UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
Washington, D.C. 20555

INSPECTION AND ENFORCEMENT MANUAL

TEMPORARY INSTRUCTION 2515/71

INSPECTION OF LICENSEES' ACTIONS IN RESPONSE TO IE BULLETIN 82-02

2515/71-01 PURPOSE

To provide guidance for performing the inspection of licensees' actions in the development and implementation of maintenance procedures for threaded fastener practices and in the establishment of quality assurance measures for use of lubricants and sealants for connections with threaded fasteners.

2515/71-02 OBJECTIVE

The objective of this three-part inspection is to ensure that the requirements of IE Bulletin 82-02 are met with regard to (1) the establishment of maintenance procedures for threaded fasteners in components of the reactor coolant pressure boundary (RCPB) of pressurized-water reactors (PWRs), (2) the quality assurance measures to minimize susceptibility to stress corrosion cracking environments from lubricants for threaded fasteners in RCPB components of PWRs, and (3) the quality assurance measures to minimize susceptibility to stress corrosion cracking environments from use of sealants in connections of components of the RCPB of PWRs.

2515/71-03 BACKGROUND

The attached report, "Closeout of IE Bulletin 82-02 on Degradation of Threaded Fasteners in the Reactor Coolant Pressure Boundary of PWR Plants," and NUREG-1095, "Evaluation of Responses to IE Bulletin 82-02," explain the reasons for this three-part inspection.

2515/71-04 INSPECTION REQUIREMENTS

The following list indicates, by region, the parts of this three-part inspection that apply to the selected plants. Facilities marked with an asterisk have had their bulletin response reviewed and formally closed out by the appropriate regional inspector and the additional inspections shown in the list for those plants are recommendations only. These recommendations are based on the above normal number of occurrences of leaking connections reported from recent inspections for those plants. It is recommended that the indicated parts of this inspection be performed during routine inspections of those facilities.

REQUIRED INSPECTIONS

Facility	Inspection Part 1	2	3
Region I:			
Indian Point 3	X	X	
Salem 1	X	X	X
Salem 2	X	X	X
*Calvert Cliffs 2	X	X	
*Indian Point 2	X	X	
Region II:			
Farley 1	X	X	
Farley 2	X	X	
North Anna 1	X	X	
North Anna 2	X	X	
Oconee 3	X	X	
St. Lucie	X	X	
Surry 1		X	
Surry 2		X	
*Sequoyah 2	X		
Region III:			
Davis-Besse	X	X	X
D. C. Cook 1		X	X
D. C. Cook 2		X	X
Zion 1	X	X	
*Zion 2	X	X	
Region IV:			
*Fort Calhoun	X	X	
Region V:			
*Rancho Seco	X	X	

04.01 Inspection Part 1

a. This inspection shall be applied to those plants designated with an "X" in the column for inspection part 1 in the above list.

b. The inspection sample shall be selected on the basis of the following criteria, which are listed in sequence for sorting:

1. When the use of MoS_2 or graphite-based lubricants has been indicated for a connection, the maintenance procedures for that connection shall be given priority for selection. The use of MoS_2 or graphite-based lubricants on connections is indicated in responses to the bulletin, NUREG-1095, or the licensee's procedures.

2. The component connections to be given priority for selection are steam generator manways, pump main flanges, and valve bonnets.

3. Connections for which the licensee submittal indicated authorized use of more than one type of lubricant shall be given priority for selection.

4. In meeting the requirements of 1, 2, and 3 above, priority should be given to procedures for those connections for which leaks have been reported in recent inspections.

5. No more than two sets of these procedures need be reviewed at any one plant.

c. In inspecting the maintenance procedures for the connections selected for review by the criteria of 04.01b above, the inspector shall:

1. Determine whether the lubricant specified for use on threaded fasteners of that connection is the lubricant specified by the equipment manufacturer. If not, determine that deviations from the manufacturer's specification, or needed additional specifications, have been evaluated, reviewed, and approved. Deviations include a change of type, brand, or grade of the lubricant.

2. Determine whether the plant maintenance procedures for the specified torque value and/or bolt tensioning procedures for the threaded fasteners for that component are consistent with the specified torque values and/or tensioning procedures of the manufacturer's maintenance procedures manual. If not, determine that the deviations from the manufacturer's specifications, or needed additional specifications, have been evaluated, reviewed, and approved.

3. Determine that the torque values and/or bolt tensioning procedures used with any lubricant other than that specified by the equipment manufacturer have been evaluated, reviewed, and approved.

04.02 Inspection Part 2

a. This inspection shall be applied to those plants designated by an "X" in the column for inspection part 2 in the above list.

b. The inspection sample shall be selected on the basis of the following criteria:

1. When the use of MoS_2 or graphite-based lubricants has been indicated, the purchase documents for supplies of those lubricants shall be given priority for selection.

2. In meeting the requirements of 1 above, priority should be given to the purchase documents for lubricants of connections for which leaks have been reported in recent inspections.

3. No more than two sets of purchase documents need be reviewed at any one plant.

c. For the purchase documents selected for review by the criteria of 04.01b above, the inspector shall review the following:

1. Review the procurement procedure for lubricants for compliance with the QA requirements of ANS-3.2-1982, §5.2.13, "Procurement and Materials Control." If the licensee is committed to use of previous editions of this standard, that commitment shall provide the basis for the inspection.

2. Review the procurement documents for the most recent purchase of the lubricant selected for review for compliance with the requirements of the bulletin. Emphasis shall be given to control of the content of halogens and sulphur, other than the amount of sulphur which is stoichiometric with MoS_2.

3. Review the inspection and acceptance documents of the lubricants for the procurements examined in 04.02 above. Emphasis should be given to acceptance tests or review of certifications for chemical contaminants.

04.03 Inspection Part 3

a. This inspection shall be applied to those plants designated with an "X" in the column for inspection part 3 in the above list.

b. The inspection sample shall be selected on the basis of the following:

1. For each plant, ascertain whether sealants are authorized for use, prohibited from use, or if no position has been established in the plant maintenance program regarding their use in RCPB connections.

2. For those plants which have authorized the use of sealants in RCPB connections, no more than one set of procedures controlling the use of sealants need be reviewed.

3. For those plants that do not authorize or that specifically prohibit the use of sealants in components of the RCPB, no further inspection is required.

c. For the plants which have been selected for further inspection on the basis of 04.03b above, review the following:

1. Determine that the procedures for procurement of sealant materials, or for services that include supply of sealant materials, control the chemical content of the sealing materials to minimize the susceptibility of fasteners to stress corrosion cracking environments. Emphasis shall be given to control of the content of halogens and sulphur.

2. Determine that the procedures for applying sealants, or procuring services for application of sealants, have established requirements to avoid encapsulating corrosive environments around fasteners and to avoid contamination of the reactor coolant system during any part of the process of sealing the connection.

2515/71-05 REPORTING REQUIREMENTS

The inspector's findings are to be documented in the normal inspection report that assesses the adequacy of licensees' actions required by IE Bulletin 82-02. A copy should be sent to Robert Baer, Branch Chief, Engineering and Generic Communications Branch, Division of Emergency Preparedness and Engineering Response, Office of Inspection and Enforcement, USNRC, Washington, DC 20555.

2515/71-06 EXPIRATION DATE

This temporary instruction shall remain effective until the site inspections at the designated plants have been completed or December 31, 1986, which ever occurs first.

2515/71-07 IE CONTACT

Questions regarding this temporary instruction should be addressed to William F. Anderson at (301)492-4819.

2515/71-08 STATISTICAL DATA REPORTING

Recording of the inspection time spent on this effort may be applied to the following modules as appropriate:

35743	38995B
35746B	42451B
35747B	50073
38701B	62700
38702B	92703
38940B	

END