

ATTACHMENT TO AEP:NRC:0584B
DONALD C. COOK NUCLEAR PLANT UNIT NOS. 1 AND 2
REACTOR COOLANT SYSTEM VENTS
TECHNICAL SPECIFICATIONS

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REACTOR COOLANT SYSTEM

REACTOR COOLANT VENT SYSTEM

REACTOR VESSEL HEAD VENTS

LIMITING CONDITION FOR OPERATION

3.4.12.1 Both Reactor Vessel head vent paths, each consisting of two remotely operated valves in series, powered from IE DC busses, shall be OPERABLE and closed.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one of the Reactor Vessel head vent paths inoperable, operation in Modes 1, 2, 3 or 4 may continue, provided the second vent path remains operable and the inoperable vent path is maintained closed with power removed from the valve actuators of all the remotely-operated valves in the inoperable vent path.
- b. With both of the Reactor Vessel head vent paths inoperable, operation in Modes 1, 2, 3 or 4 may continue, provided the inoperable vent paths are maintained closed with power removed from the valve actuators of all the remotely-operated valves in both vent paths; restore one inoperable vent path within 72 hours or be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. When one vent path is restored to OPERABLE status, operation in Modes 1, 2, 3 or 4 may resume.
- c. If operation under Action Item (a) above is required for a continuous period of 30 days or longer, a special report must be sent to the Commission explaining the circumstances of why such operation is required.
- d. Entry into Action (a) or (b) is not a Reportable Event per 10 CFR 50.73 provided the requirements of the Technical Specification are adhered to, and the reason for entry into the Action Statement does not have generic implications as judged by the Plant Manager.
- e. The provisions of Specification 3.0.4 are not applicable.

REACTOR COOLANT SYSTEM

REACTOR COOLANT VENT SYSTEM

REACTOR VESSEL HEAD VENTS

SURVEILLANCE REQUIREMENTS

4.4.12.1 Both Reactor Vessel head vent paths shall be demonstrated OPERABLE[#] at least once per 18 months by:

1. Verifying the common manual isolation valve in the Reactor vessel head vent is sealed in the open position.
2. Cycling each of the remotely operated valves in each path through at least one complete cycle of full travel from the Control Room while in Modes 5 or 6.
3. Verifying flow through both of the Reactor Vessel head vent paths during venting operation, while in Modes 5 or 6.

Surveillance requirements to demonstrate the operability of each Reactor Vessel head vent path will be performed the next time the unit enters MODES 5 or 6 following the issuance of this Technical Specification, and after the appropriate Plant procedures have been written.

REACTOR COOLANT SYSTEM

REACTOR COOLANT VENT SYSTEM

PRESSURIZER STEAM SPACE VENTS

LIMITING CONDITION FOR OPERATION

3.4.12.2 Both Pressurizer steam space vent paths, each consisting of two remotely operated valves in series, powered from IE DC busses, shall be OPERABLE and closed.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one of the Pressurizer steam space vent paths inoperable, operation in Modes 1, 2, 3 or 4 may continue, provided the second vent path remains operable and the inoperable vent path is maintained closed with power removed from the valve actuators of all the remotely-operated valves in the inoperable vent path.
- b. With both of the Pressurizer steam space vent paths inoperable, operation in Modes 1, 2, 3, or 4 may continue, provided the inoperable vent paths are maintained closed with power removed from the valve actuators of all the remotely-operated valves in both vent paths; restore one inoperable vent path within 72 hours or be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. When one vent path is restored to OPERABLE status, operation in Modes 1, 2, 3 or 4 may resume.
- c. If operation under Action item (a) above is required for a continuous period of 30 days or longer, a special report must be sent to the Commission explaining the circumstances of why such operation is required.
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- e. The provisions of Specification 3.0.4 are not applicable.

REACTOR COOLANT SYSTEM

REACTOR COOLANT VENT SYSTEM

PRESSURIZER STEAM SPACE VENTS

SURVEILLANCE REQUIREMENTS

4.4.12.2 Both Pressurizer steam space vent paths shall be demonstrated OPERABLE[#] at least once per 18 months by:

1. Verifying the common manual isolation valve in the Pressurizer steam space vent is sealed in the open position.
2. Cycling each of the remotely operated valves in each path through at least one complete cycle of full travel from the Control Room while in Modes 5 or 6.
3. Verifying flow through both of the Pressurizer steam space vent paths during venting operation, while in Modes 5 or 6.

Surveillance requirements to demonstrate the operability of each Pressurizer steam space vent path will be performed the next time the unit enters MODES 5 or 6 following the issuance of this Technical Specification, and after the appropriate Plant procedures have been written.

REACTOR COOLANT SYSTEM

BASES

3.4.4.11 RELIEF VALVES

The power operated relief valves (PORV's) operate to relieve RCS pressure below the setting of the pressurizer code safety valves. These relief valves have remotely operated block valves to provide a positive shutoff capability should the relief valve become inoperable. The electrical power for both the relief valves and the block valves is supplied from an emergency power source to ensure the ability to seal this possible RCS leakage path.

3.4.4.12 REACTOR COOLANT VENT SYSTEM

The Reactor Coolant Vent System is provided to exhaust noncondensable gases and/or steam from the primary system that could inhibit natural circulation core cooling. It has been designed to vent a volume of Hydrogen approximately equal to one-half of the Reactor Coolant System volume in one hour at system design pressure and temperature.

The Reactor Coolant Vent System is comprised of the Reactor Vessel head vent system and the pressurizer steam space vent system. Each of these subsystems consists of a single line containing a common manual isolation valve inside containment, splitting into two parallel flow paths. Each flow path provides the design basis venting capacity and contains two IE DC powered solenoid isolation valves, which will fail closed. This valve configuration/redundancy serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a remotely-operated vent valve, power supply, or control system does not prevent isolation of the vent path. The pressurizer steam space vent system is independent of the PORV's and safety valves and is specifically designed to exhaust gases from the pressurizer in a very high radiation environment. In addition, the OPERABILITY of one Reactor Vessel head vent path and one Pressurizer steam space vent path will ensure that the capability exists to perform this venting function.

The function, capabilities, and testing requirements of the Reactor Coolant Vent System are consistent with the requirements of Item II.B.1 of NUREG-0737, "Clarification of TMI Action Plan Requirement," November 1980.

REACTOR COOLANT SYSTEM

REACTOR COOLANT VENT SYSTEM

REACTOR VESSEL HEAD VENTS

LIMITING CONDITION FOR OPERATION

3.4.12.1 Both Reactor Vessel head vent paths, each consisting of two remotely operated valves in series, powered from IE DC busses, shall be OPERABLE and closed.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one of the Reactor Vessel head vent paths inoperable, operation in Modes 1, 2, 3 or 4 may continue, provided the second vent path remains operable and the inoperable vent path is maintained closed with power removed from the valve actuators of all the remotely-operated valves in the inoperable vent path.
- b. With both of the Reactor Vessel head vent paths inoperable, operation in Modes 1, 2, 3 or 4 may continue, provided the inoperable vent paths are maintained closed with power removed from the valve actuators of all the remotely-operated valves in both vent paths; restore one inoperable vent path within 72 hours or be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. When one vent path is restored to OPERABLE status, operation in Modes 1, 2, 3 or 4 may resume.
- c. If operation under Action Item (a) above is required for a continuous period of 30 days or longer, a special report must be sent to the Commission explaining the circumstances of why such operation is required.
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REACTOR COOLANT SYSTEM

REACTOR COOLANT VENT SYSTEM

REACTOR VESSEL HEAD VENTS

SURVEILLANCE REQUIREMENTS

4.4.12.1 Both Reactor Vessel head vent paths shall be demonstrated OPERABLE[#] at least once per 18 months by:

1. Verifying the common manual isolation valve in the Reactor vessel head vent is sealed in the open position.
2. Cycling each of the remotely operated valves in each path through at least one complete cycle of full travel from the Control Room while in Modes 5 or 6.
3. Verifying flow through both of the Reactor Vessel head vent paths during venting operation, while in Modes 5 or 6.

Surveillance requirements to demonstrate the operability of each Reactor Vessel head vent path will be performed the next time the unit enters MODES 5 or 6 following the issuance of this Technical Specification, and after the appropriate Plant procedures have been written.

REACTOR COOLANT SYSTEM

REACTOR COOLANT VENT SYSTEM

PRESSURIZER STEAM SPACE VENTS

LIMITING CONDITION FOR OPERATION

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APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one of the Pressurizer steam space vent paths inoperable, operation in Modes 1, 2, 3 or 4 may continue, provided the second vent path remains operable and the inoperable vent path is maintained closed with power removed from the valve actuators of all the remotely-operated valves in the inoperable vent path.
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