8A/9A
Kewaunee	KNP-2-7F
Limerick	LGS1-7-QB
McGuire	MNS19/20/21
Prairie Island	PIB1/3
St. Lucie	29-98300-2
Watts Bar	WB-7999/8002

The substandard results for these fasteners may be indicative of product substitution or counterfeiting; i.e., intentional mismarking of Grade 5.2s as Grade 5s.

The issue here is similar to the SAE J429 Grade 8 vs. 8.2 concerns. Grade 5 fasteners are medium carbon steel, quenched and tempered. Carbon content in Grade 5 should be 0.28-0.55 weight percent, with no specification for boron. Grade 5.2 fasteners are low carbon martensite steel, fully killed, fine grained, quenched and tempered. Carbon content in Grade 5.2 should be 0.15-0.25 weight percent with a minimum of 0.0005 weight percent boron. Both grades are heat treated, oil or water quenched and tempered at minimum temperature of 800°F. Mechanical properties are essentially identical.

04.05 In reviewing the responses to Bulletin 87-02, it was determined that not all licensees had tested the requested number of SR and NSR fasteners. In order to bring the number tested to a minimum of 20 SR and a total of 40, the following plants should be notified that they have not satisfied the sample testing requested by the Bulletin. The licensee should be asked what action is planned to sample and test additional fasteners and report those results to the NRC.

Plant Name	Number Tested SR	NSR
Braidwood	18	11
Byron	19	21
Callaway	12	7
Calvert Cliffs	19	20
Cook	18	33
Harris	27	11
Indian Pt. 3	20	19
LaSalle	13	22
Monticello	18	22
Prairie Island	18	18
Summer	18	13

NRC inspectors should follow the requirements stated in TI 2500/26 for observation of licensee selection of fasteners to be tested.

04.06 Assess the adequacy of root cause analysis and corrective action regarding potential use taken by licensees for the significantly out of specification NSR fasteners listed in Attachment 4.

2500/27-05 GUIDANCE

05.01 Responses to Bulletin 87-02 indicated that several licensees have discovered fasteners that are significantly out of specification and/or have high failure rates. It is incumbent upon these licensees to determine the cause of the substandard fasteners. The root cause analysis should determine if the acceptance and use of the substandard fasteners can be attributed to a failure of the licensee's QA program, failure of the supplier's QA program, or deliberate product substitution by the vendor. The analysis should also consider why the licensee's QA program failed to identify the problem.

05.02 Installed fasteners from tested heats or purchase order lots should meet the required specifications. If the specifications are not met, a detailed analysis for use of the fastener in the specific application used or intended must be performed. The analysis should address the specific deficiency of the fastener and why the fastener will be able to perform its function with that deficiency. If the fasteners are for use in an ASME Code, Section III application, the licensee must apply for and receive relief from Code requirements from the NRC. Examine a representative sample of the analyses performed to determine the adequacy of the licensee's action.

2500/27-06 REPORTING REQUIREMENTS

06.01 The inspection effort shall be documented in a routine inspection report. Copies of the inspection report should be sent to Ed Baker OWFN, 9D4, NRR.

06.02 When inspection activities required by this TI are completed, enter the status of these activities in the SIMS data system. The SIMS issue number for this TI is BL-87-02.

2500/27-07

The activities required by this TI shall be completed by January 31, 1990.

2500/27-08

This TI shall remain in effect until June 1, 1990.

2500/27-09 CONTACTS

Questions concerning this TI should be addressed to Edward Baker, NRR at (301) 492-0959 or Greg Cwalina (301) 492-3221.

The Lead Project Manager for this TI is Thierry Ross.

2500/27-10 STATISTICAL DATA REPORTING

Record actual inspection effort to this TI against Module Number 25027 (766 System) and 2500/27 (RITS).

2500/27-11 ORIGINATING ORGANIZATION INFORMATION

11.01 The Vendor Inspection Branch of NRR initiated this TI.

11.02 It is estimated that direct inspection effort will range between 1 and 14 hours to complete the requirements for each of the affected sites (estimated as follows:

TI Paragraph	Hours
04.01	2
04.02	5
04.03	3
04.04	4
04.05	1
04.06	4

The total estimated time to complete the inspection for all 54 sites is 317 hours (0.15 FTE).

2500/27-12 REFERENCES

NRC Bulletin 87-01, "Fastener Testing to Determine Conformance with Applicable Material Specification."

NRC Inspection Procedure 92701, "Follow-up Testing to Determine Conformance with Applicable Material Specification" dated April 5, 1988.

IE Information Notice 86-25, Supplement 1, "Traceability and Material Control of Material and Equipment, Particularly Fasteners."

END

Attachments:

1. Plants Covered By TI 2500/27
2. Safety Related Fasteners with Sunstantial Deviations Warranting Licensee Action
3. Summary of Fastener Testing Data
4. Nonsafety Related Fasteners with Substantial Deviations Warranting Licensee Action
5. Other Fasteners with Substantial Deviations from Required Specifications
6. Estimate Site Inspection Resources Required

ATTACHMENT 1

Plants Covered by This TI

PLANT	TI PARAGRAPH(S)
Region I	
Beaver Valley	01,06
Calvert Cliffs	01,05
Fitzpatrick	03,06
Ginna	01,06
Indian Point 3	05,06
Limerick	01,04,06
Maine Yankee	01,02
Nine Mile Point	01,02,06
Oyster Creek	01,06
Peach Bottom	01,02,06
Pilgrim	02
Salem	02,06
Shoreham	02,06
Vermont Yankee	01,02,06
Region II	
Bellefonte	01
Browns Ferry	04
Brunswick	01
Catawba	03
Crystal River	01
Farley	01
Grand Gulf	06
Harris	01,05
McGuire 1	02,04,06
North Anna	01
Robinson	01
Sequoyah	01,03
St. Lucie	03,04,06
Summer	02,05,06
Surry	01
Vogtle	06
Watts Bar	01,04
Region III	
Big Rock Point	01,02,03
Braidwood	05
Byron	05
Callaway	02,05,06
Clinton	01
Cook	05,06
Davis-Besse	01,04,06
Duane Arnold	04

Plants Covered by This TI

PLANT	TI PARAGRAPH(S)
Region III(cont.)	
Fermi	06
Kewaunee	04
LaSalle	02,05,06
Monticello	05
Palisades	01
Prairie Island	02,04,05,06
Point Beach	06
Quad Cities	06
Region IV	
Comanche Peak	02
Ft. Calhoun	01,02,04
River Bend	01
Region V	
Trojan	01,02,06
Rancho Seco	02,06
Diablo Canyon 1	01,04
WPPSS	06

ATTACHMENT 2

SAFETY-RELATED FASTENERS WITH SUBSTANTIAL DEVIATIONS
WARRANTING FOLLOW-UP ACTION

PLANT NAME	SAMPLE NO.	DESCRIPTION
Beaver Valley	BV1-12	ASTM A194 G2H 5/8 HEX NUT
Bellefonte	BLN-6996	ASME SA194 GR2H 1 1/8-7 NUT
Big Rock Pt.	BRP-39	ASTM A194 GR2H 1 1/8 NUT
Brunswick	BSO7 STU	ASTM SA193 GRB8 STUD
Calvert Cliffs	CCNPP-I(F)	ASME SA193 GRB6 3/4 X 6' STUD
	CCNPP-I(N)	ASME SA194 GR6F 3/4 HEX NUT
Clinton	CPS-18A	ASME SA320 GRL7 3/4-10 X 3 CAPSCREW
Crystal River	CR3-4	ASTM A325 TP3 3/4-10 X 2 1/2 HH BOLT
	CR3-29	ASTM A307 GRA 1/2-13 X 2 1/2 SOCKET HCS
Davis-Besse	DB-17A	ASME SA194 GR2H 1/4-20 NUT
	DB-17B	ASME SA194 GR2H 1/4-20 NUT
Diablo Canyon	DC-938186	ASME SA194 GR7 1 1/8-7 HH NUT
Farley	SO-23	ASTM A193 GRB8 5/8-11 X 2 3/4 BOLT
Fort Calhoun	FC-C4B	ASTM A194 GR2H 3/4 HH NUT
	FC-C9B	ASTM A194 GR2H 5/8 HH NUT
Ginna	RGE-36	ASTM A194 GR2H NUT
Harris	HNP-8	ASME SA193 GRB8M BOLT
	HNP-25	ASME SA193 GRB8 BOLT
Limerick	LGS1-4-QS	ASTM A193 GRB7 3/4 X 4 1/4 STUD
	LGS1-8-QS	ASTM A193 GRB7 1 X 5 STUD
	LGS1-10-QN	ASTM A194 GR8M 5/8 NUT
	LGS2-03	ASME SA193 GRB7 1 X 5 STUD
	LGS2-03E	ASME SA193 GRB7 1 X 5 STUD
Maine Yankee	MY-S-01	ASME SA193 GRB8M 5/8-11 X 5 STUD
	MY-S-02	ASME SA193 GRB8M 3/4-10 X 1 3/4 BOLT
	MY-S-03	ASTM A193 GRB8 5/8-11 X 2 3/4 STUD
	MY-S-09N	ASTM A194 GR8MA 1/2-13 NUT
	MY-S-01N	ASTM A194 GR8MA 5/8-11 NUT
Nine Mile Pt.	NM-70-7-2	ASTM A193 GRB8 1 X 4 STUD
	NM-70-10	ASTM A193 GRB8M 1/4 HH CAPSCREW
	NMP-2-15	ASTM A193 GRB8 1/4 HH CAPSCREW

SAFETY-RELATED FASTENERS WITH SUBSTANTIAL DEVIATIONS
WARRANTING FOLLOW-UP ACTION

PLANT NAME	SAMPLE NO.	DESCRIPTION
North Anna	NPF4-AB	ASTM A193 GRB7 1/2-13 X 5 STUD
	NPF4-AE	ASTM A193 GRB7 5/8-11 X 5 STUD
	NPF4-AO	ASTM A193 GRB8M 1/2-20 X 12' STUD
	NPF4-AP	ASTM A193 GRB8M 5/8-11 X 12' STUD
Oyster Creek	OC-002	ASTM A193 GRB8M 5/16-18 X 2 HH CAPSCREW
Palisades	PAL-10	ASTM A453 GR660 1/2 X 2 1/4 STUD
Peach Bottom	PB-10	ASTN A194 GR6 7/9-9 NUT
River Bend	RBS-12N-X	ASTM A194 GR2H 3/4-10 HH NUT
	RBS-16N-X	ASTM A563 GRDH 1 1/4-8 HH NUT
Robinson	RNP-006	ASME SA193 GRB8 CAPSCREW
Sequoyah	TVA-S5321	ASTM A193 GRB8M 1/2-13 X 4 BOLT
Surry	DPR-CD	ASTM F593 ALLOY GP1 1-8 X 2 HH CAPSCREW
	DPR-DJ	ASTM A193 GRB8M 1-8 X 12' STUD
	DPR-DN	ASTM A193 GRB7 1/2-13 X 4 1/2 HH CAPSCREW
Trojan	TNP-33	ASTM A193 GRB7 3/4-10 X 7 1/2 STUD
Vermont Yankee	VY-2	SAE J429 GR1 7/8-9 X 2 3/4 MACHINE BOLT
Watts Bar	WB-7946	ASME SA193 GRB7 1/2-13 X 2.75 STUD
	WB-7947	ASME SA194 GR7 1/2-13 NUT
	WB-8004	ASTM A193 GRB7 3/4-10 X 3 3/4 HH BOLT

ATTACHMENT 3

SUMMARY OF FASTENER TESTING DATA

PLANT	TESTED SR : N	FAILED SR : N	%FAILURES SR : N
Arkansas	20 : 20	0 : 0	0 : 0
Beaver Valley	69 : 13	2(C): 2	3 : 15
Bellefonte	40 : 1	3(C): 0	8 : 0
Big Rock Pt.	27 : 17	2(C)2(H): 5	15 : 29
Braidwood	18 : 11	0 : 0	0 : 0
Browns Ferry	48 : 8	2(C)1(M): 0	6 : 0
Brunswick	29 : 22	1(C): 4	3 : 18
Byron	19 : 21	0 : 0	0 : 0
Callaway	12 : 7	1(M): 3	8 : 43
Calvert Cliffs	19 : 20	1(C)1(M)1(H): 3	16 : 15
Catawba	20 : 20	0: 2	0 : 10
Clinton	31 : 9	1(H)2(M): 0	10 : 0
Comanche Peak	33 : 20	2(M): 5	12 : 25
Cook	18 : 33	0 : 1	0 : 3
Cooper	20 : 20	0 : 0	0 : 0
Crystal River	20 : 20	1(M)2(H): 1	15 : 5
Davis-Besse	22 : 29	2(H): 4	9 : 14
Diablo Canyon	67 : 25	1(C)3(M)1(H): 3	7 : 12
Dresden	22 : 20	2(C)1(M): 0	14 : 0
Duane Arnold	24 : 20	1(H): 3	4 : 15
Farley	24 : 20	4(C)1(H): 0	17 : 0
Fermi	20 : 20	0 : 2	0 : 10
Fitzpatrick	24 : 24	0 : 3	0 : 12
Fort Calhoun	20 : 20	1(C)1(H): 4	10 : 20
Ft. St. Vrain	20 : 20	0 : 1	0 : 5
Ginna	40 : 40	3(C)2(M)1(H): 4	15 : 10
Grand Gulf	44 : 40	1(M): 2	2 : 5
Haddam Neck	20 : 20	0: 0	0 : 0
Harris	27 : 11	2(H): 0	7 : 0
Hatch	20 : 20	0 : 0	0 : 0
Hope Creek (See Salem)			
Indian Point 2	43 : 18	2(M): 2	5 : 11
Indian Point 3	20 : 19	0: 2	0 : 11
Kewaunee	20 : 20	1(M): 1	5 : 5
LaSalle	13 : 22	1(C)3(H): 2	31 : 9
Limerick	42 : 46	6(M)1(H)1(C): 4	19 : 9
Maine Yankee	20 : 20	3(C)3(H): 1	30 : 5
McGuire	20 : 21	0: 6	0 : 29
Millstone	20 : 20	1(C)1(M): 1	10 : 5
Monticello	18 : 22	1(C)1(M): 3	11 : 14
Nine Mile Pt.	40 : 40	6(M)2(C)1(H):12	23 : 28
North Anna	41 : --	7(M):--	17 : --
Oconee	20 : 20	0: 0	0 : 0
Oyster Creek	20 : 21	1(H): 4	5 : 19
Palisades	42 : 48	1(H): 2	2 : 4

ATTACHMENT 3 (CONT.)

PLANT	TESTED SR : N	FAILED SR : N	%FAILURES SR : N
Palo Verde	22 : 23	1(H): 1	4 : 4
Peach Bottom	22 : 21	1(H)1(M): 5	9 : 24
Perry	20 : 20	2(H): 3	10 : 15
Pilgrim	35 : 29	3(H): 6	8 : 21
Point Beach	20 : 20	2(C)1(M): 1	15 : 5
Prairie Island	18 : 18	0 : 4	0 : 22
Quad Cities	20 : 20	2(C): 1	10 : 5
Rancho Seco	30 : 15	1(M): 3	3 : 20
River Bend	42 : 3	2(C)3(M)2(H): 0	17 : 0
Robinson	35 : 19	1(M)1(H)1(C): 0	6 : 0
Salem	20 : 20	2(H): 4	10 : 20
San Onofre	41 : 36	1(H): 3	2 : 8
Seabrook	20 : 20	1(H): 0	5 : 0
Sequoyah	20 : 20	1(C)2(H): 2	15 : 10
Shoreham	20 : 20	2(M): 5	10 : 25
South Texas	40 : 12	3(C)1(M): 0	10 : 0
St. Lucie	21 : 36	1(H)1(C)1(M): 4	14 : 11
Summer	18 : 13	2(C)1(H): 4	17 : 31
Surry	51 : --	4(M)2(C)1(H):--	14 : --
Susquehanna	20 : 20	1(M)1(C): 1	10 : 5
Three Mile Island	28 : 16	1(M): 1	4 : 6
Trojan	20 : 20	1(M): 6	5 : 30
Turkey Point	22 : 20	1(M): 0	9 : 0
Vermont Yankee	21 : 20	8(C)2(M): 3	48 : 15
Vogtle	69 : 18	1(M): 1	1 : 6
Waterford	100 : 40	5(C)1(H): 1	6 : 3
Watts Bar	71 : 1	9(C)2(M): 0	15 : 0
Wolf Creek	20 : 20	0 : 0	0 : 0
WPPSS	20 : 20	0 : 1	0 : 5
Yankee Rowe	30 : 10	1(C): 1	3 : 10
Zion	22 : 36	0 : 0	0 : 0
TOTAL --	2238 : 1469	180:153	8 : 10

SR - Safety-related
N - Nonsafety-related

SR Failures --
Hardness (H) - 45 (25%)
Mechanical (M) - 63 (35%)
Chemistry (C) - 72 (40%)

NOTE: Many fasteners failed specifications in more that one category. These fasteners are counted only once in this table in the category of primary failure.

ATTACHMENT 4

NONSAFETY RELATED FASTENERS WITH SUBSTANTIAL DEVIATIONS
WARRANTING FOLLOW-UP ACTION

PLANT NAME	SAMPLE NO.	DESCRIPTION
Beaver Valley	BV1-26B	ASTM A194 GR2H 1 NUT
Callaway	CAT660368A	ASTM A194 GR2H 5/16-18 NUT
	CAT660368B	ASTM A194 GR2H 5/16-18 NUT
	CAT660368C	ASTM A194 GR2H 5/16-18 NUT
Cook	31-772250	ASTM A193 GRB7 1/2 X 2 STUD
Davis-Besse	DB-28	SAE J995C 1 1/4 NUT
Fermi	DENB-9	SAE J429 GR2 3/8-24 X 2 BOLT
Fitzpatrick	JAF-14	ASTM A307 GRB 5/8 X 7 1/2 BOLT
	JAF-17	ASTM A193 GRB8 3/4 X 3 STUD
Ginna	RGE-52	ASTM A307 GRA 3/4-10 X 2 BOLT
	RGE-53	ASTM A325 TP1 1/2 X 1 3/4 BOLT
	RGE-60	ASTM A193 GRB8 1/2 X 2 3/4 STUD
Grand Gulf	GG2-A1A	ASTM A194 GR2H 3/4 HH NUT
	GG2-A1B	ASTM A194 GR2H 3/4 HH NUT
Indian Pt. 3	3IP23	ASTM A194 GR2H 3/4 NUT
	31P27	ASTM A194 GR2H 3/4 NUT
LaSalle	L-17-NC	ASTM A194 GR2H 3/8-16 NUT
Limerick	LGS2-27	ASTM A194 GR2H 1/2 NUT
McGuire	MNS32	SAE J995 GR8 3/4-10 NUT
	MNS33	ASTM A194 GR8M 1/2-13 NUT
Nine Mile Pt.	NM-63-2	ASTM A193 GRB6 1/2 SOCKET HD CAPSCREW
	NMP-2-20	ASTM A193 GRB7 1/2 HH SCREW
	NMP-2-25	ASTM A307 GRB 1 3/4 HH SCREW
	NMP-2-31-1	ASTM A194 GR6 5/8 HH NUT
	NMP-2-31-2	ASTM A194 GR6 5/8 HH NUT
	NMP-2-34	ASTM A193 GRB6 3/4 X 5 STUD
Oyster Creek	OC-021	ASTM A193 GRB8 1/2-13 X 2 1/2 HH CAPSCREW
	OC-023	ASTM A193 GRB8 1/2-13 X 1 1/4 HH CAPSCREW
	OC-038	ASTM A194 GR2H 5/8-11 NUT
Peach Bottom	PB-26	ASTM A193 GRB16 5/8-11 STUD
	PB-38	ASTM A193 GRB8 9/16-12 X 3 3/4 SCREW
	PB-39	ASTM A193 GRB8 9/16-12 X 5 SCREW
	PB-40	ASTM A194 GR2 5/8-11 NUT
	PB-41	ASTM A194 GR2 5/8-11 NUT

NONSAFETY RELATED FASTENERS WITH SUBSTANTIAL DEVIATIONS
WARRANTING FOLLOW-UP ACTION

PLANT NAME	SAMPLE NO.	DESCRIPTION
Point Beach	PB-F2	ASTM A193 GRB7 7/16-14 X 4 3/4 HHH BOLT
Prairie Island	PIB3	SAE J429 GR5 1 1/2-6 X 6 1/2 BOLT
Quad Cities	QN-4-CS	ASTM A193 GRB7 1/2-13 X 1 1/2 CAPSCREW
Rancho Seco	RS-1-NQ	ASTM A193 GRB7 5/8 X 2 3/4 HH BOLT
	RS-27B-NQ	ASTM A194 GR8 1/2-13 NUT
Salem	SA-12N	ASTM A194 GR2H 7/8-9 NUT
	SA-13N	ASTM A194 GR2H 1-8 NUT
	SA-14N	ASTM A194 GR2H 1-8 NUT
	SA-19B	ASTM A193 GRB8 3/8-18 X 3/4 BOLT
Shoreham	SNPS 3	ASME SA193 GRB7 1 X 5 3/4 STUD
St. Lucie	31-24600-1	ASTM A276 (TP316) 1/2-13 X 3 HH CAPSCREW
Summer	VCS-T	ASTN A574 3/4 X 3 SOCKET HEAD CAPSCREW
Trojan	TNP-7R	ASTM A194 GR8M 3/4 NUT
	TNP-21	ASME SA193 GRB16 7/8-9 X 5 STUD
	TNP-24	ASTM A193 GRB8M 5/16-18 X 1 1/2 BOLT
	TNP-25	ASTM A193 GRB8M 1/2-20 X 4 BOLT
Vermont Yankee	VY-27	ASTM A193 GRB8M 1/2-13 X 2 BOLT
	VY-29	SAE J429 GR5 3/8-24 X 1 1/4 BOLT
Vogtle	VEGP-29	ASTM A193 GRB16 5/8-11 X 2 1/2 STUD
WPPSS	WN2-B2D	ASTM A193 GRB8 7/8 X 6 STUD

SUBJECT: Evaluation of Licensee's Response to the Testing of Safety Related and Nonsafety-Related Fasteners

TYPE: TI is proposed in order to guide Regions in assessing the licensee's response to NRC Bulletin 87-02.

RESPONSIBLE OFFICE: NRR/DRIS/RVIB
Technical contacts: Edward Baker
Greg Cwalina

ESTIMATE SITE INSPECTION RESOURCES REQUIRED:

TYPE	HOURS
Residence/Regional Office	1 - 14 hours/plant

Inspections needed at plants identified in Attachment 1.

SCHEDULE FOR ISSUANCE: May 1, 1989

CURRENT INSPECTION DOCUMENTS THAT MAY BE AFFECTED:
None.