



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

RHODE ISLAND ATOMIC ENERGY COMMISSION
Rhode Island Nuclear Science Center
16 Reactor Road
Narragansett, RI 02882-1165

16 August 2004

Docket No. 50-193

Mr. Daniel Hughes, Project Manager
Non-Power Reactors, Decommissioning and
Environmental Project Directorate
Division of Reactor Projects - III/IV/V
U. S. Nuclear Regulatory Commission (NRC)
Washington, D. C. 20555

Dear Mr. Hughes :

This letter is in response to our telephone conversation of 13 August 2004 regarding the Rhode Island Atomic Energy Commission request to change the License R-95 surveillance specification concerning the inspection of core components, from an annual inspection cycle, to a five year cycle. This request was submitted in conjunction with two other change requests that you have indicated need further consideration (see enclosure). We request that you separate these requests so that we can move forward with the approval of the core component inspection cycle change. We will continue to work with you to resolve the issues associated with the other change requests.

Thank you for your attention to this matter. If there are any questions, please call me at (401)789-9391.

Sincerely,

A handwritten signature in cursive script that reads "Michael J. Davis".

Michael J. Davis
Reactor Supervisor

enc: 20 November 2003 Letter to Mr. Marvin Mendonca

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A020

November 20, 2003

Docket No. 50-193

Mr. Marvin Mendonca, Senior Project Manager
Non-Power Reactors, Decommissioning and
Environmental Project Directorate
Division of Reactor Projects - III/IV/V
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Mendonca:

This letter concerns revision of the Rhode Island Atomic Energy Commission License R-95. The following three changes to the Technical Specifications are requested:

(1) To change the following surveillance specification items concerning the inspection of the core components from annually to a five year cycle.

Surveillance specifications	4.9.a. Beryllium Reflectors (page 38)
	4.9.b. LEU Fuel Elements (page 39)

Basis for this change: The Technical Specifications require an annual test and check of the above surveillances of core components (54 elements - [fuel and reflector]). The annual inspection of irradiated fuel elements consists of visually inspecting the elements for cracking and/or swelling. Inspections of fuel element are conducted with the element hanging about ten feet below the pool water level to reduce dose rates to personnel. Due to the construction of a fuel element, these inspections are of minimal value as one can only see the two outside surfaces of the outside fuel plates on anyone fuel element. Each fuel element has 42 fuel plate surfaces that cannot be visually inspected with any confidence in the results.

The annual inspection interval of these tests and checks create too many chances to damage and/or drop an element with almost no chance of sighting any swollen or cracked element. To minimize these chances, the core components should be visually inspected and functionally fit into the core grid box on a continuing basis – approximately eleven elements (three fuel & eight reflectors) per year, ideally, during

normal core configuration changes and experiments. This frequency will result in the test and checks of all the elements of the core are completed within a five-year period.

The Technical Specification (4.3.a.3) currently requires that the primary coolant water be analyzed weekly to detect a ruptured element. This technical specification requirement provides for the most sensitive method to discover a failed element.

(2) To change the following Reactor Safety System specification:

- a. Add paragraph 3.2.5. – ‘At least one radiation monitor on the experimental level of the reactor building and one monitor over the reactor pool are operable and capable of warning personnel of high radiation levels.’
- b. Remove listing of area monitors and the continuous air monitor from table 3.2.
- c. Add note to table 3.2 – ‘Grab sampling may be substituted for monitoring operations for up to eight hours in the event of a monitor failure.’
- d. Add text to the bases: page 16.

Basis for this change: The current Technical Specification requires a minimum of two radiation monitors to warn personnel of abnormal radiation levels. However, the current Technical Specification is ambiguous and fails to provide a practical alternative in the event of monitor failure. The change ensures that monitors are provided to cover the two main experimental areas within the reactor area. Failure of either monitor necessitates grab sampling coverage until the monitor can be fixed or the risk is terminated by normal reactor shutdown.

(3) To change page 42, paragraph 6.1.2

from: ‘An operator or senior operator licensed pursuant to 10CFR55 shall be present in the control room unless the reactor is secured as defined in these specifications. The minimum operating crew shall be two individuals.’

to: ‘An operator or senior operator licensed pursuant to 10CFR55 shall be present in the control room unless the reactor is shutdown as defined in these specifications. The minimum operating crew shall be two individuals.’

Basis for this change: To allow the reactor operator to leave the control room in order to conduct routine pre-checks of systems and experiments at the pool level without having to turn the control console master switch to the off position.

Enclosed is an original and changed pages, (changes identified with mark in right margin), of the Technical Specifications. This change is submitted as amendment # 29.

Mr. Marvin Mendonca
November 20, 2003
Page 3

If there are any questions regarding these changes to the Technical Specifications, you can reach me at (401) 789-9391.

Sincerely,

Terry Tehan, Ph.D
RI Atomic Energy Commission, Director

cc: Craig Bassett, U.S. NRC, Region 2