



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

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April 3, 1989

TO: ALL HOLDERS OF LIGHT WATER REACTOR OPERATING LICENSES AND  
CONSTRUCTION PERMITS

SUBJECT: GUIDANCE ON DEVELOPING ACCEPTABLE INSERVICE TESTING PROGRAMS  
(GENERIC LETTER NO. 89-04)

BACKGROUND

Paragraph 50.55a(g) of 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," requires that certain ASME Code Class 1, 2, and 3 pumps and valves be designed to enable inservice testing and that testing be performed to assess operational readiness in accordance with the Section XI requirements of the ASME Boiler and Pressure Vessel Code. The inservice testing of ASME Code Class 1, 2, and 3 pumps and valves should be viewed as one part of a broad effort to ensure operational readiness of equipment rather than viewed in the narrow sense as compliance with 10 CFR 50.55a(g). The intent of the testing is to detect degradation affecting operation and assess whether adequate margins are maintained. While this letter has been written to provide guidance relative to meeting the requirements of 10 CFR 50.55a(g), it is only one part of other ongoing industry and regulatory activities. Recent efforts have been undertaken by the nuclear industry and NRC sponsored research to provide information and techniques for enhanced assurance of equipment operability. NRC staff concerns regarding equipment operability led to the issuance of Bulletin 85-03, dated November 15, 1985, and Bulletin 85-03, Supplement 1, dated April 27, 1988. An expansion of the requirements of this bulletin in the form of a generic letter is being considered by NRC. In addition, NRC is considering rulemaking on IST to develop requirements to address the inadequacies in the current scope and methods of testing per 10 CFR 50.55a(g).

Light Water Reactor (LWR) licensees have submitted to the NRC inservice testing (IST) programs for pumps and valves pursuant to 10 CFR 50.55a(g). The editions and addenda applicable to IST program intervals are outlined in 10 CFR 50.55a(g)(4). If the licensee believes that conformance with certain code requirements is impractical, that conformance to the Code would cause unreasonable hardship without a compensating increase in safety or that a proposed alternative provides an acceptable level of quality and safety, 10 CFR 50.55a allows the licensee to request relief from the Code by notifying the Commission and submitting information to support this determination. Following the evaluation of this information, the Commission may grant relief and may impose alternative requirements.

All IST programs contain requests for relief from various Code requirements. In addition, the surveillance requirements of technical specification (T.S.) 4.0.5 for most plants state that this testing of pumps and valves must be performed in accordance with ASME Section XI except where specific written relief has been granted by the Commission. Because of the general nature of the IST sections of the ASME Code which does not consider plant specific designs and the resulting difficulty in complying with all the ASME Code requirements, utilities frequently revise their programs as more experience with IST is acquired. Programs at most plants are revised several times during the

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Based on the staff's experience the positions contained in Attachment 1 can be implemented at all plants. However, should licensees be unable to comply with one of these positions because of design considerations or personnel hazard, as opposed to inconvenience, any alternative testing must fulfill the basic test objective of detecting component degradation. Alternative testing should be individually evaluated by the licensee and the licensee's plant safety review committee (or equivalent). When evaluating testing, licensees should address the following:

1. Maintenance history of the individual (specific) component,
2. Maintenance history of related components in a similar environment,
3. Component vendor records of degradation at other facilities, and
4. Records on degradation of the same or like component from other utilities.

Licensees may utilize in-plant records, the NPRDS and other referenceable sources to compile data to address the above four areas. A lack of service experience or test results by itself is not sufficient to justify the alternative test.

The alternative test is not considered acceptable unless the above data is sufficient to justify its adequacy for detecting degradation and ensuring continued operability. Justification for the alternative test should be documented and retained in the IST program.

For plants not listed on either Table 1 or 2, currently submitted IST program relief requests are hereby approved for licensees who have not received an SER provided that they (1) review their most recently submitted IST programs and implementation procedures against the positions delineated in Attachment 1 and (2) within 6 months of the date of this letter confirm in writing their conformance with the stated positions. In cases where conformance with the stated positions would result in equipment modifications, the licensee should provide in his confirmation letter a schedule for completing the required modifications. All modifications must be completed within 18 months of the date of the confirmatory letter or the first scheduled refueling outage following the confirmation letter, whichever occurs later. Changes to the IST programs as a result of this generic letter, should be submitted to the NRC along with the confirmation letter. Approval is granted provided the programs are consistent with the positions taken in Attachment 1 or, for positions that necessitate a plant modification, will be consistent with Attachment 1 on the schedule noted above. Where a deviation needs to be taken from a specific position in Attachment 1, the approval is granted provided the adequacy of the proposed alternative testing for detecting degradation is justified as discussed above.

#### C. Programs With Completed NRC Reviews

For the plants listed in Table 2 the staff has completed its review of the IST program and issued an SER. These plants need not respond with the confirmation letter discussed above. The status of the relief requests approved in the SER is not affected by this letter. The relief requests that were approved in the SER may continue to be implemented, and those that were denied should be

the operational readiness of pumps and valves have been or will be the subject of regulatory actions such as generic letters and rulemaking. Provided the provisions of this letter are followed, the staff has determined that relief is granted to follow the alternative testing delineated in positions 1, 2, 6, 7, 9, and 10, pursuant to 10 CFR 50.55a(g)(6)(i), is authorized by law, and will not endanger life or property or the common defense and security and is otherwise in the public interest. In making this determination the staff has considered the impracticality of performing the required testing considering the burden if the requirements were imposed.

This request is covered by Office of Management and Budget Clearance Number 3150-0011 which expires December 31, 1989. The estimated average burden hours is 700 man-hours per owner response, including assessment of the new recommendations, searching data sources, gathering and analyzing the data, and preparing the required letters. These estimated average burden hours pertain only to these identified response-related matters and do not include the time for actual implementation of the requested actions. Comments on the accuracy of this estimate and suggestions to reduce the burden may be directed to the Office of Management and Budget, Room 3208, New Executive Office Building, Washington, D.C. 20503, and the U.S. Nuclear Regulatory Commission, Records and Reports Management Branch, Office of Administration and Resources Management, Washington, D.C. 20555.

Sincerely,



Steven A. Varga, Acting  
Associate Director for Projects  
Office of Nuclear Reactor Regulation

Enclosures:  
Tables 1 and 2  
w/Attachment 1

TABLE 1

PLANTS WITH SERs TO BE ISSUED IN NEAR FUTURE

Beaver Valley 1  
Braidwood 1&2  
Brunswick  
Calvert Cliffs 1&2  
Clinton  
Comanche Peak  
D.C. Cook 1&2  
Farley 1&2  
Ft. Calhoun  
Hatch 1&2  
Hope Creek  
Kewaunee  
Limerick 1&2  
McGuire 1&2  
Millstone 2  
Nine Mile Point 1  
Nine Mile Point 2

Peach Bottom 2&3  
Rancho Seco  
River Bend  
Robinson 2  
Seabrook 1  
SONGS 2&3  
St. Lucie 2  
Summer  
Surry 1&2  
Vogle 1  
Waterford 3  
Wolf Creek  
WNP 2  
Zion 1&2

ATTACHMENT 1

POTENTIAL GENERIC DEFICIENCIES RELATED TO  
IST PROGRAMS AND PROCEDURES

1. Full Flow Testing of Check Valves.

Section XI of the ASME Code requires check valves to be exercised to the positions in which they perform their safety functions. A check valve's full-stroke to the open position may be verified by passing the maximum required accident condition flow through the valve. This is considered by the staff as an acceptable full-stroke. Any flow rate less than this will be considered a partial-stroke exercise. A valid full-stroke exercise by flow requires that the flow through the valve be known. Knowledge of only the total flow through multiple parallel lines does not provide verification of flow rates through the individual valves and is not a valid full-stroke exercise.

Full flow testing of a check valve as described above may be impractical to perform for certain valves. It may be possible to qualify other techniques to confirm that the valve is exercised to the position required to perform its safety function. To substantiate the acceptability of any alternative technique for meeting the ASME Code requirements, licensees must as a minimum address and document the following items in the IST program:

1. The impracticality of performing a full flow test,
2. A description of the alternative technique used and a summary of the procedures being followed,
3. A description of the method and results of the program to qualify the alternative technique for meeting the ASME Code,
4. A description of the instrumentation used and the maintenance and calibration of the instrumentation,
5. A description of the basis used to verify that the baseline data has been generated when the valve is known to be in good working order, such as recent inspection and maintenance of the valve internals, and
6. A description of the basis for the acceptance criteria for the alternative testing and a description of corrective actions to be taken if the acceptance criteria are not met.

An acceptable alternative to this full-stroke exercising requirement is stated in position 2 below.

A different valve of each group is required to be disassembled, inspected, and manually full-stroke exercised at each successive refueling outage, until the entire group has been tested. If the disassembled valve is not capable of being full-stroke exercised or there is binding or failure of valve internals, the remaining valves in that group must also be disassembled, inspected, and manually full-stroke exercised during the same outage. Once this is completed, the sequence of disassembly must be repeated unless extension of the interval can be justified.

Extending the valve sample disassembly and inspection interval from disassembly of one valve in the group every refueling outage or expanding the group size would increase the time between testing of any particular valve in the group. With four valves in a group and an 18-month reactor cycle, each valve would be disassembled and inspected every six years. If the fuel cycle is increased to 24 months, each valve in a four-valve sample group would be disassembled and inspected only once every 8 years.

Extension of the valve disassembly/inspection interval from that allowed by the Code (quarterly or cold shutdown frequency) to longer than once every 6 years is a substantial change which may not be justified by the valve failure rate data for all valve groupings. When disassembly/inspection data for a valve group show a greater than 25% failure rate, the licensee should determine whether the group size should be decreased or whether more valves from the group should be disassembled during every refueling outage.

Extension of the valve disassembly/inspection interval to one valve every other refueling outage or expansion of the group size above four valves should only be considered in cases of extreme hardship where the extension is supported by actual in-plant data from previous testing. In order to support extension of the valve disassembly/inspection intervals to longer than once every 6 years, licensees should develop the following information:

- a. Disassemble and inspect each valve in the valve grouping and document in detail the condition of each valve and the valve's capability to be full-stroked.
- b. A review of industry experience, for example, as documented in NPRDS, regarding the same type of valve used in similar service.
- c. A review of the installation of each valve addressing the "EPRI Applications Guidelines for Check Valves in Nuclear Power Plants" for problematic locations.

### 3. Back Flow Testing of Check Valves.

Section XI requires that Category C check valves (valves that are self actuated in response to a system characteristic) performing a safety function in the closed position to prevent reversed flow be tested in a manner that proves that the disk travels to the seat promptly on cessation or reversal of flow. In addition, for category A/C check valves (valves that

On April 20, 1981, the NRC issued an Order to 32 PWRs and 2 BWRs which required that these licensees conduct leak rate testing of their PIVs, based on plant-specific NRC supplied lists of PIVs, and required licensees to modify their TS accordingly. These orders are known as the "Event V Orders" and the valves listed therein are the "Event V" PIVs. The Event V PIVs are a subset of PIVs.

Based upon the results of recent inspections, it has been determined that the following implementation problem still exists with respect to testing of PIVs. The staff has determined that in some cases the procedures are inadequate to assure that these valves are individually leak tested and evaluated against the leakage limits specified in the TS; in other cases, the procedures were adequate but were not being followed. Specifically, some check valves were tested in series as opposed to individually and some check valves were not tested when required.

Licensees should review their testing procedures to ensure the Event V PIVs are individually leak rate tested.

#### 5. Limiting Values of Full-Stroke Times for Power Operated Valves

The Code intent with respect to measuring the full-stroke times of power operated valves is to verify operability and to detect valve degradation. Measurement of full stroke times for air operating valves fulfills this intent. However, reviews of operating experience have identified several problems with motor operated valves (MOVs) including limitations with stroke time as a measure of operational readiness of the MOV. As a result, the industry has made extensive efforts to improve the knowledge and understanding of operational characteristics of motor operated valves. This effort has been conducted by industry groups (NUMARC, INPO, NMAC, EPRI), individual licensees, equipment vendors, and national standards groups.

We believe the information and knowledge developed by these groups should be reviewed and utilized. Some of the information publicly available includes an INPO white paper titled, "Motor-Operated Valve Performance Update," issued October 4, 1988. This document identifies MOV problem areas and provides the key elements for a comprehensive MOV program. Another document is the "Technical Repair Guidelines for the Limatorque Model SMB-GCC Valve Actuator," issued by the Nuclear Maintenance Application Center (NMAC) in January 1989. This guide addresses several areas such as setting torque and limit switches, preventive maintenance, actuator failure modes, failure analysis to determine root cause and corrective action, and preoperational and post-maintenance testing.

NRC staff concerns regarding MOV operability led to the issuance of Bulletin 85-03 and Bulletin 85-03, Supplement 1. Expansion of this bulletin in the form of a generic letter is being considered by the NRC.

Most plants have many power operated valves that are capable of stroking in 2 seconds or less such as small solenoid operated valves. Licensees encounter difficulty in applying the Code 50% increase of stroke time corrective action requirements for these valves. The purpose of this requirement is to detect and evaluate degradation of a valve. For valves with stroke times in this range, much of the difference in stroke times from test to test comes from inconsistencies in the operator or timing device used to gather the data. These differences are compounded by rounding the results as allowed by the Code. Thus, the results may not be representative of actual valve degradation.

The following discussion illustrates the problem that may exist when complying with the Code requirements for many of these rapid-acting valves:

A valve may have a stroke time of 1.49 seconds during one test and a stroke time during the following test of 1.51 seconds. If stroke times are rounded to the nearest second as allowed by the Code, the difference between these tests would exceed the 50% criteria and would require an increased frequency of testing until corrective action is taken. This can result from a stroke time difference of 0.02 seconds, which is usually not indicative of significant valve degradation.

Power operated valves with normal stroke times of 2 seconds or less are referred to by the staff as "rapid-acting valves." Relief may be granted from the requirements of Section XI, Paragraph IWV-3417(a) for these valves provided the licensee assigns a maximum limiting value of full-stroke time of 2 seconds to these valves and, upon exceeding this limit, declares the valve inoperable and takes corrective action in accordance with IWV-3417(b).

An acceptable alternative to the Code stroke timing requirements is the above stated rapid-acting valve position. Since this represents a deviation from the Code requirements, it should be specifically documented in the IST program.

7. Testing Individual Control Rod Scram Valves in Boiling Water Reactors (BWRs)

BWRs are equipped with bottom-entry hydraulically driven control rod drive mechanisms with high-pressure water providing the hydraulic power. Each control rod is operated by a hydraulic control unit (HCU), which consists of valves and an accumulator. The HCU is supplied charging and cooling water from the control rod drive pumps, and the control rod operating cylinder exhausts to the scram discharge volume. Various valves in the control rod drive system perform an active function in scrambling the control rods to rapidly shut down the reactor.

The NRC has determined that those ASME Code Class valves that must change position to provide the scram function should be included in the IST program and be tested in accordance with the requirements of Section XI except where relief has been granted in a previously issued Safety Evaluation Report or as discussed below.



defined in the plant TS can be an acceptable alternate method of detecting degradation of these valves. Also, trending the stroke times of these valves may be impractical and unnecessary since they are indirectly stroke timed and no meaningful correlation between the scram time and valve stroke time may be obtained, and furthermore, conservative limits are placed on the control rod scram insertion times. If the above test is used to verify the operability of scram inlet and outlet valves, it should be specifically documented in the IST program.

8. Starting Point for Time Period in TS ACTION Statements

ASME Section XI, IWP-3220, states "All test data shall be analyzed within 96 hours after completion of a test". IWP-3230(c) states, in part, "If the deviations fall within the 'Required Action Range' of Table IWP-3100-2, the pump shall be declared inoperative,...."

In many cases pumps or valves covered by ASME, Section XI, Subsections IWP and IWV, are also in systems covered by TS and, if declared inoperable, would result in the plant entering an ACTION state-ment. These ACTION statements generally have a time period after which, if the equipment is still inoperable, the plant is required to undergo some specific action such as commence plant shutdown.

The potential exists for a conflict between the aforementioned data analysis interval versus the TS ACTION statement time period. Section XI, IWP-6000 requires the reference values, limits, and acceptance criteria to be included in the test plans or records of tests. With this information available, the shift individual(s) responsible for conducting the test (i.e., shift supervisor, reactor operator) should be able to make a timely determination as to whether or not the data meets the requirements.

When the data is determined to be within the Required Action Range of Table IWP-3100-2 the pump is inoperable and the TS ACTION statement time starts. The provisions in IWP-3230(d) to recalibrate the instruments involved and rerun the test to show the pump is still capable of fulfilling its function are an alternative to replacement or repair, not an additional action that can be taken before declaring the pump inoperable

The above position, which has been stated in terms of pump testing, is equally valid for valve testing.

In summary, it is the staff's position that as soon as the data is recognized as being within the Required Action Range for pumps or exceeding the limiting value of full-stroke time for valves, the associated component must be declared inoperable and the TS ACTION time must be started.

10. Containment Isolation Valve Testing

All containment isolation valves (CIVs) that are included in the Appendix J, program should be included in the IST program as Category A or A/C valves. The staff has determined that the leak test procedures and requirements for containment isolation valves specified in 10 CFR 50, Appendix J are equivalent to the requirements of IWV-3421 through 3425. However, the licensee must comply with the Analysis of Leakage Rates and Corrective Action requirements of Paragraph IWV-3426 and 3427(a).

IWV-3427(b) specifies additional requirements on increased test frequencies for valve sizes of six inches and larger and repairs or replacement over the requirements of IWV-3427(a). Based on input from many utilities and staff review of testing data at some plants, the usefulness of IWV-3427(b) does not justify the burden of complying with this requirement. Since this position represents a deviation from the Code requirements, it should be documented in the IST program.

11. IST Program Scope

The 10 CFR 50.55a requires that inservice testing be performed on certain ASME Code Class 1, 2, and 3 pumps and valves. Section XI Subsections IWP-1100 and IWV-1100 defines the scope of pumps and valves to be tested in terms of plant shutdowns and accident mitigation. The plant's FSAR (or equivalent) provides definitions of the necessary equipment to meet these functions. The staff has noted during past IST program reviews and inspections that licensees do not always include the necessary equipment in their IST programs. Licensees should review their IST programs to ensure adequate scope. Examples that are frequently erroneously omitted from IST programs are:

- a. BWR scram system valves,
- b. control room chilled water system pumps and valves,
- c. accumulator motor operated isolation valves, or accumulator vent valves,
- d. auxiliary pressurizer spray system valves,
- e. boric acid transfer pumps,
- f. valves in emergency boration flow path,
- g. control valves that have a required fail-safe position,
- h. valves in mini-flow lines.

It should be recognized that the above examples of pumps and valves do not meet the IWP/and IWV scope statement requirements for all plants.

The intent of 10 CFR 50 Appendix A, GDC-1, and Appendix B, Criterion XI, is that all components, such as pumps and valves, necessary for safe operation are to be tested to demonstrate that they will perform satisfactorily in service. Therefore, while 10 CFR 50.55a delineates the testing requirements for ASME Code Class 1, 2, and 3 pumps and valves, the testing of pumps and valves is not to be limited to only those covered by 10 CFR 50.55a.

**LIST OF RECENTLY ISSUED GENERIC LETTERS**

<b>Generic Letter No.</b>	<b>Subject</b>	<b>Date of Issuance</b>	<b>Issued To</b>
89-03	OPERATOR LICENSING NATIONAL EXAMINATION SCHEDULE	3/24/89	ALL POWER REACTOR LICENSEES AND APPLICANTS FOR AN OPERATING LICENSE
89-02	ACTIONS TO IMPROVE THE DETECTION OF COUNTERFEIT AND FRAUDULENTLY MARKETED PRODUCTS	3/21/89	ALL HOLDERS OF OPERATING LICENSES AND CONSTRUCTION PERMITS FOR NUCLEAR POWER REACTORS
89-01	IMPLEMENTATION OF PROGRAMMATIC CONTROLS FOR RADIOLOGICAL EFFLUENT TECHNICAL SPECIFICATIONS IN THE ADMINISTRATIVE CONTROLS SECTION OF THE TECHNICAL SPECIFICATIONS AND THE RELOCATION OF PROCEDURAL DETAILS OF RETS TO THE OFFSITE DOSE CALCULATION MANUAL OR TO THE PROCESS CONTROL PROGRAM.	1/31/89	ALL LICENSEES HOLDING OPERATING LICENSES AND CONSTRUCTION PERMITS FOR NUCLEAR POWER REACTOR FACILITIES.
88-20	INDIVIDUAL PLANT EXAMINATION FOR SEVERE ACCIDENT VULNERABILITIES - 10 CFR 50.54(f)	11/23/88	ALL LICENSEES HOLDING OPERATING LICENSES AND CONSTRUCTION PERMITS FOR NUCLEAR POWER REACTOR FACILITIES
88-19	USE OF DEADLY FORCE BY LICENSEE GUARDS TO PREVENT THEFT OF SPECIAL NUCLEAR MATERIAL	10/28/88	ALL FUEL CYCLE FACILITY LICENSEES WHO POSSESS, USE, IMPORT, EXPORT, OR TRANSPORT FORMULA QUANTITIES OF STRATEGIC SPECIAL NUCLEAR MATERIAL
88-18	PLANT RECORD STORAGE ON OPTICAL DISKS	10/20/88	ALL LICENSEES OF OPERATING REACTORS AND HOLDERS OF CONSTRUCTION PERMITS
88-17	LOSS OF DECAY HEAT REMOVAL 10 CFR 50.54(f)	10/17/88	ALL HOLDERS OF OPERATING LICENSES OR CONSTRUCTION PERMITS FOR PRESSURIZED WATER REACTORS

GUIDANCE FOR THOSE PLANTS COVERED  
BY TABLES 1 AND 2 OF GL 89-04

Table 1 Plants

1. EMEB provides PM IST SE.
2. PM issues IST SE to the licensee.
3. No confirmation letter required from the licensee.
4. Relief requests approved by SE are unaffected by GL 89-04 and may continue to be implemented.
5. Relief requests denied in SE should be resolved in accordance with SE.
6. If licensees have modified or plan to modify their IST program beyond that which was the basis for the SE, follow Enclosure C to this memorandum.

Table 2 Plants

1. No confirmation letter required.
2. Relief requests approved by SE are unaffected by GL 89-04 and may continue to be implemented.
3. Relief requests denied in SE should be resolved in accordance with SE.
4. If licensees have modified or plan to modify IST program beyond that which was the basis for the SE, follow Enclosure C to this memorandum.

GUIDANCE FOR THOSE PLANTS NOT LISTED IN EITHER  
TABLE 1 OR TABLE 2 OF GL 89-04

1. GL 89-04 constitutes required approval for the implementation of IST program relief requests provided licensee reviews their IST program and amends it to:
  - (a) conform with the Code requirements explained in Positions 1, 3, 5, and 11 of Attachment 1 of GL 89-04;
  - (b) conform with the Technical Specification (TS) requirements explained in Positions 4 and 8 of Attachment 1 of GL 89-04;
  - (c) conform with applicable Code requirements or staff approved alternatives in Positions 1, 2, 6, 7, and 10 of Attachment 1 of GL 89-04; and
  - (d) justify and document, where required, alternative testing as noted in item 2. below. These justifications may be evaluated during inspections.
  
2. Where a deviation from a Position in Attachment 1 needs to be taken due to design considerations or personnel hazard, alternative testing
  - (a) must fulfill the basic test objective of detecting component degradation;
  - (b) should be individually evaluated by the licensee and licensee's plant safety review committee addressing:
    - (i) maintenance history of the specific component;
    - (ii) maintenance history of related components in a similar environment;

- (iii) component vendor records of degradation at other facilities;  
and
- (iv) records of degradation of the same or like components from  
other utilities.

NOTE: In-plant records, NPRDS, and other referenceable sources may be utilized to compile data to address the above areas. Lack of service experience or test results by itself is insufficient to justify an alternate test. Data must be sufficient to justify the alternative test's adequacy for detecting degradation and ensuring continued operability.

- (c) should be documented and retained in the IST program. This may be reviewed during plant inspections.

3. Licensee is to confirm by letter by 10/3/89:

- (a) their conformance, as noted above, to the Positions of Attachment 1 to GL 89-04;
- (b) a schedule for equipment modifications required by conformance to the Positions of Attachment 1 of GL 89-04; and

NOTE: All modifications must be made by the latter of:

- (i) first scheduled refueling outage following their confirmatory letter; or
- (ii) within 18 months following their confirmatory letter.

(c) that procedures have been reviewed and amended to address deficiencies related to the implementation of Positions in Attachment 1 of GL 89-04.

4. PMs should review the confirmation letter for consistency with Item 3 above.
5. For areas of non-conformance between the confirmation letter and GL, see CASE 3 of Enclosure C.

GUIDANCE FOR THOSE FACILITIES MODIFYING THEIR IST PROGRAM BEYOND  
THE IST PROGRAM SUBMITTAL AS OF 4/3/89 (i.e. PROGRAM UPDATES/REVISIONS)

CASE 1: IST Program Changes for Which Specific Acceptable Alternatives Are Provided in Attachment 1 of GL 89-04

GL constitutes the required approval, and no plant specific TAC is required.

CASE 2: IST Program Relief Request for Which Specific Acceptable Alternatives Are Not Provided in Attachment 1 of GL 89-04 (i.e., in Positions 1, 2, 6, 7, and 10).

1. 10 CFR 50.55(a)g applies.
2. Plant specific TAC to be issued by the PM.

\*CASE 3: IST Program Changes Taking Exception to the GL or Its Attachment.

1. This case would constitute non-conformance to the GL.
2. For areas of exception, the licensee would not have NRC approval to implement the change and would be outside the applicable regulation, 10 CFR 50.55a, if they did.
3. The licensee is liable to enforcement action under T.S. 4.0.5 until NRC review is completed and resolution implemented in the licensee's testing procedures.

\* This case is not really covered by the GL