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## Industry/TSTF Standard Technical Specification Change Traveler

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Delete incorrect Bases statement regarding I-131 equilibrium

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Priority/Classification 4) Change Bases

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NUREGs Affected:  1430  1431  1432  1433  1434

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**Description:**

An incorrect statement in the Background section of the Bases to LCO 3.7.19 is deleted.

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**Justification:**

The Bases to LCO 3.7.19, Secondary Specific Activity, state, "I-131, with a half-life of 8.04 days, concentrates faster than it decays, but does not reach equilibrium because of blowdown and other losses." This statement is incorrect. Secondary side I-131 will reach equilibrium but not at the same concentration as the RCS. This information is not needed to support the Specification and is deleted.

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### Revision History

#### OG Revision 0

Revision Status: Active

Next Action:

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Revision Proposed by: Calvert Cliffs

Revision Description: .  
Original Issue

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#### Owners Group Review Information

Date Originated by OG: 24-Oct-96

Owners Group Comments  
(No Comments)

Owners Group Resolution: Approved Date: 24-Oct-96

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#### TSTF Review Information

TSTF Received Date: 04-Nov-96 Date Distributed for Review 20-Jan-97

OG Review Completed:  BWOG  WOG  CEOG  BWROG

**TSTF Comments:**

WOG - Applicable, accepts  
BWOG - Applicable, accepts  
BWROG - Not Applicable, accepts

TSTF Resolution: Approved Date: 06-Mar-97

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4/2/98

**NRC Review Information**

NRC Received Date: 27-Mar-97 NRC Reviewer:

NRC Comments:

4/7/97 Rec'd pkg.

4/10/97 Forwarded to reviewer.

4/17/97 reviewer recommended modification. Proposed changes are incomplete; the sentence preceding the deleted sentence should also be deleted, since they both are linked and the statements are not needed to support the specification.

4/30/97 to C. Grimes for disposition.

5/2/97 returned to reviewer for reconsideration of recommendation.

6/3/97 - Reviewer recommended approval

6/6/97 - To M. Reinhart for disposition

Final Resolution: NRC Approves

Final Resolution Date: 31-Jul-97

**Incorporation Into the NUREGs**

File to BBS/LAN Date:

TSTF Informed Date:

TSTF Approved Date:

NUREG Rev Incorporated:

**Affected Technical Specifications**

Bkgnd 3.7.17 Bases	Secondary Specific Activity	NUREG(s)- 1430 Only
Bkgnd 3.7.18 Bases	Secondary Specific Activity	NUREG(s)- 1431 Only
Bkgnd 3.7.19 Bases	Secondary Specific Activity	NUREG(s)- 1432 Only

4/2/98

TSTF-173

## B 3.7 PLANT SYSTEMS

### B 3.7.17 Secondary Specific Activity

#### BASES

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#### BACKGROUND

Activity in the secondary coolant results from steam generator tube out-LEAKAGE from the Reactor Coolant System (RCS). Under steady state conditions, the activity is primarily iodines with relatively short half lives and, thus, indicative of current conditions. During transients, I-131 spikes have been observed, as well as increased releases of some noble gases. Other fission product isotopes, as well as activated corrosion products, in lesser amounts, may also be found in the secondary coolant.

A limit on secondary coolant specific activity during power operation minimizes releases to the environment because of normal operation, anticipated operational occurrences, and accidents.

This limit is lower than the activity value that might be expected from a 1 gpm tube leak (LCO 3.4.13, "RCS Operational Leakage") of primary coolant at the limit of 1.0  $\mu\text{Ci/gm}$  (LCO 3.4.16, "RCS Specific Activity"). The steam line failure is assumed to result in the release of the noble gas and iodine activity contained in the steam generator inventory, the feedwater, and the reactor coolant leakage. Most of the iodine isotopes have short half lives (i.e., < 20 hours). I-131, with a half life of 8.04 days, concentrates faster than it decays, but does not reach equilibrium because of blowdown and other losses.

With the specified activity limit, the resultant 2 hour thyroid dose to a person at the exclusion area boundary (EAB) would be about 0.79 rem if the main steam safety valves (MSSVs) are open for the 2 hours following a trip from full power.

Operating a unit at the allowable limits could result in a 2 hour EAB exposure of a small fraction of the 10 CFR 100 (Ref. 1) limits, or the limits established as the NRC staff approved licensing basis.

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B 3.7 PLANT SYSTEMS

TSTF-173

B 3.7.18 Secondary Specific Activity

BASES

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BACKGROUND

Activity in the secondary coolant results from steam generator tube outleakage from the Reactor Coolant System (RCS). Under steady state conditions, the activity is primarily iodines with relatively short half lives and, thus, indicates current conditions. During transients, I-131 spikes have been observed as well as increased releases of some noble gases. Other fission product isotopes, as well as activated corrosion products in lesser amounts, may also be found in the secondary coolant.

A limit on secondary coolant specific activity during power operation minimizes releases to the environment because of normal operation, anticipated operational occurrences, and accidents.

This limit is lower than the activity value that might be expected from a 1 gpm tube leak (LCO 3.4.13, "RCS Operational LEAKAGE") of primary coolant at the limit of [1.0]  $\mu\text{Ci/gm}$  (LCO 3.4.16, "RCS Specific Activity"). The steam line failure is assumed to result in the release of the noble gas and iodine activity contained in the steam generator inventory, the feedwater, and the reactor coolant LEAKAGE. Most of the iodine isotopes have short half lives, (i.e., < 20 hours). I-131, with a half life of 8.04 days, concentrates faster than it decays, but does not reach equilibrium because of blowdown and other losses.

With the specified activity limit, the resultant 2 hour thyroid dose to a person at the exclusion area boundary (EAB) would be about 0.58 rem if the main steam safety valves (MSSVs) open for 2 hours following a trip from full power.

Operating a unit at the allowable limits could result in a 2 hour EAB exposure of a small fraction of the 10 CFR 100 (Ref. 1) limits, or the limits established as the NRC staff approved licensing basis.

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TSTF-173

B 3.7 PLANT SYSTEMS

B 3.7.19 Secondary Specific Activity

BASES

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BACKGROUND

Activity in the secondary coolant results from steam generator tube outleakage from the Reactor Coolant System (RCS). Under steady state conditions, the activity is primarily iodines with relatively short half lives, and thus is indication of current conditions. During transients, I-131 spikes have been observed as well as increased releases of some noble gases. Other fission product isotopes, as well as activated corrosion products in lesser amounts, may also be found in the secondary coolant.

A limit on secondary coolant specific activity during power operation minimizes releases to the environment because of normal operation, anticipated operational occurrences, and accidents.

This limit is lower than the activity value that might be expected from a 1 gpm tube leak (LCO 3.4.13, "RCS Operational LEAKAGE") of primary coolant at the limit of 1.0  $\mu\text{Ci/gm}$  (LCO 3.4.16, "RCS Specific Activity"). The steam line failure is assumed to result in the release of the noble gas and iodine activity contained in the steam generator inventory, the feedwater, and reactor coolant LEAKAGE. Most of the iodine isotopes have short half lives (i.e., < 20 hours). I-131, with a half life of 8.04 days, concentrates faster than it decays, but does not reach equilibrium because of blowdown and other losses.

With the specified activity level, the resultant 2 hour thyroid dose to a person at the exclusion area boundary (EAB) would be about [.13] rem should the main steam safety valves (MSSVs) open for the 2 hours following a trip from full power.

Operating a unit at the allowable limits could result in a 2 hour EAB exposure of a small fraction of the 10 CFR 100 (Ref. 1) limits.

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