SECTION I

INSPECTION OBJECTIVE

Ascertain whether the licensee has developed and implemented a QA Program relating to the control of test and experiments that is in conformance with Regulatory Requirements, commitments in the application and industry guides and standards.

SECTION II

INSPECTION REQUIREMENTS

1. Test and Experiment Controls

a. Program Review

(1) Verify that a formal method has been established to handle all request or proposals for conducting plant tests and experiments involving safety related components, systems or structures or modes of operation different from those described in the FSAR.

(2) Verify that provisions have been made to assure that all tests and experiments will be performed in accordance with approved written procedures.

(3) Verify that responsibilities have been assigned for reviewing and approving test and experimental procedures.

(4) Verify that responsibilities have been assigned to assure that the controls identified under (1), (2) and (3) above will be implemented.

(5) Verify that a formal system, including assignment of responsibility, has been established to assure that all proposed tests and experiments will be reviewed to determine whether they are described in the FSAR.

(6) Verify that responsibilities have been assigned to assure that a written safety evaluation pursuant to 10 CFR 50.59, will be developed for each test or experiment not described in the SAR to assure that it does not involve an unreviewed safety question or a change in the Technical Specifications.

(7) Verify that responsibility has been assigned to assure that all tests and experiments conducted pursuant to 10 CFR 50.59 will be formally reported to the NRC in a timely manner.

b. Implementation

(1) Verify by interviewing the plant superintendent and the operations supervisor that they are aware of the test and experiment controls identified under (5) and (6) above.

(2) Select 3 tests/experiments and verify that they were in conformance with the controls established in Item 1.a above.

SECTION III
INSPECTION GUIDANCE

References: ANSI N45.2.8-1975; ANSI N18.7-1976; Sections 13 and 17 of the FSAR; Section 6 of Proposed Technical Specifications; 10 CFR Part 50.59; Appendix B to 10 CFR 50 - Criteria I, XI

1. Test and Experimental Controls

Sections 13.5 and 17.1.11 of the standard FSAR and Section 6.5 of the Standard Technical Specifications should describe test control measures. Both documents may reference the requirements and recommendations set forth in Section 4.3.4 of ANSI N18.7-1976.

a.(1) Each test and experiment request should be documented in such a manner that the licensee can assure himself reviews will be conducted and approvals obtained prior to conducting a test or experiment.

a.(2) Section 5 of ANSI N18.7-1976 provides general guidance on test procedure requirements.

a.(5) In accordance with 10 CFR 50.59, the holder of an operating license may conduct tests and experiments not described in the FSAR provided such tests and experiments do not involve a change to the technical specifications or an unreviewed safety question. The licensee should have a system along with assigned responsibilities to assure that all proposed safety related tests and experiments will be checked to determine whether they are beyond the operations described in the FSAR.

Guidance related to the applicability of 10 CFR 50.59 to the conduct of tests and experiments not described in the SAR is discussed in the interpretation (50.59) section of the IE Manual.

a.(6) Paragraph (b) of 10 CFR 50.59 requires that a written safety evaluation will be developed and maintained for each proposed test or experiment to assure that is does not

generate an unreviewed safety question or a change to the technical specifications. The bases for these findings must be included in the evaluation. Historically, failure to conduct adequate written safety evaluations has been the subject of violations of NRC regulations.

Therefore, responsibilities should be assigned by the licensee, in writing, to assure that these evaluations will be performed.

a.(7) Paragraph (b) of 10 CFR 50.59 requires the licensee to furnish to the NRC annually or at shorter intervals, a report containing a brief description of tests and experiments not described in the FSAR which were performed without prior Commission approval. The report must include a brief summary of the safety evaluation of each test or experiment reported. Annual operations reports are most often used as the vehicle for reporting these tests and experiments. Responsibility should be assigned, in writing, to assure that the items are reported as required.

b.(1) At the outset of plant operations, our inspectors have found on several occasions in the past that key personnel, such as the plant superintendent and operations supervisors, were not familiar with the test and experiment control requirements set forth in 10 CFR 50.59.

NOTE: 1. The program review function should be completed during the operational preparedness phase of MC 2513.

2. A Test and Experiments Program is not required until the facility license is issued. Therefore, inspection of program implementation may be deferred if necessary but should be completed within the first six-month period of operation.

3. For record keeping purposes, the program review and program implementation phases of the inspection will be assigned arbitrary values of 50% of the total inspection effort.