

2.0 SAFETY LIMITS (SLs)

The information in this section of the reference ABWR DCD, including all subsections, is incorporated by reference with the following departure.

STD DEP 16.2-1

2.2 SL Violations

With any SL violation, the following actions shall be completed within 2 hours:

- ~~2.2.1 Within 1 hour, notify the NRC Operations Center, in accordance with 10 CFR 50.72.~~
- ~~2.2.2 Within 2 hours:~~
 - ~~2.2.1 2.2.2.1 Restore compliance with all SLs; and~~
 - ~~2.2.2 2.2.2.2 Insert all insertable control rods.~~
- ~~2.2.3 Within 24 hours, notify the [General Manager—Nuclear Plant and Vice President Nuclear Operations] and the [offsite reviewers specified in Specification 5.5.2, “[Offsite] Review and Audit”].~~
- ~~2.2.4 Within 30 days, a Licensee Event Report (LER) shall be prepared pursuant to 10 CFR 50.73. The LER shall be submitted to the NRC, the [offsite reviewers specified in Specification 5.5.2], and the [General Manager Nuclear Plant and Vice President Nuclear Operations].~~
- ~~2.2.5 Operation of the unit shall not be resumed until authorized by the NRC.~~

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B 2.0 SAFETY LIMITS (SLs)

B 2.1.1 Reactor Core SLs

BASES

The information in this section of the reference ABWR DCD, including all subsections, is incorporated by reference with the following departure.

STD DEP 16.2-1

SAFETY LIMIT VIOLATIONS

~~2.2.1~~

~~If any SL is violated, the NRC Operations Center must be notified within 1 hour, in accordance with 10 CFR 50.72 (Ref. 3).~~

2.2.2

Exceeding an SL may cause fuel damage and create a potential for radioactive releases in excess of 10 CFR 100, "Reactor Site Criteria," limits (Ref. 4 3). Therefore, it is required to insert all insertable control rods and restore compliance with the SL within 2 hours. The 2 hour Completion Time ensures that the operators take prompt remedial action and also ensures that the probability of an accident occurring during this period is minimal.

~~2.2.3~~

~~If any SL is violated, the appropriate senior management of the nuclear plant and the utility shall be notified within 24 hours. The 24 hour period provides time for plant operators and staff to take the appropriate immediate action and assess the condition of the unit before reporting to the senior management.~~

~~2.2.4~~

~~If any SL is violated, a Licensee Event Report shall be prepared and submitted within 30 days to the NRC in accordance with 10 CFR 50.73 (Ref. 5). A copy of the report shall also be provided to the senior management of the nuclear plant, and the utility Vice President Nuclear Operations and the [offsite reviewers specified in Specification 5.5.2 ["Offsite Review and Audit"]]~~

SAFETY LIMIT
VIOLATIONS
(continued)

~~2.2.5~~

~~If any SL is violated, restart of the unit shall not commence until authorized by the NRC. This requirement ensures the NRC that all necessary reviews, analyses, and actions are completed before the unit begins its restart to normal operation.~~

REFERENCES

1. 10 CFR 50, Appendix A, GDC 10.
2. NEDE-24011-P-A-(latest approved revision).
- ~~3. 10 CFR 50.72.~~
3. ~~4.~~ 10 CFR 100.
- ~~5. 10 CFR 50.73.~~

B 2.0 SAFETY LIMITS (SLs)

B 2.1.2 Reactor Coolant System (RCS) Pressure SL

BASES

The information in this section of the reference ABWR DCD, including all subsections, is incorporated by reference with the following departures and supplements. The site-specific supplements partially address COL License Information Item 16.1.

STD DEP 16.2-1
STD DEP 16.2-2

APPLICABLE SAFETY ANALYSES

The RCS safety/relief valves and the Reactor Protection System Reactor Vessel Steam Dome Pressure - High Function have settings established to ensure that the RCS pressure SL will not be exceeded.

The RCS pressure SL has been selected such that it is at a pressure below which it can be shown that the integrity of the system is not endangered. The reactor pressure vessel is designed to ASME, Boiler and Pressure Vessel Code, Section III, ~~later 1989 Edition~~, ~~including excluding Addenda through the later 1989 Edition~~ (Ref. 5), which permits a maximum pressure transient of 110%, 9.48 MPaG, of design pressure 8.62 MPaG. The SL of 9.13 MPaG, as measured by the reactor steam dome pressure indicator, is equivalent to 9.48 MPaG at the lowest elevation of the RCS. The RCS pressure SL is selected to be the lowest transient overpressure allowed by the applicable codes.

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SAFETY LIMITS

The maximum transient pressure allowable in the RCS ~~pressure vessel~~ under the ASME Code, Section III, is 110% of design pressure. ~~The maximum transient pressure allowable in the RCS piping, valves, and fittings is 110% of design pressures of 8.62 MPaG for suction piping and 10.35 MPaG for discharge piping. The most limiting of these two allowances is the 110% of design pressure; therefore, the SL on maximum allowable RCS pressure is established at 9.48 MPaG, which equates to 9.13 MPaG reactor steam dome pressure.~~

STD DEP 16.2-1

SAFETY LIMITS
VIOLATIONS

~~2.2.1~~

~~If any SL is violated, the NRC Operations Center must be notified within 1 hour, in accordance with 10 CFR 50.72 (Ref. 6).~~

2.2.2

Exceeding the RCS pressure SL may cause immediate RCS failure and create a potential for radioactive releases in excess of 10 CFR 100, "Reactor Site Criteria," limits (Ref. 4). Therefore, it is required to insert all insertable control rods and restore compliance with the SL within 2 hours. The 2 hour Completion Time ensures that the operators take prompt remedial action.

~~2.2.3~~

~~If any SL is violated, the appropriate senior management of the nuclear plant and the utility shall be notified within 24 hours. The 24 hour period provides time for plant operators and staff to take the appropriate immediate action and assess the condition of the unit before reporting to the senior management.~~

~~2.2.4~~

~~If any SL is violated, a Licensee Event Report shall be prepared and submitted within 30 days to the NRC in accordance with 10 CFR 50.73 (Ref. 7). A copy of the report shall also be provided to the senior management of the nuclear plant, and the utility Vice President Nuclear Operations, and the [offsite reviewers specified in Specification 5.5.2-["Offsite Review and Audit"]].~~

~~2.2.5~~

~~If any SL is violated, restart of the unit shall not commence until authorized by the NRC. This requirement ensures the NRC that all necessary reviews, analyses, and actions are completed before the unit begins its restart to normal operation.~~

STD DEP 16.2-1

REFERENCES

1. 10 CFR 50, Appendix A, GDC 14, GDC 15, and GDC 28.
 2. ASME, Boiler and Pressure Vessel Code, Section III, Article NB-7000.
 3. Boiler and Pressure Vessel Code, Section XI, Article IW-5000.
 4. 10 CFR 100.
 5. *ASME, Boiler and Pressure Vessel Code, ~~later~~ 1989 Edition*, excluding Addenda, ~~later Edition~~.
 - ~~6. 10 CFR 50.72.~~
 - ~~7. 10 CFR 50.73.~~
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