

ATTACHMENT A

PROPOSED CHANGE TO APPENDIX A

TECHNICAL SPECIFICATIONS TO OPERATING LICENSE

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CAUTION

REACTOR COOLANT SYSTEM

3/4.4.5 SPECIFIC ACTIVITY

LIMITING CONDITION FOR OPERATION

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ADMINISTRATIVE USE ONLY
IT SHALL NOT BE USED FOR
TENANCE, REPAIR, OR
MODIFICATION OF THE
EQUIPMENT WITHOUT THE
APPROPRIATE AUTHORITY

3.4.5 The specific activity of the primary coolant shall be limited to:

- a. Less than or equal to 0.2 microcurie per gram DOSE EQUIVALENT I-131, and
- b. Less than or equal to $100/\bar{E}$ microcuries per gram.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3 and 4.

ACTION:

- a. In OPERATIONAL CONDITIONS 1, 2 or 3 with the specific activity of the primary coolant;
 1. Greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131 but less than or equal to 4.0 microcuries per gram ^{operation may} ~~continue for up to 48 hours provided that the cumulative operating time under these circumstances does not exceed 800 hours in any consecutive 12 month period. With the total cumulative operating time at a primary coolant specific activity greater than or equal to 0.2 microcurie per gram DOSE EQUIVALENT I-131 exceeding 500 hours in any consecutive six month period, prepare and submit a special report to the Commission pursuant to Specification 6.6.C within 30 days indicating the number of hours of operation above this limit. The provisions of Specification 3.0.4 are not applicable.~~
 2. ~~Greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or for more than 800 hours cumulative operating time in a consecutive 12-month period, or greater than or equal to 4 microcuries per gram, be in at least HOT SHUTDOWN with the main steam line isolation valves closed within 12 hours.~~
 - 2.2 Greater than $100/\bar{E}$ microcuries per gram, be in at least HOT SHUTDOWN with the main steamline isolation valves closed within 12 hours.

In OPERATIONAL CONDITIONS 1, 2, 3 or 4, with the specific activity of the primary coolant greater than 0.2 microcurie per gram DOSE EQUIVALENT I-131 or greater than $100/\bar{E}$ microcuries per gram, perform the sampling and analysis requirements of Item 4a of Table 4.4.5-1 until the specific activity of the primary coolant is restored to within the limit. ~~A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.6.C. This report shall contain the results of the specific activity analyses and the time duration when the specific activity of the coolant exceeded 0.2 microcurie per gram DOSE EQUIVALENT I-131 together with the following additional information.~~

DOSE EQUIVALENT
I-131 for more than 48 hours during one continuous time interval or greater than 4.0 microcuries per gram DOSE EQUIVALENT I-131, be in at least HOT SHUTDOWN with the main steam line isolation valves closed within 12 hours.

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REACTOR COOLANT SYSTEM

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

c. In OPERATIONAL CONDITION 1 or 2, with:

1. THERMAL POWER changed by more than 15% of RATED THERMAL POWER in 1 hour^a, or
2. The off-gas level, prior to the holdup line, increased by more than 25,000 microcuries per second in one hour during steady state operation at release rates less than 100,000 microcuries per second, or
3. The off-gas level, prior to the holdup line, increased by more than 15% in 1 hour during steady state operation at release rates greater than 100,000 microcuries per second,

perform the sampling and analysis requirements of Item 4b of Table 4.4.5-1 until the specific activity of the primary coolant is restored to within its limit. ~~Prepare and submit to the Commission a Special Report pursuant to Specification 6.6.C at least once per 92 days containing the results of the specific activity analysis together with the below additional information for each occurrence.~~

Additional Information

1. ~~Reactor power history starting 48 hours prior to:~~
 - a) ~~The first sample in which the limit was exceeded, and/or~~
 - b) ~~The THERMAL POWER or off-gas level change.~~
2. ~~Fuel burnup by core region.~~
3. ~~Clean-up flow history starting 48 hours prior to:~~
 - a) ~~The first sample in which the limit was exceeded, and/or~~
 - b) ~~The THERMAL POWER or off-gas level change.~~
4. ~~Off-gas level starting 48 hours prior to:~~
 - a) ~~The first sample in which the limit was exceeded, and/or~~
 - b) ~~The THERMAL POWER or off-gas level change.~~

SURVEILLANCE REQUIREMENTS

4.4.5 The specific activity of the reactor coolant shall be demonstrated to be within the limits by performance of the sampling and analysis program of Table 4.4.5-1.

^a Not applicable during the Startup Test Program.

ADMINISTRATIVE CONTROLS

2. ANNUAL REPORTS ^(continued) ~~(Add the following to this section)~~ *Shall be included in the annual report along with*

The results of specific activity analysis in which the primary coolant exceeded the limits of Specification ~~3.4.0 (W and GE plants); 3.4.3 (D&W plants) or 3.4.5 (GE plants)~~. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

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REACTOR COOLANT SYSTEM

BASES

3/4.4.5 SPECIFIC ACTIVITY

The limitations on the specific activity of the primary coolant ensure that the 2 hour thyroid and whole body doses resulting from a main steam line failure outside the containment during steady state operation will not exceed small fractions of the dose guidelines of 10 CFR 100. The values for the limits on specific activity represent interim limits based upon a parametric evaluation by the NRC of typical site locations. These values are conservative in that specific site parameters, such as site boundary location and meteorological conditions, were not considered in this evaluation.

The ACTION statement permitting POWER OPERATION to continue for limited time periods with the primary coolant's specific activity greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131, but less than or equal to 4.0 microcuries per gram DOSE EQUIVALENT I-131, accommodates possible iodine spiking phenomenon which may occur following changes in THERMAL POWER. ~~Operation with specific activity levels exceeding 0.2 microcuries per gram DOSE EQUIVALENT I-131 but less than or equal to 4.0 microcuries per gram DOSE EQUIVALENT I-131 must be restricted to no more than 300 hours per year, approximately 10 percent of the unit's yearly operating time, since these activity levels increase the 2-hour thyroid dose at the site boundary by a factor of up to 20 following a postulated steam line rupture. The reporting of cumulative operating time over 500 hours in any 6 month consecutive period with greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131 will allow sufficient time for Commission evaluation of the circumstances prior to reaching the 300 hour limit.~~

~~Information obtained on iodine spiking will be used to assess the parameters associated with spiking phenomena. A reduction in frequency of isotopic analysis following power changes may be permissible if justified by the data obtained.~~

Closing the main steam line isolation valves prevents the release of activity to the environs should a steam line rupture occur outside containment.

The surveillance requirements provide adequate assurance that excessive specific activity levels in the reactor coolant will be detected in sufficient time to take corrective action.

REACTOR COOLANT SYSTEM

3/4.4.5 SPECIFIC ACTIVITY

LIMITING CONDITION FOR OPERATION

3.4.5 The specific activity of the primary coolant shall be limited to:

- a. Less than or equal to 0.2 microcurie per gram DOSE EQUIVALENT I-131, and
- b. Less than or equal to $100/\bar{E}$ microcuries per gram.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, and 4.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3 with the specific activity of the primary coolant;
 1. Greater than 0.2 microcurie per gram DOSE EQUIVALENT I-131 but less than or equal to 4 microcurie per gram, ~~operation may continue for up to 48 hours provided that the cumulative operating time under these circumstances does not exceed 800 hours in any consecutive 12-month period. With the total cumulative operating time at a primary coolant specific activity greater than or equal to 0.2 microcurie per gram DOSE EQUIVALENT I-131 exceeding 500 hours in any consecutive 6-month period, prepare and submit a special report to the Commission pursuant to Specification 6.6.C within 30 days indicating the number of hours of operation above this limit. The provisions of Specification 3.0.4 are not applicable.~~
 2. ~~Greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or for more than 800 hours cumulative operating time in a consecutive 12-month period, or greater than or equal to 4 microcuries per gram, be in at least HOT SHUTDOWN with the main steam line isolation valves closed within 12 hours.~~
 - 2.2 Greater than $100/\bar{E}$ microcuries per gram, be in at least HOT SHUTDOWN with the main steamline isolation valves closed within 12 hours.
- b. In OPERATIONAL CONDITION 1, 2, 3, or 4, with the specific activity of the primary coolant greater than 0.2 microcurie per gram DOSE EQUIVALENT I-131 or greater than $100/\bar{E}$ microcuries per gram, perform the sampling and analysis requirements of Item 4a of Table 4.4.5-1 until the specific activity of the primary coolant is restored to within the limit. ~~A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.6.C. This report shall contain the results of the specific activity analyses and the time duration when the specific activity of the coolant exceeded 0.2 microcurie per gram DOSE EQUIVALENT I-131 together with the following additional information.~~

DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or greater than 4.0 microcuries per gram DOSE EQUIVALENT I-131, be in at least HOT SHUTDOWN with the main steam line isolation valves closed within 12 hours.

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REACTOR COOLANT SYSTEM

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

c. In OPERATIONAL CONDITION 1 or 2, with:

1. THERMAL POWER changed by more than 15% of RATED THERMAL POWER in 1 hour^a, or
2. The off-gas level, prior to the holdup line, increased by more than 25,000 microcuries per second in one hour during steady state operation at release rates less than 100,000 microcuries per second, or
3. The off-gas level, prior to the holdup line, increased by more than 15% in 1 hour during steady state operation at release rates greater than 100,000 microcuries per second.

perform the sampling and analysis requirements of Item 4b of Table 4.4.5-1 until the specific activity of the primary coolant is restored to within its limit. ~~Prepare and submit to the Commission a Special Report pursuant to Specification 6.6.C at least once per 92 days containing the results of the specific activity analysis together with the below additional information for each occurrence.~~

Additional Information

- ~~1. Reactor power history starting 48 hours prior to:
a) The first sample in which the limit was exceeded, and/or
b) The THERMAL POWER or off-gas level change.~~
- ~~2. Fuel burnup by core region.~~
- ~~3. Clean-up flow history starting 48 hours prior to:
a) The first sample in which the limit was exceeded, and/or
b) The THERMAL POWER or off-gas level change.~~
- ~~4. Off-gas level starting 48 hours prior to:
a) The first sample in which the limit was exceeded, and/or
b) The THERMAL POWER or off-gas level change.~~

SURVEILLANCE REQUIREMENTS

4.4.5 The specific activity of the reactor coolant shall be demonstrated to be within the limits by performance of the sampling and analysis program of Table 4.4.5-1.

*Not applicable during the Startup Test Program.

ADMINISTRATIVE CONTROLS

2. ANNUAL REPORTS ^(Continued) ~~(Add the following to this section)~~ *Shall be included in the annual report along with*

The results of specific activity analysis in which the primary coolant exceeded the limits of Specification ~~3.4.8 (W and GE plants), 3.4.9 (B&W plants) or 3.4.5 (GE plants)~~. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

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LaSalle - Unit 2
~~STS-ALL PLANTS~~

G-21a

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REACTOR COOLANT SYSTEM

BASES

3/4.4.5 SPECIFIC ACTIVITY

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The ACTION statement permitting POWER OPERATION to continue for limited time periods with the primary coolant's specific activity greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131, but less than or equal to 4.0 microcuries per gram DOSE EQUIVALENT I-131, accommodates possible iodine spiking phenomenon which may occur following changes in THERMAL POWER. ~~Operation with specific activity levels exceeding 0.2 microcuries per gram DOSE EQUIVALENT I-131 but less than or equal to 4.0 microcuries per gram DOSE EQUIVALENT I-131 must be restricted to no more than 800 hours per year, approximately 10 percent of the unit's yearly operating time, since these activity levels increase the 2 hour thyroid dose at the site boundary by a factor of up to 20 following a postulated steam line rupture. The reporting of cumulative operating time over 500 hours in any 6 month consecutive period with greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131 will allow sufficient time for Commission evaluation of the circumstances prior to reaching the 800 hour limit.~~

~~Information obtained on iodine spiking will be used to assess the parameters associated with spiking phenomena. A reduction in frequency of isotopic analysis following power changes may be permissible if justified by the data obtained.~~

Closing the main steam line isolation valves prevents the release of activity to the environs should a steam line rupture occur outside containment.

The surveillance requirements provide adequate assurance that excessive specific activity levels in the reactor coolant will be detected in sufficient time to take corrective action.

ATTACHMENT B

SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison has evaluated the proposed Technical Specification Amendment and determined that it does not represent a significant hazards consideration. Based on the criteria for defining a significant hazards consideration established in 10 CFR 50.92, operation of LaSalle County Station Units 1 and 2 in accordance with the proposed amendment will not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated because: the change merely relaxes the reporting requirements for primary coolant iodine spiking and eliminates the 800 hour/year cumulative run time limit (Operation with high iodine activity). The change does not alter the Technical Specification limits for primary coolant specific activity, nor does it change the 48 hour shutdown requirement.
- 2) Create the possibility of a new or different kind of accident from any accident previously evaluated because: the iodine limit has no effect on accident initiation.
- 3) Involve a significant reduction in the margin of safety because the change to relax the reporting requirements has no effect on the margin of safety, and the change to eliminate the 800 hour/year limit for operation with high iodine activity is justified based on improvements in nuclear fuel which have made this limit unnecessary.

Based on the preceding discussion, it is concluded that the proposed system change clearly falls within all acceptable criteria with respect to the system or component, the consequences of previously evaluated accidents will not be increased and the margin of safety will not be decreased. Therefore, based on the guidance provided in the Federal Register and the criteria established in 10 CFR 50.92(e), the proposed change does not constitute a significant hazards consideration.