Attachment 1

Haddam Neck Plant

Proposed Revision to Technical Specifications

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January 1994

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## REACTOR COOLANT SYSTEM

## 3/4.4.12 FAILED FUEL RODS

## LIMITING CONDITION FOR OPERATION

3.4.12 The total estimated number of failed fuel rods shall not exceed 160, for more than 7 consecutive days of steady state\*, power operation.

APPLICABILITY: MODE 1

ACTION: With the estimated number of failed fuel rods greater than 160 for more than 7 consecutive days of steady state power operation, be in HOT STANDBY within 6 hours.

#### SURVEILLANCE REQUIREMENTS

- 4.4.12.1 The total number of failed fuel rods shall be determined using radiochemistry data for I-131 and noble gases:
  - a) Initially, after 20 days of steady state power operation after refueling or restart whenever the reactor has been subcritical for more than 48 hours.
  - b) At least once per 14 days when the calculated number of failed fuel rods is less than 50, after the initial calculation performed in Specification 4.4.12.1.a.
  - c) At least once per 7 days when the calculated number of failed fuel rods is between 50 and 100, after the initial calculation performed in Specification 4.4.12.1.a.
  - d) At least once per 24 hours when the calculated number of failed fuel pods is greater than 100, after the initial calculation performed in Specification 4.4.12.1.a.

\*For the purpose of this Specification, steady state operation is operation within  $\pm$  5% of the average thermal power during 24 consecutive hours of operation.

The provisions of Specification 4.0.4 are not applicable.



#### REACTOR COOLANT SYSTEM

BASES

## 3/4.4.1 REACTOR COOLANT SYSTEM VENTS (Continued)

cooling. The OPERABILITY of at least one RCS vent path from the reactor vessel head and the pressurizer steam space ensures the capability exists to perform this function.

The valve redundancy of the RCS vent paths serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a vent valve, power supply or control system does not prevent isolation of the vent path.

The function, capability and testing requirements of the RCS vents are consistent with the requirements of Item II.B.1 of NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

#### 3/4.4.12 FAILED FUEL RODS

As a result of the Cycle 15 debris induced fuel failures, a method has been-developed to monitor the debris type of failure in addition to the more traditional types of failures. This method uses the I-131 and noble gas specific activities to estimate the total number of fuel rod failures as a result of traditional failure modes such as pellet/cladding interaction and as a result of debris damage. The correlation using the I and Xe data is based on a release rate of Xe and empirical data obtained during past operating cycles. The limit of 160 failed fuel rods ensures that the post transient iodine spiking levels remain within the assumptions of design basis radiological calculations.

Attachment 2

Haddam Neck Plant

Proposed Revision to Technical Specifications

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## 3/4.4.11 REACTOR COOLANT SYSTEM VENTS (Continued)

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The valve redundancy of the RCS vent paths serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a vent valve, power supply or control system does not prevent isolation of the vent path.

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