OYSTER CREEK NUCLEAR GENERATING STATION
PROVISIONAL OPERATING LICENSE NO. DPR-16
DOCKET NO. 50-219
TECHNICAL SPECIFICATION CHANGE REQUEST NO. 129

Applicant hereby requests the Commission to change Appendix A of the above captioned license as follows:

1. Sections to be changed:

   1.30, 1.31. 3.3 and 4.3

2. Extent of changes:

   To incorporate the requirements as committed to in the Integrated Plant Safety Assessment Report (NUREG-0822) Section 4.16.2 through the addition of Leak Rate Detection System operability requirements. In addition, this change will incorporate more restrictive Technical Specification requirements for unidentified leakage as committed to in response to IE Bulletin 82-03.

3. Changes requested:

   Replace old pages i, ii, 1.0-6, 3.3-2, 3.3-5, and 4.3-1a with new pages attached (same numbers) and add page 3.3-1a.

4. Discussion:

   Technical Specification Change Request No. 129 constitutes additional limitations and controls not presently included in the Technical Specifications. Copies of the modified pages are provided. This change will provide the appropriate action requirements in the Technical Specifications for inoperable leakage detection systems and the surveillance requirements for the leakage detection system. This change will also incorporate a more restrictive Technical Specifications requirement for unidentified leakage as committed to the Commission in our final response to IE Bulletin 82-03.

   In addition, the basis for section 3.3 has been corrected to reflect the actual existing plant configuration.

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Pursuant to 10 CFR 50.91 an analysis concerning significant hazards considerations is provided below:

1) Sections to be changed:

Sections 1.30, 1.31, 3.3, and 4.3

2) Extent of changes:

To incorporate the requirements as committed to in the Integrated Plant Safety Assessment Report (NUREG-0822) Section 4.16.2 and in response to IE Bulletin 82-03.

3. Discussion:

Examples of amendments that are considered not likely to involve significant hazards considerations were provided in the Federal Register on April 6, 1983 (48FR 14870). Technical Specification Change Request No. 129 meets the provisions of example (ii) (as referenced above) in that this change constitutes an additional limitation, restriction, or control not presently included in the Technical Specifications. Copies of modified pages i, ii, 1.0-6, 3.3-1a, 3.3-2, 3.3-5, and 4.3-1a are provided. This change will provide the appropriate action requirements in the Technical Specifications for inoperable leakage detection systems and the surveillance requirements for the leakage detection system. This change will also incorporate a more restrictive Technical Specification requirement for unidentified leakage as committed to the Commission in our final response to IE Bulletin 82-03.

4. Determination:

We have determined that the subject change request involves no significant hazards in that operation of the Oyster Creek Nuclear Generating Station in accordance with Technical Specification Change Request No. 129 would not:

1) Involve a significant increase in the probability or the consequences of an accident previously evaluated; or

2) Create the possibility of a new or different kind of accident from any previously evaluated; or

3) Involve a significant reduction in a margin of safety.

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*Issued by NRC Order dated 10-24-80

1.26 FRACTION OF LIMITING POWER DENSITY (FLPD)

The fraction of limiting power density is the ratio of the linear heat generation rate (LHGR) existing at a given location to the design LHGR for that bundle type.

1.27 MAXIMUM FRACTION OF LIMITING POWER DENSITY (MFLPD)

The maximum fraction of limiting power density is the highest value existing in the core of the fraction of limiting power density (FLPD).

1.28 FRACTION OF RATED POWER (FRP)

The fraction of rated power is the ratio of core thermal power to rated thermal power.

1.29 TOP OF ACTIVE FUEL (TAF) - 353.3 inches above vessel zero.

1.30 IDENTIFIED LEAKAGE

IDENTIFIED LEAKAGE is that leakage which is collected in the primary containment equipment drain tank and eventually transferred to radwaste for processing.

1.30 UNIDENTIFIED LEAKAGE

UNIDENTIFIED LEAKAGE is that leakage which is collected in the primary containment sump and eventually transferred to radwaste for processing.

D. Reactor Coolant System Leakage

1. Reactor coolant system leakage shall be limited to:

   a. 5 gpm unidentified leakage
   b. 25 gpm total (identified and unidentified)
   c. 2 gpm increase in unidentfied leakage rate within any 24 hour period while operating at steady state power

2. With the reactor coolant system leakage greater than the limits in 3.3.D.1:

   a. Reduce the leakage to within the acceptable limits within 8 hours or place the reactor in the shutdown condition within the next 12 hours and be in the cold shutdown condition within the following 24 hours.

3. For determination of unidentified leakage, the primary containment sump flow monitoring system shall be operable except as specified below:

   a. With the primary containment sump flow integrator inoperable:

      1. Restore it to operable status within 7 days.
      2. Calculate the unidentified leakage rate utilizing an acceptable alternate means as specified in plant procedures.

   b. If Specification 3.3.D.3.a cannot be met, place the reactor in the shutdown condition within the next 12 hours.

4. For determination of identified leakage, the primary containment equipment drain tank monitoring system shall be operable except as specified below:

   a. With the primary containment equipment drain tank monitoring system inoperable:

      1. Restore it to operable status within 7 days.

      2. Calculate the identified leakage rate utilizing an acceptable alternate means as specified in plant procedures.

   b. If Specification 3.3.D.4.a cannot be met, place the reactor in the shutdown condition within the next 12 hours.

E. Reactor Coolant Quality

1. The reactor coolant quality shall not exceed the following limits during power operation with steaming rates to the turbine-condenser of less than 100,000 pound per hour.

conductivity	2 u mho/cm
chloride ion	0.1 ppm

2. The reactor coolant quality shall not exceed the following limits during power operation with steaming rates to the turbine-condenser of at least 100,000 pounds per hour.

conductivity	10 mho/cm
chloride ion	1.0 ppm

3. If Specification 3.3.E.1 and 3.3.E.2 cannot be met, the reactor shall be placed in the cold shutdown condition.

F. Recirculation Loop Operability

1. The reactor shall not be operated with one or more recirculation loops out of service except as specified in Specification 3.3.F.2.

2. Reactor operation with one idle recirculation loop is permitted provided that the idle loop is not isolated from the reactor vessel.

3. If Specification 3.3.F.1 and 3.3.F.2 are not met the reactor shall be placed in the cold shutdown condition within 24 hours.

The drywell floor drain sump and equipment drain tank provide the primary means of leak detection[9,10]. Identified leakage is that from valves and pumps in the reactor system and from the reactor vessel head flange gasket. Leakage through the seals of this equipment is piped to the drywell equipment drain tank. Leakage from other sources is classified as unidentified leakage and is collected in the drywell floor drain sump. Leakage which does not flash in a vapor will drain in the sump. The vapor will be condensed in the drywell ventilation system and routed to the sump.

Condensate cannot leave the sump or the drywell equipment drain tank unless the respective pumps are running. The sump and the drain tank are provided with two pumps each. Alarms are provided for the sump that will actuate on a predetermined pumpout rate [10] and will be set to actuate at a leakage that is less than the unidentified leakage limit of 5 gpm.

Additional qualitative information [10] is available to the operator via the monitored drywell atmospheric condition. However, this information is not quantitative since fluctuation in atmospheric conditions are normally expected, and quantitative measurements are not possible. The temperature of the closed cooling water which serves as coolant for the drywell ventilation system is monitored and also provides information which can be related to reactor coolant system leakage [9]. Additional protection is provided by the drywell high pressure scram which would be expected to be reached within 30 minutes of a steam leak of about 12 gpm[12].

During a loss of offsite AC power, the control rod drive hydraulic pumps, which are powered by the diesels, each can supply 110 gpm water makeup to the reactor vessel. A 25 gpm limit for total leakage, identified and unidentified, was established to be less than the 110 gpm makeup of a single rod drive hydraulic pump to avoid the use of the emergency core cooling system in the event of a loss of normal AC power.

Materials in the primary system are primarily 304 stainless steel and zircaloy fuel cladding. The reactor water chemistry limits are placed upon conductivity and chloride concentration since conductivity is measured continuously and gives an indication of abnormal conditions or the presence of unusual materials in the coolant, while chloride limits are specified to prevent stress corrosion cracking of stainless steel.

F. Primary Coolant System Pressure Isolation Valves

Specification:

1. Periodic leakage testing (a) on each valve listed in table 4.3.2 shall be accomplished prior to exceeding 600 psig reactor pressure every time the plant is placed on the cold shutdown condition for refueling, each time the plant is placed in a cold shutdown conditions for 72 hours if testing has been been accomplisned in the preceeding 9 months, and prior to returning the valve to service after maintenance, repair or replacement work is performed.

G. Reactor Coolant System Leakage

1. Unidentified leakage rate shall be calculated at least once every 4 hours.

2. Total leakage rate (identified and unidentified) shall be calculated at least once every 8 hours.

3. A channel calibration of the primary containment sump flow integrator and the primary containment equipment drain tank flow integrator shall be conducted at least once per 18 months.

(a) To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.