

ATTACHMENT 2

PROPOSED CHANGES

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4.2 PRIMARY COOLANT SYSTEM - LIMITING CONDITIONS FOR
OPERATION

| These specifications apply to the configuration
| and characteristics of the primary (helium) reactor
| coolant system excluding the steam generators which
| are included in Section 4.3.

OBJECTIVE

| To ensure the capability to cool the reactor
| core and to preserve the integrity of the fission
| product barriers, by defining the minimum OPERABLE
| equipment of the primary reactor coolant system and
| its characteristics.

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Specification LCO 4.2.1 - Number of OPERABLE

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Circulators

Limiting Condition For Operation

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Delete this specification in its entirety.

| Specification LCO 4.2.1.1 - Number of OPERABLE
| Circulators - POWER OPERATION

| Limiting Conditions for Operation

| There shall be at least one OPERABLE circulator
| in each loop.

| APPLICABILITY: POWER OPERATION

| ACTION

- | a) With both circulators in a loop
| inoperable, the reactor shall be in LOW
| POWER or SHUTDOWN within (24) hours,
| and remain in that condition until at
| least one circulator in that loop can
| be restored to an OPERABLE status.
- | b) With only one of four circulators
| OPERABLE, the reactor shall be in LOW
| POWER or SHUTDOWN within the next (6)
| hours.

| NOTE: A circulator shall be considered
| OPERABLE if the following conditions or
| system requirements are met for that
| circulator:

- | 1. Emergency Feedwater and Boosted
| Firewater are available to drive
| the water turbine and capability
| for turbine water drainage exists.
| The Emergency Feedwater Header,
| Emergency Condensate Header, or
| both Emergency Water Booster pumps
| may be inoperable for up to 24
| hours without the helium circulator
| being considered inoperable.

| Basis For Specification LCO 4.2.1.1

| The requirements for an OPERABLE circulator
| specified above provide for adequate circulator
| water turbine supply and circulator auxiliary
| supplies to assure safe shutdown cooling.

| Each independent bearing water system provides a
| continuous supply of bearing water to the two
| circulators in each primary cooling loop. In
| addition, two gas pressurized bearing water
| accumulators (one each for the two circulators in
| each primary coolant loop) are provided. These
| accumulators contain sufficient water to permit
| circulator coast-down without circulator damage if
| both the normal and the backup bearing water
| supplies should fail.

| During rise-to-power operation to less than
| approximately 30% reactor power, the Emergency
| Feedwater Header may not be in service. This is to
| accommodate operational considerations. The header
| must be able to be made OPERABLE for driving the
| circulator water turbines.

| One circulator, operating with motive power from
| either,

| 1. Condensate or Boosted Firewater supplied via the
| emergency condensate header, or

| 2. Condensate or Boosted Firewater supplied via the
| emergency feedwater header,

| provides sufficient primary coolant circulation to
| assure SAFE SHUTDOWN COOLING. One circulator,
| OPERATING with motive power from feedwater, supplied
| via the emergency feedwater header, provides sufficient
| primary coolant circulation following a postulated
| depressurization accident. One circulator in each loop
| is specified to allow for a single failure in either
| the heat removal equipment or circulator auxiliary
| equipment which provides services to one loop. SAFE
| SHUTDOWN COOLING is discussed in the FSAR, Section
| 10.3.9.

| Specification LCO 4.2.1.2 - Number of OPERABLE
| Circulators - LOW POWER, SHUTDOWN, and REFUELING

| Limiting Conditions for Operation

| There shall be at least one OPERABLE circulator.
| (SEE NOTE 1)

| APPLICABILITY: LOW POWER, SHUTDOWN and REFUELING.

| ACTION:

| With all circulators inoperable, except as
| provided in NOTE 1,

| a) Insure that the reactor is shutdown and
| remains in that condition.

| b) Immediately initiate action to restore at
| least one circulator to an OPERABLE status.

NOTE: 1) All circulators may be made inoperable provided : 1) No operations are undertaken which will lead to a positive reactivity insertion, and 2) The calculated average core temperature does not exceed 760°F.

2) A circulator shall be considered OPERABLE in LOW POWER or SHUTDOWN if the following conditions or system requirements are met for that circulator:

a) Emergency Feedwater, or Emergency Condensate, or Boosted Firewater are available to drive the water turbine and the capability for turbine water drainage exists.

b) The normal bearing water system is OPERABLE.

| c) A source of makeup water to the
| bearing water surge tank is
| available.

| SURVEILLANCE REQUIREMENT(s): 5.2.7, 5.2.8, 5.2.9,
| 5.2.23.

| Basis For Specification LCO 4.2.1.2

| The requirements for one OPERABLE circulator, as
| specified, provide assurance that the capability for
| continuous core cooling is maintained.

| In the event that it is necessary to render all
| four circulators inoperable, the predetermined
| period of time shall be limited such that the
| average core temperature does not exceed 760°F.
| This temperature is the design steady state core
| inlet temperature.

| Specification LCO 4.2.2 - OPERABLE Circulator

| Limiting Condition For Operation

| Delete this specification in its entirety.

Specification LCO 4.2.3 - Turbine Water Removal Pump, Limiting Conditions for Operation

There shall be one operable turbine water removal pump during power operation.

Basis for Specification LCO 4.2.3

One turbine water removal pump has sufficient capacity to remove the water from two circulator water turbines. This is adequate for a safe shutdown cooling.

Specification LCO 4.2.4 - Service Water Pumps, Limiting Conditions for Operation

At least two service water pumps and the associated pump pit shall be operable during power operation.

Basis for Specification LCO 4.2.4

The availability of the service water system ensures the capability of supplying essential components with cooling water, as described in FSAR Sections 1.4, 10.3, and 14.4.

Specification LCO 4.2.5 - Circulating Water Makeup System, Limiting Conditions for Operation

At least two circulating water makeup pumps connectible to the essential bus shall be operable during power operation.

Basis for Specification LCO 4.2.5

Circulating water system makeup to the service water and fire protection system provides adequate makeup water to safely shut the reactor down from

ATTACHMENT 3

SIGNIFICANT HAZARDS ANALYSIS

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ANALYSIS

The existing Specifications LCO 4.2.1 and LCO 4.2.2 have been deleted. These Specifications were combined to incorporate the definition of an operable circulator. This Specification has then been divided into two specifications, one for operation above 2% power, and one for operation at or below 2% power.

The intent of the existing Specifications has been maintained and the new format has been adopted. The requirement to maintain at least one operable circulator at all times has been incorporated into the proposed version of LCO 4.2.1.2.

CONCLUSION

Based on the above evaluation, it is concluded that operation of Fort St. Vrain in accordance with the proposed changes will not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in any margin of safety.

Therefore, these changes will not increase the risk to the health and safety of the public nor do they involve any significant hazards considerations.