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January 12, 1988

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Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW
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Subject: Duke Power Company
Oconee Nuclear Station
Docket Nos. 50-269, - 270, - 287

McGuire Nuclear Station
Docket Nos. 50-369, -370

Catawba Nuclear Station
Docket Nos. 50-413, -414
Response to NRC Compliance
Bulletin No. 87-02

Attached is a partial Duke Power response to NRC Compliance Bulletin No. 87-02, "Fastener Testing to Determine Conformance with Applicable Material Specifications." Included as attachments to this letter is the following information required by the bulletin.

Attachment A	Description of the Duke Power Procurement and Receipt Inspection Program for Fasteners
Attachment B	Description of the Duke Power Controls Used During Storage and Issuance From Stock to Assure the Appropriate Use of Fasteners
Attachment C	Method for Choosing the Fasteners to be Tested
Attachment D	Status and Schedule of the Evaluation of Fastener Testing Results

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At this time, we are unable to submit the test results and the evaluation thereof. This is because 1) we were unable to complete the overall workload required by this bulletin within the 60-day time allotment; 2) the time required to interface with vendor testing laboratories; and 3) the performance of Charpy Impact Testing on some samples. This latter item, although not specifically required by Compliance Bulletin 87-02, was requested by the NRC Resident Inspectors based upon interpretation of the NRC Temporary Instruction 2500/26 covering the bulletin.

Presently we have completed the mechanical and chemical testing of all samples (except the additional impact testing of the required samples). The status and schedule of the evaluation of the test results is detailed in Attachment D.

I declare under penalty of perjury that the statements set forth herein are true and correct to the best of my knowledge.

Very truly yours,

Hal B. Tucker

HBT/JSW/lcc

Original Letter and Copy of Attachments:

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

xc: (w/Attachments):

NRC Resident Inspector
Oconee Nuclear Station

NRC Resident Inspector
McGuire Nuclear Station

NRC Resident Inspection
Catawba Nuclear Station

Attachment A

Duke Power Company
Response to NRC Compliance Bulletin 87-02
"Description of the Duke Power Procurement
and Receipt Inspection Program for Fasteners"

INTRODUCTION

The Quality Assurance Procurement Program is based on the following:

a) Review of requisitions and purchase orders by QA personnel
b) QA Vendor audits and surveillances of suppliers
c) Duke QA releases required prior to shipment
d) Review of vendor documentation by QA Vendors
e) Receiving inspection by site QA

QA REVIEW OF REQUISITIONS AND PURCHASE ORDERS

All QA Condition purchase orders and requisitions are reviewed by Quality Assurance personnel to assure the appropriate documentation requirements are specified on the purchase orders.

QA VENDOR AUDITS AND SURVEILLANCES

During audit/surveillance activities, Duke representatives verify that the vendor has applied applicable sections of their approved quality program to the materials being purchased. examples of audit and surveillance activities are:

a) Reviewing Certified Material Test Reports (CMTR's); comparison to ASME Code Section II requirements as applicable.
b) Reviewing heat treat records.
c) Performing dimensional verification.
d) Reviewing audit reports, inspection reports, Nondestructive Examination (NDE) reports, equipment calibration records, and employee qualifications and certification records.
e) Verifying proper markings.
f) Reviewing the vendor's purchase documents.
g) Verifying that stock materials used were from approved source or (when applicable) properly qualified (eg., NCA-3867.4e).
h) Verifying acceptance of physical properties such as hardness, tensile, yield, and impact through document review.
i) Witnessing manufacturing and testing processes.

QA RELEASE BY QA VENDORS

In addition to subject audits and surveillances, the vendor is required by each safety related purchase order to receive a Duke QA release prior to shipment, except as exempted per procedure. When notified by the vendor that an item is ready for shipment, QA Vendors schedules a visit to the vendor or grants a telephone release. We perform surveillances for approximately 10% of the purchase orders. For the other 90%, QA Vendors perform telephone communications to obtain the sufficient information to grant releases. The QA Vendors Division documents their release on Form QA-605, "QA Vendors Release". Verification of proper marking, proper documentation, and material manufacturer would be addressed as a minimum.

QA REVIEW OF VENDOR DOCUMENTATION

Vendor documentation is forwarded to Duke's QA Vendor Division Documentation Section for review. If found acceptable, documentation is approved and forwarded to applicable stations (approval is required and forwarded to applicable stations use). The applicable site is notified if problems are noted and material is placed in "HOLD" statues pending satisfactory resolution. During the review, the following areas are verified:

a) Comparisons to purchase order.
b) Chemical and physical properties reported are compared with applicable material specifications.
c) Assure applicable ASME Code requirements have been included in the certification.
d) Necessary historical and added testing data are included in the documentation package for material qualified per NCA-3867.4(e).
e) Verify that the material supplier is an approved vendor.

QA RECEIVING INSPECTION

The receiving inspections at Duke's Nuclear sites are performed to ensure conformance of material to the purchase order. The QA procedure used for receipt at the site requires the material to be visually examined to assure identification and markings are in accordance with the purchase orders, standards and the vendor documentation.

QA RECEIVING INSPECTION CONTINUED:

All QA Condition materials are identified with an unique QA Tag Number in addition to the assigned company number (i.e., MMIS Number). The QA Tag Number is specified to a given purchase order and a single line on that purchase order. This tag is either attached to the item)s itself or on the packages(s) or container(s). Some items transferred from a Construction Program may not be traceable to purchase orders. In those cases sufficient documentation shall be specified to establish the acceptability of the item.

Duke Power Company
Response to NRC Compliance Bulletin 87-02
"Description of the Duke Power Controls Used During
Storage and Issuance From Stock to Assure the
Appropriate Use of Fastener"

All fasteners are stored in accordance with the requirements of ANSI N45.2.2 Level B or C. Procedures in each station's materials manual describe the controls applied for the handling and storage of items (not just fasteners). Stock fasteners are assigned a company number which facilitates in the retrieval of procurement information in addition to being used in the control of inventories and other company business needs. Non-stock fasteners are not identified by a company number since, in most situations, they are fasteners that are not common to other uses or applications.

Fasteners are identified for use normally in one of two ways. First, the Duke Design Engineering Department's piping installation specification (covering flange connections, etc.), hanger installation specification, and various electrical installation specifications are all used in identifying a need for fasteners. The second and most often used method is through each equipment specification and associated instruction manuals, maintenance manuals, and equipment drawings which have bills of material. The majority of fasteners in this category would be identified by a manufacturer's part number or by some relationship to the equipment. Much of the information from these documents can be found on data bases. After selection for procurement through one of the methods above, the fastener would be stored and identified as described previously.

In addition to the assigned company number, all stock and non-stock QA fasteners are assigned a unique QA tag number. This number is unique to a specific line item on a specific purchase order. For safety-related fasteners, the QA tag number facilitates traceability to the installed location required by 10 CFR 50 Appendix B. The issuance of QA fasteners is controlled by procedures found in each station's materials manual. These fasteners are issued to a work request, which is the Duke administrative program used to control maintenance work activities at each station, that identifies and captures all pertinent data such as company and QA tag number, quantities, procedures utilized, and other descriptive information. Although non-QA fasteners are not required to be issued to a work request, in many cases they will be included since the equipment they are used on is safety-related. Their actual function in those cases, however is not considered safety-related. If fasteners have not been adequately identified on design documents or data bases and there is a question concerning the proper fastener, it is the responsibility of the site engineering section to provide (with the help of Design Engineering if needed) the maintenance technician with the correct fastener for that particular application.

Duke Power Company Response to NRC Bulletin 87-02

Method for Choosing the Fasteners to be Tested.

The selection process began by listing all: 1. Bolts 2. Screws 3. Studs 4. Capscrews and 5. Nuts described in the MMIS (Materials Management Information System) computer data files for each station.

The following factors were used in the selection of test samples.

1. Fasteners listed as standard issue fasteners, not necessarily listed as a part for a specific component, were chosen. In a few cases (especially Oconee), there was not a suitably large selection of general issue fasteners and so the list was supplemented by equipment vendor supplied fasteners.

2. Fasteners that represented an assortment of different materials were chosen. For a reasonable number of fasteners, the description listed the material type.

3. Fasteners that represented an assortment of manufacturers and suppliers were chosen. The MMIS list had very little information on manufacturers and suppliers but the samples chosen took this requirement into account as much as possible.

4. If tensile tests were required (such as safety related bolts), fasteners had to be at least 4 inches long and, if possible, with either 3/8-16 or 3/4-10 threads to accommodate tensile specimen fabrication. To support chemical analysis, the fasteners were at least 3/8 inch nominal size. In some cases, samples were slightly smaller than this. To assure their representation, some safety related fasteners shorter than 4 inches were added to the Non-Safety list. (Testing under bulletin 87-02 is identical for QA and non-QA bolts except for tensile testing.)

A list of forty fasteners was made for each station and presented to each station's NRC resident inspector as a draft from which to begin. The MMIS numbers that begin with "1007", the Construction Department numbering method, are coded for the piping class they are to be used on. For safety related fasteners the last alpha character is either A, B, or C. The eight or nine digit numbers, Nuclear Production Department numbering method, are safety related if they end with an "N". Non safety related fastener lists contain a number of safety related fasteners because of the reason stated in paragraph 4. above and because general purpose fasteners are often purchased as safety related to allow a greater versatility of application. Some minor discrepancies were found in the nomenclature of MMIS descriptions. A final list of fasteners from each station is attached.

McGuire Fastener Sampling

On November 25, 1987 Bill Orders, NRC Resident Inspector for McGuire, reviewed the list of fasteners and performed an inspection of the fasteners in stock.

The NRC Temporary Instructions concerning this bulletin recommended fasteners be added if they had one of nine manufacturer codes or no code. Four examples of this were found and two of them were exchanged with others on the list. Also found during the inspection was threaded rod which is often issued for making studs. A sample of this was added also. Mr. Orders then reviewed the diversity of materials and manufacturers and agreed that the adjusted sample selection was acceptable. Six samples were replaced on December 2, 1987 because the samples originally chosen were out of stock or deleted from stock. A letter was written to document this adjustment to the list. Other minor list adjustments were made after verbal confirmation with Bill Orders.

For MMIS sequence number 0253580, Sample Numbers MNS/NQ/SCRW/15 and 16, two different manufacturers were found so both were used.

Catawba Fastener Sampling

On November 30, 1987 Mark Lesser, NRC Resident Inspector for Catawba, reviewed the list of fasteners, tabulated them by material type, and performed an inspection of the fasteners in stock. Threaded rod was found but not chosen because a storekeeper familiar with fasteners stated that it was not issued very often; also the material types and manufacturers were represented by other bolt samples. Two non-QA bolt samples were chosen and one of them was added to the list. Mr. Lesser then reviewed the diversity of materials and manufacturers and agreed that the adjusted sample selection was acceptable. Four fasteners were replaced on December 3, 1987 because the samples originally chosen were out of stock or were misnumbered. A letter was written to document this adjustment to the list.

Oconee Fastener Sampling

On December 1, 1987 Len Wert, NRC Resident Inspector for Oconee and Nick Economos of Region II reviewed the list of fasteners, tabulated them by material type, and performed an inspection of the fasteners in stock. Threaded rod was found and an example was added to the list. Silica Bronze and eye bolt fasteners were removed from the list because they were not of interest to this bulletin. Oconee carries very few standard issue, general purpose fasteners and so most of the fasteners selected were Safety Related and associated with a specific plant purpose. Two materials and manufacturers of nuts were found under MMIS number 1007B3AN1C0B010 and so both were used (samples ONS/QA/NUT/26 and 27). MMIS number 23210244N was received as a nut and bolt pair so the bolt is sample ONS/QA/BOLT/5 and the nut is ONS/QA/NUT/22. Mr. Economos and Mr. Wert both reviewed the diversity of materials and manufacturers and agreed that the adjusted sample selection was acceptable. Len Wert later notified us that MMIS number 1007B1AS1C0G007050 was not a Safety Related fastener and it was exchanged for a QA fastener from the non-QA list.

Sample Testing

Chemical analysis for all fastener samples was performed by Chicago Spectro Service Laboratory, Inc. 4848 South Kedzie Ave. Chicago IL 60632. This company is an approved vendor for providing analytical services under the Duke Power QA program. Hardness and tensile testing was performed in and under the QA program of the metallurgy laboratory of the Production Support Department of Duke Power Company. It has been proposed that Law Engineering Services, Charlotte NC perform the Charpy impact property tests. Law Engineering also has Duke QA approval for material testing.

Oconee List of Fastener Samples (As of January 5, 1988)

Safety Related Bolts

Sample Number	MMIS Description	MMIS Number
ONS/QA/BOLT/1	Bolt,Mach Hex SS 3/4-10X3 1/2 SA-193/B8	02624012N
ONS/QA/BOLT/2	Bolt,Mach Hex HD SS 5/8-11X6 SA193/B8	02624017N
ONS/QA/BOLT/3	Bolt,Mach HVY HD CS 7/8-9 X 6-1/2 A325	02623399N
ONS/QA/ROD/4	Rod,THRD Alloy Steel 3/4-10 SA193 GR B7	1007B1AR1C0B006
ONS/QA/BOLT/5	Bolt,Hex Head RV 1-8X3 1/2 193 B7	23210244N
ONS/QA/STUD/6	Stud,CS 112T 1-8X7-1/4 OTSG PRI INSPECT	23240157N
ONS/QA/STUD/7	Stud,Load Pipe Clamp .750 X 10UNCX6.50	0298EE04FN
ONS/QA/STUD/8	Stud,1006688-001 MK#145 3/4" OTSG SEC	02691449N
ONS/QA/CAP/9	Capscrew,Hex HD 1-1/8-7X8 1/4 CD SA193	02653107N
ONS/QA/CAP/10	Capscrew,Soc HD 1-1/2-6X4 A574 LIMITOR	02655186N

Non Safety Bolts

ONS/NQ/BOLT/11	Bolt Machine Hex HD CS 7/8-9 X 4 GR 8	02623157
ONS/NQ/BOLT/12	Bolt Mach HVY Hex HD CS 1/2-13 X 2 A325	02621252N
ONS/NQ/BOLT/13	Bolt,Bracket 8348556 Diesel Generator	29020732N
ONS/NQ/STUD/14	Stud,B7 CL G 7/8-9 5 SA193	1007B1AS1C0G007050
ONS/NQ/BOLT/15	Bolt,Hex HD 1 1/4 X 6 A325 RCP Motor	20110249
ONS/NQ/BOLT/16	Bolt,Shell Mnwy Cvr 1-1/4-8 X 10 MSRH	N205023453
ONS/NQ/BOLT/17	Bolt,023 5/16 X 4 Fuel & Lube Oil Pmp	20391186N
ONS/NQ/SCRW/18	Screw,Assy HH 1/2-13X2 306/307 10 KIP	0298C755FN
ONS/NQ/SCRW/19	Screw,Cap Hex HD SS 3/8-16 X 2 B8M	02652100N
ONS/NQ/CAP/20	Capscrew,Soc HD 20 1X3-1/4 RCP Bingham	20110389N

Safety Related Nuts

ONS/QA/NUT/21	Nut,Hex AS 3/8-16 SA194 GR 8 CL B	1007C1AM1C0B003
ONS/QA/NUT/22	Nut,Hex 1-8 194 B7 CS (with bolt)	23210244N
ONS/QA/NUT/23	Nut,Hex CD 7/16-20 GRADE 8	02640007N
ONS/QA/NUT/24	Nut,Hex SS 3/8-16 A194 GRADE B8M	02642083N
ONS/QA/NUT/25	Nut,HVY Hex SS 3/4-10 SA194 GR 8	02642061N
ONS/QA/NUT/26	Nut,Hex 1-8 SA194 2H QA Tag 39323 Mfg"J"	1007B3AN1C0B010
ONS/QA/NUT/27	Nut,Hex 1-8 SA194 GR7 QA Tag 46009 Mfg"CU"	1007B3AN1C0B010
ONS/QA/NUT/28	Nut,HVY Hex CS 3/4-10 A563 GR A	02641784N
ONS/QA/NUT/29	Nut,HVY Hex CS 5/8-11 A325 GR A	02641237N
ONS/QA/NUT/30	Nut,Jam CS 2-3/4-4 A563 CL B	02641740N

Non Safety Nuts

ONS/NQ/NUT/31	Nut,HVY Hex CS 1-1/8-7 A307 GR A	02641179N
ONS/NQ/NUT/32	Nut,Hex CS 1-3/8-6 SURE LOC	02641397
ONS/NQ/NUT/33	Nut,Hex CS 2-4-1/2 2H SURE LOC	02641398
ONS/NQ/NUT/34	Nut,Hex CS 7/8-9 GR8	02641864
ONS/NQ/NUT/35	Nut,HVY Hex AS 3/4-10 A194 GR 8M CL E	1007C5AN1C0E006
ONS/NQ/NUT/36	Nut,HVY Hex CS 1-8 A307 GRADE A	02641211N
ONS/NQ/NUT/37	Nut,HVY Hex CS 1-8 A325 GRADE A	02641210N
ONS/NQ/NUT/38	Nut,HVY Hex CS 1-8 A563 GRADE A	02641301N
ONS/NQ/NUT/39	Nut,Hex CS 1-1/4-8 SA194 GR 7 MOIST SEP	N205023473
ONS/NQ/NUT/40	Nut,Manway 1006118-001 MK#160 OTSG SEC	N2320011530

Catawba List of Fastener Samples (As of December 11, 1987)

Safety Related Bolts

Sample Number	MMIS Description	MMIS Number
CNS/QA/BOLT/1	Bolt,Machine Hex HD CS 3/8-16X5 A-307/A	02623970N
CNS/QA/BOLT/2	Bolt,Machine Hex HD CS 7/16-14X5 J429/5	02623903N
CNS/QA/BOLT/3	Bolt,Machine Hex HD CS 7/16-14X5 SA449	02623902N
CNS/QA/BOLT/4	Bolt,Machine HVY Hex HD Alloy 3/4-10X4	02624010N
CNS/QA/BOLT/5	Bolt,Machine HVY Hex HDCS 3/4-10X6 A325	02622100N
CNS/QA/BOLT/6	Bolt,Secondary Handholds S/G 1 1/4-8X5	23240072N
CNS/QA/STUD/7	Stud,Alloy Steel 3/4-10X6 SA193 GR B7	1007B1AS1C0B006060
CNS/QA/SCRW/8	Screw,CAP 3/4-10X4 Camshaft Bearing Cap	29020956N
CNS/QA/SCRW/9	Screw,Cap Hex HD CS 3/4-10X4 J429/8	02653998N
CNS/QA/STUD/10	Stud,Vlv 3/4-10X5 3/4 ASME SA564 T630	244401851N

Non Safety Bolts

CNS/NQ/BOLT/11	Bolt,Hex HD Silicon Bron 3/8-16X1 F468	02621207N
CNS/NQ/SCRW/12	Screw,Cap Hex HD CS 7/16-20X2 GR 2	02652451
CNS/NQ/BOLT/13	Bolt,Mach Hex HD CS 1 1/8-7X6 A193 GRB7	02622111
CNS/NQ/BOLT/14	Bolt,Machine W/Nut Hex HD STL 5/16-18X2	02621014
CNS/NQ/BOLT/15	Bolt,Machine W/Nut Hex HD STL 3/8-16X4	02621030
CNS/NQ/SCRW/16	Screw,Cap Hex HD SS 1/2-20X1	02654553
CNS/NQ/SCRW/17	Screw,Cap Hex HD CS 7/16-20x4 GR2	02652453
CNS/NQ/BOLT/18	Bolt,Lftng Lug Hex HD CS 1 1/2X6X14 A325	02624000
CNS/NQ/SCRW/19	Screw,Cap Soc HD STL 1/2-13X2	02651809
CNS/NQ/SCRW/20	Screw,Set SQ HD Alloy STL 1/2-13X3	02654488

Safety Related Nuts

CNS/QA/NUT/21	Nut,Gl Vlv 6,3/4-10 SA194 GR 3M Borg W	244403773N
CNS/QA/NUT/22	Nut,HVY Hex 1 1/4-12X1 7/32X2 SA194/2H	02641775N
CNS/QA/NUT/23	Nut,Hex Alloy Stl 5/16-18 SA194 GR8 CL A	1007C1AM1C0A0005
CNS/QA/NUT/24	Nut,Hex BR 5/16-18 X 1/4 X 1/2	02641923N
CNS/QA/NUT/25	Nut,Hex GT VLV 6&8,5/8-11 SA194 GRADE 8M	244103251N
CNS/QA/NUT/26	Nut,Hex HD CS 5/8-11 X 9/16 X 15/16	02641915N
CNS/QA/NUT/27	Nut,Special Hex 1 1/2-6 A563 GR B	02642095N
CNS/QA/NUT/28	Nut,Hex SS 3/8-16 A194/B8	02641990N
CNS/QA/NUT/29	Nut,Hex Jam 1 1/4-20 ASTM A194 GR 2H G	244102420N
CNS/QA/NUT/30	Nut,Hex Jam 3/4-10 ASTM A194 GR 8M CK V	235100925N

Non Safety Nuts

CNS/NQ/NUT/31	Nut,HVY Hex CS 3/4-10 SA194 GR 7 CL B	1007B3AN1C0B006
CNS/NQ/NUT/32	Nut,Hex HVY STL 3/4-10X47/64X1 1/4 2B	02641027
CNS/NQ/NUT/33	Nut,Hex Silicon Bron 3/8-16X9/16X21/64	02641835
CNS/NQ/NUT/34	Nut,Hex STL 7/8-14X3/4X1 5/16 ZN CH	02641011
CNS/NQ/NUT/35	Nut,HVY Hex Alloy Stl 7/8-8 SA453 GR 660	1007B5AG1L0A013
CNS/NQ/NUT/36	Nut,HVY Hex CS 1 1/4-8 SA194 GR 2H CL B	1007B2AN1L0B012
CNS/NQ/NUT/37	Nut,HVY Hex CS 1-8 A563/A	02641301N
CNS/NQ/NUT/38	Nut,HVY Hex CS 7/8-9 SA194 GR 2H CL B	1007B2AN1C0B007
CNS/NQ/NUT/39	Nut,Hex CS 5/8-18 SA194/2H	02641764N
CNS/NQ/NUT/40	Nut,Hex Manhole Cover D/G Engine	29021177N

McGuire List of Fastener Samples (As of December 11, 1987)

Safety Related Bolts

Sample Number	MMIS Description	MMIS Number
MNS/QA/BOLT/1	Bolt,Hex Head A-325 1 1/2-6X8 UNRC-2A	02622016N
MNS/QA/BOLT/2	Bolt,Hex Head A-325 3/4-10X6 UNRC-2A	02621982N
MNS/QA/ROD/3	Rod,Threaded CS 3/4-10 SA193-B7 GR A	1007B1AR1C0A006
MNS/QA/STUD/4	Stud,3/4-10X5 SA193 GR B7	1007B1AS1C0A006050
MNS/QA/STUD/5	Stud,3/4-10X5 1/4 SA193 GR B7	1007B1AS1C0B006052
MNS/QA/CAP/6	Capscrew,Hex Head 7/16-14X4 SA-193GR B7	02652967N
MNS/QA/SCRW/7	Screw,CS Hex HD J429 Gr.8 1/2-13X3 1/2	02651885N
MNS/QA/SCRW/8	Screw,CS Hex HD 3/8-16X4 SA193 GR B7	02652950N
MNS/QA/BOLT/9	Bolt,Hex HD 1/2-13X7 3/4 SA307 GR A	1007A7AD1C0A004076
MNS/QA/BOLT/10	Bolt,Hex HD 1/2-13X6 SA193 B8M	1007C9AD1C0A004060

Non Safety Bolts

MNS/NQ/BOLT/11	Bolt,Carriage Oval HD CS 3/8-16X6	02621512
MNS/NQ/SCRW/12	Screw Cap 1/2X8 UC	02654092
MNS/NQ/BOLT/13	Bolt,Hex Head 1-8X4 A193 GR B7 For MSRs	Non-Stock 5-L-1-1
MNS/NQ/BOLT/14	Bolt,Machine CS Hex HD 1/2-13X4 A307/A	02623336
MNS/NQ/SCRW/15	Screw Cap 3/4X2 UC "Black Bethlehem St1"	02653580
MNS/NQ/SCRW/16	Screw Cap 3/4X2 UC "Plated KS Brand"	02653580
MNS/NQ/BOLT/17	Bolt,Hex Head A-325 3/4-10X3 UNRC-2A	02621979N
MNS/NQ/BOLT/18	Bolt,Hex 5/8-11X3 1/4 SA193 GR B8M	1007C9AD1C0A005032
MNS/NQ/SCRW/19	Screw,Cap 3/4X8	02655071
MNS/NQ/SCRW/20	Screw,CS Hex Head Cap 1/2-13X1 GR 5	02653189
MNS/NQ/SCRW/21	Screw,CS Hex HD 3/4-10X4 1/2 A325 GR 5	02653196

Safety Related Nuts

MNS/QA/NUT/22	Nut,3/4-10 SA194 GR B7 CLASS A	1007B3AN1C0A006
MNS/QA/NUT/23	Nut,HVY Hex CS 3/4-8 A194 GR2H STRUCTRL	02641674N
MNS/QA/NUT/24	Nut,Hex 3/8-16 A307/A	02641513N
MNS/QA/NUT/25	Nut,Hex 5/16-18 SA194 GR 2H CL B	02641748N
MNS/QA/NUT/26	Nut,Hexagon 7/16-14 ASTM A194 GR 8M	244102525N
MNS/QA/NUT/27	Nut,Hex CS 1/2-13X7/16X3/4 A307/A	02641512N
MNS/QA/NUT/28	Nut,Hex CS 1 1/2-8 A307	02641492N
MNS/QA/NUT/29	Nut,HVY Hex CS 3/4-10 SA194 GR 2H	1007B2AN1C0A006
MNS/QA/NUT/30	Nut,Hex 1/2-13 SA563 GRADE A	1007C7AM1C0A004
MNS/QA/NUT/31	Nut,Cap CS 1/2-13 SA194 GR 2H CL A	1007B2AZ1C0A004

Non Safety Nuts

MNS/NQ/NUT/32	Nut Hexagon 3/4 UNC	02641976
MNS/NQ/NUT/33	Nut SS Hex 1/2-13	02641082
MNS/NQ/NUT/34	Nut SS Hex 3/4-10	02641085
MNS/NQ/NUT/35	Nut,Hex Head,1/2-13X7/16 J429 GR8	02641076N
MNS/NQ/NUT/36	Nut,Jam CS 3/8-16 A307 GR A STRUCTURAL	02641587N
MNS/NQ/NUT/37	Nut,2D035 1-8UNC A582-GR416	P202635253
MNS/NQ/NUT/38	Nut,Hex 7/16-14 SA563 GR A	1007C7AM1C0A0007
MNS/NQ/NUT/39	Nut,Hex 3/4-10 SA194 GRADE 8M	1007C5AM1C0A006
MNS/NQ/NUT/40	Nut,Hex SS ANSI B18.6.3-1975 3/8-16	02641944N
MNS/NQ/NUT/41	Nut,Cap CS 9/16-12 SA194 GR 2H CL A	1007B2AZ1C0A0009

Attachment D

Duke Power Company
Response to NRC Compliance Bulletin 87-02
"Status and Schedule of the Evaluation
of Fastener Testing Results"

The evaluation of fastener testing results is not complete as of January 12, 1988. Status of this effort is as follows:

- All samples have been selected and forwarded to the lab.
- All testing has been completed unless we determine that some of the samples require impact testing.
- We have completed the review of approximately 70% of the test results at this time.
- Up to this point, we have not discovered any significant deviation from the material specifications.
- Barring any significant findings, we expect to complete our review, compilation, and submittal of the test results by February 11, 1988.
- Any deviations requiring engineering or safety evaluation would extend this period.