

Docket No. 50-336
813577

Attachment 1

Millstone Nuclear Power Station, Unit No. 2
Proposed Changes to Technical Specifications
Refueling Operations

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REFUELING OPERATIONS

SPENT FUEL POOL TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.9.3.2 The spent fuel pool bulk temperature shall be maintained at less than or equal to 140°F.

APPLICABILITY: Whenever irradiated fuel is stored in the spent fuel pool.

ACTION:

With the above conditions not satisfied;

- a. Immediate initiate actions to restore the spent fuel pool temperature to less than or equal to 140°F, and
- b. Within one hour, suspend all fuel movement in the spent fuel pool, and
- c. Within one hour, isolate the spent fuel pool cleanup demineralizers, and
- d. At least once per 4 hours, record the spent fuel pool bulk temperature.

SURVEILLANCE REQUIREMENTS

4.9.3.2 The spent fuel pool bulk temperature shall be verified to be less than or equal to 140°F at least once per 12 hours.

3/4.9 REFUELING OPERATIONS

BASES

3/4.9.1 BORON CONCENTRATION

The limitations on reactivity conditions during REFUELING ensure that: 1) the reactor will remain subcritical during CORE ALTERATIONS, and 2) a uniform boron concentration is maintained for reactivity control in the water volume having direct access to the reactor vessel. These limitations are consistent with the initial conditions assumed for the boron dilution incident in the accident analyses.

3/4.9.2 INSTRUMENTATION

The OPERABILITY of the source range neutron flux monitors ensures that redundant monitoring capability is available to detect changes in the reactivity condition of the core.

3/4.9.3 DECAY TIME

The minimum requirement for reactor subcriticality prior to movement of irradiated fuel ensures that sufficient time has elapsed to allow the radioactive decay of the short-lived fission products. This decay time is consistent with the assumptions used in the accident analyses.

The requirement that the spent fuel pool bulk temperature be maintained below 140°F ensures that high water temperature will not degrade resin in the spent fuel pool demineralizers and that the temperature and humidity above the pool are compatible with personnel comfort and safety requirements. Additionally, the requirement ensures that the design temperature of the fuel pool cooling system, liner/building structures, and racks are not exceeded.

The requirement for the reactor to remain in MODE 5 or 6 until the most recent 1/3 core offload has decayed 504 hours ensures that alternate cooling is available during this time to cool the spent fuel pool should a failure occur in the spent fuel pool cooling system. The shutdown cooling (SDC) system is a high capacity system; that is, one train is sufficient to cool both the core and the spent fuel pool should a failure occur in the spent fuel pool cooling system within 504 hours from reactor shutdown.

3/4.9.4 CONTAINMENT PENETRATIONS

The requirements on containment penetration closure and OPERABILITY ensure that a release of radioactive material within containment will be restricted from leakage to the environment. The OPERABILITY and closure restrictions are sufficient to restrict radioactive material release from a fuel element rupture based upon the lack of containment pressurization potential while in the REFUELING MODE.

3/4.9.5 COMMUNICATIONS

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity condition during fuel or CEA movement within the reactor pressure vessel.