



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

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Netley

JUN 24 1981

MEMORANDUM FOR: Chairman Hendrie
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne

FROM: William J. Dircks
Executive Director for Operations

SUBJECT: BIMONTHLY REPORT ON CONFIRMATORY TESTS FOR ELECTRICAL
CONNECTORS AND REPLICATION TESTS FOR FIRE PROTECTION
SYSTEMS

- References:
1. CLI-80-21, dated May 27, 1980
 2. Memorandum from Robert J. Budnitz to Commission, dated July 15, 1980
 3. Memorandum from Samuel J. Chilk to William J. Dircks, dated August 5, 1980
 4. Memorandum from Thomas E. Murley to Commission, dated September 11, 1980
 5. Memorandum from Thomas E. Murley to Commission, dated November 5, 1980
 6. Memorandum from William J. Dircks to Commission, dated January 22, 1981
 7. Memorandum from William J. Dircks to Commission, dated March 19, 1981

This bimonthly report is being sent to the Commission concerning the following two areas of our current research work:

1. LOCA confirmatory tests for electrical connectors, and
2. Replication tests for fire protection systems.

LOCA Confirmatory Tests for Electrical Connectors

The connectors from Duke Power were delivered in March. Final assembly was delayed until May 15 because of a delay in delivery of the assembly tools. The thermal aging was completed on May 26. The radiation aging commenced on May 29 and was completed on June 10.

The LOCA test commenced on June 15 and was completed on June 21. There was some evidence of insulation resistances lower than those specified in the acceptance criteria. The test results are currently being evaluated by IE and Sandia National Laboratories, and we expect to receive a preliminary test report from Sandia National Laboratories in early July.

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Replication Testing of Fire Protection Systems
(Browns Ferry Reactor Building)

The series of separate effects tests to determine the response time of the fire detectors in the test fire conditions was completed on May 15. Detector response is on the order of 35-45 seconds. We expect to approve the final Browns Ferry replication test plan in June. Preparations are underway to perform the first replication test on July 17.

As already reported in my memo dated May 4, 1981, to Commissioner Bradford, Subject: "Fire Protection Research Briefing," RES was already committed to the Browns Ferry test. Since most of the capital funds had already been expended, the decision was made to complete the two phases of the test as planned and add a third that would give substantial added information at minimal increased cost. The two original phases called for running the test fire with the automatic sprinklers operating and the automatic sprinklers shut off. The new third phase calls for repeating the test with the automatic sprinklers shut off, but with one safety train wrapped with a mineral wool blanket giving 1-hour fire resistance.

Replication Testing of Fire Protection Systems
(Brunswick Intake Structure Basement)

Data have been received from the utility and are currently being evaluated. During a recent briefing for Commissioner Bradford, the staff recommended deletion of this test so that other tests could be conducted that would be more relevant to current licensing problems. A formal staff recommendation on this issue will be submitted after the results of the Browns Ferry tests have been evaluated.

(Signed) William J. Dircks

William J. Dircks
Executive Director for Operations

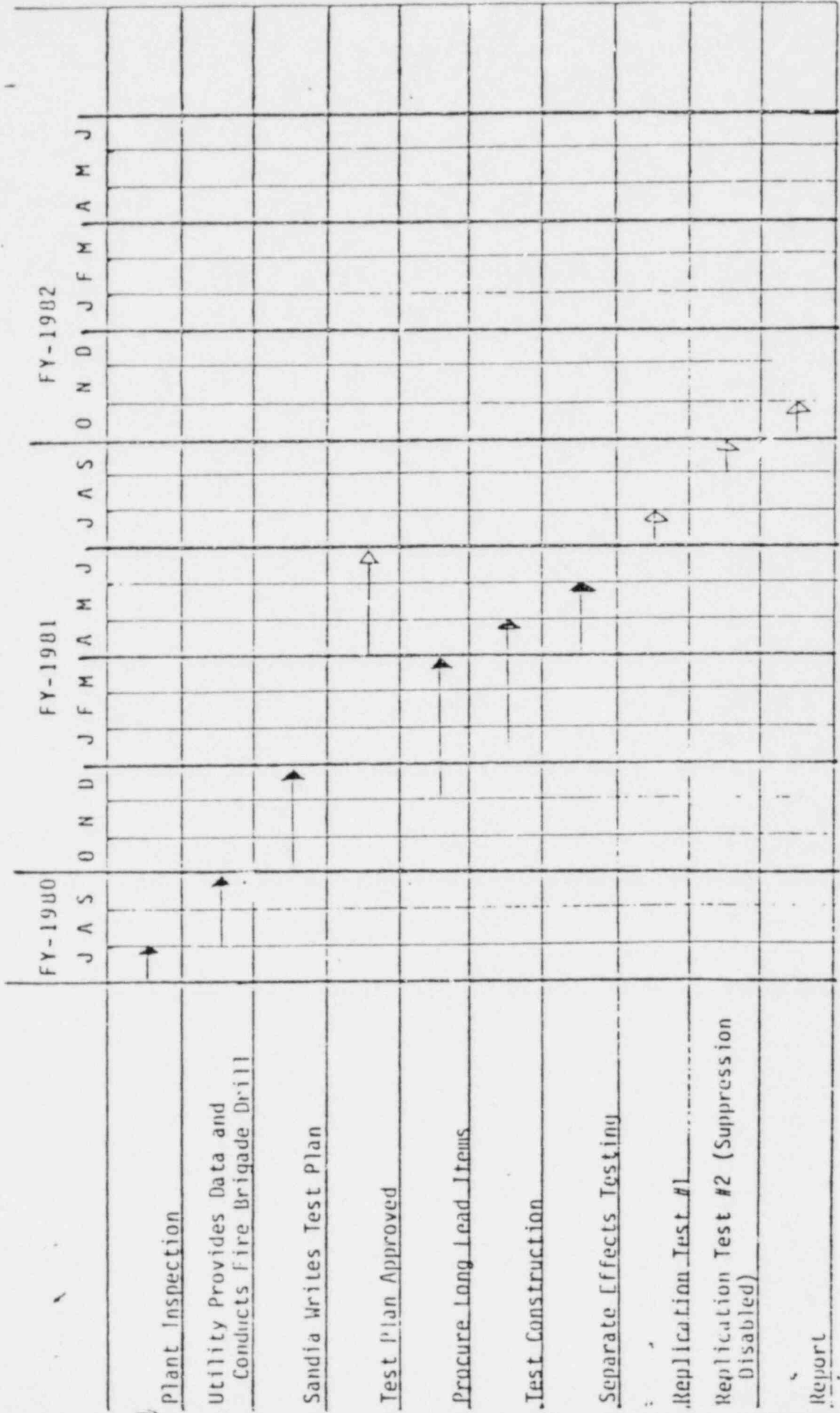
Enclosures:

1. Sch. for Replic. Testing of Browns Ferry Reactor Building
2. Sch. of Replic. Testing of Brunswick Intake Structure Basement
3. Sch. for Duke Power Connector Verification Test

cc: ✓ SECY
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Schedule for
 Replication Testing of Browns Ferry Reactor Building

June 1, 1981



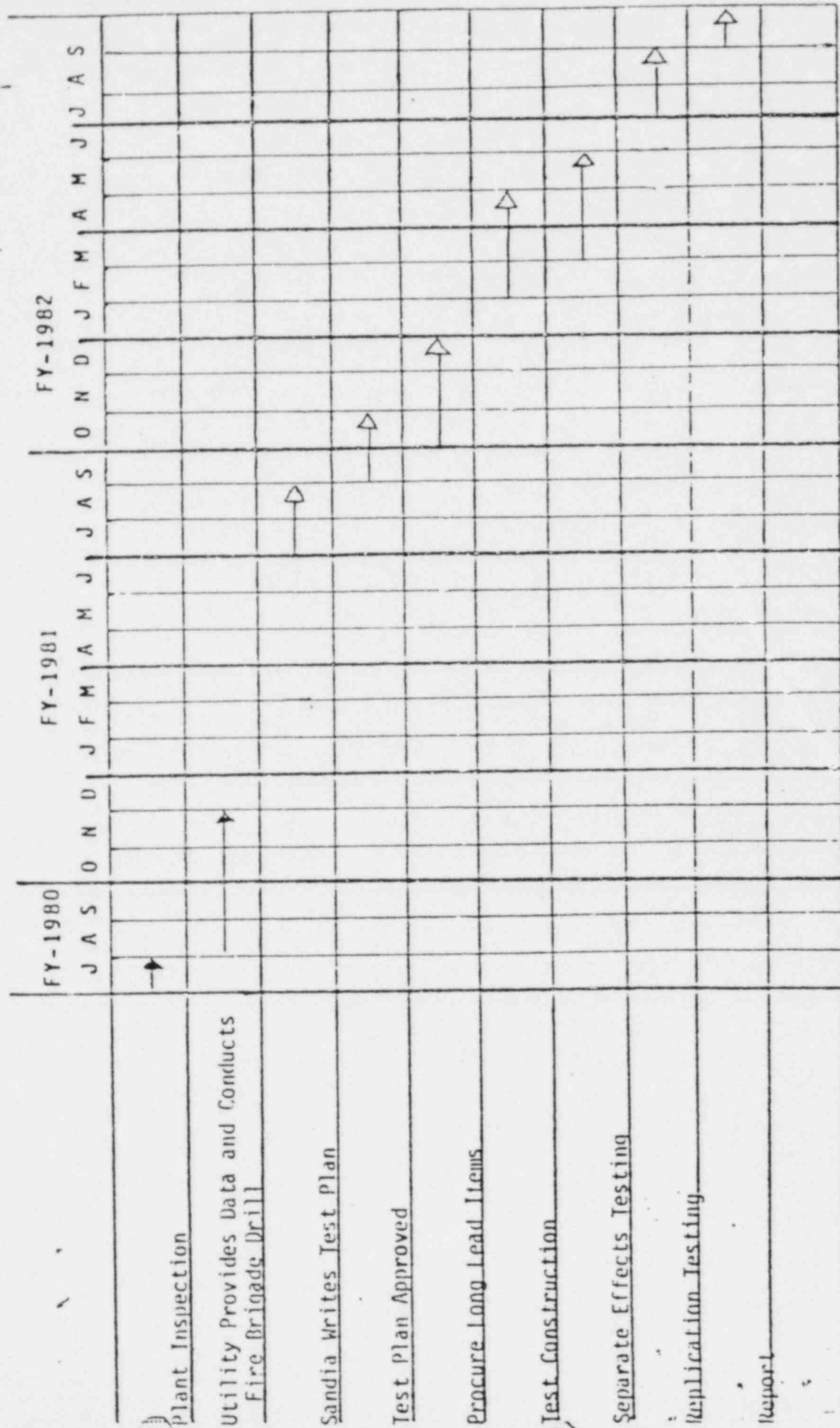
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Schedule for

Replication Testing of Brunswick Inlake Structure Basement

June 1, 1981

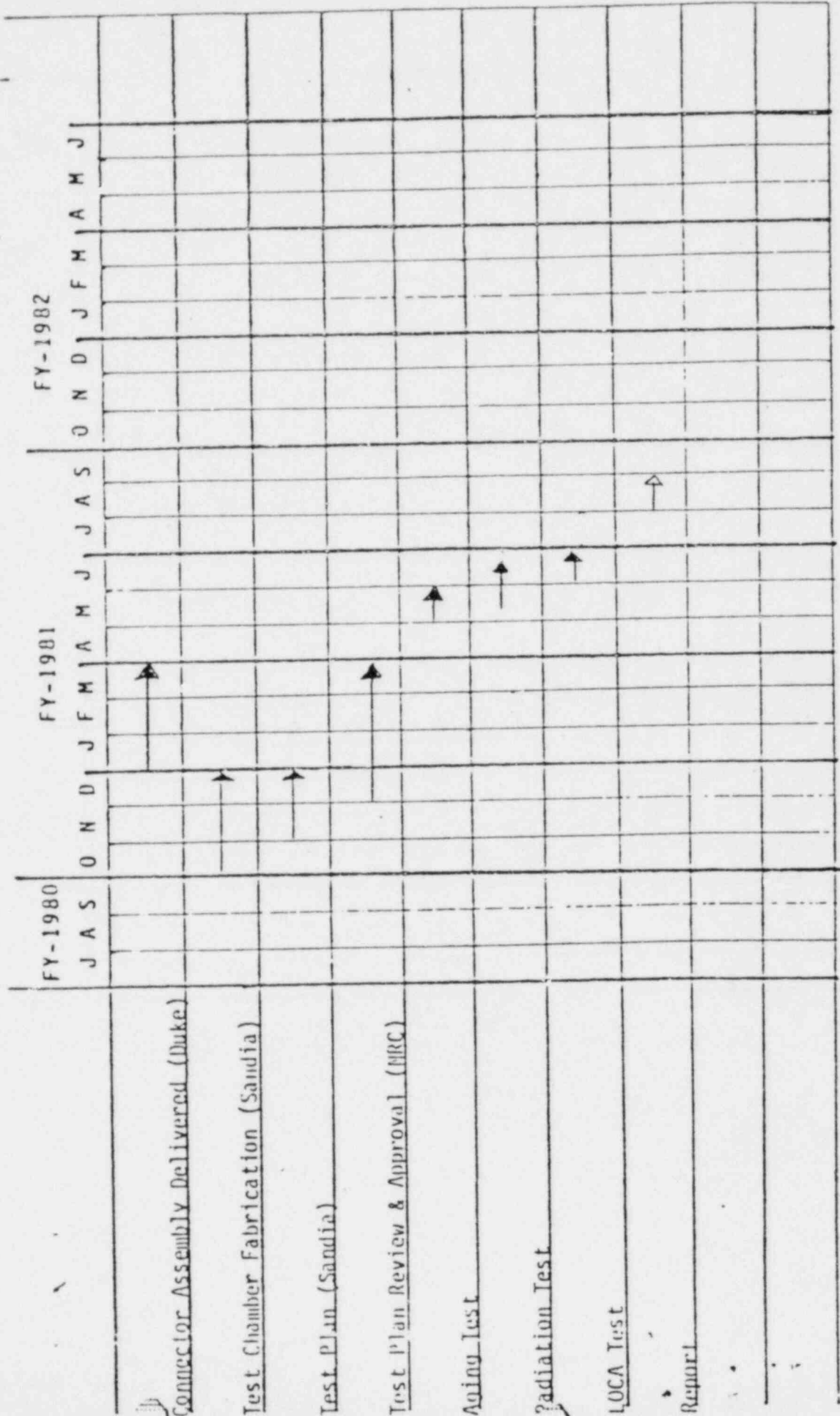


Complete
 Scheduled

Schedule for

Duke Power Connector Verification Test

June 1, 1981



Complete
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