

2.1 Limits Imposed on SRP Section II Acceptance Criteria by ABWR Standard Plant

The information in this section of the reference ABWR DCD, including all tables, is incorporated by reference with the following site-specific supplements in Table 2.1-1.

**Table 2.1-1 Limits Imposed on SRP Section II
Acceptance Criteria by ABWR Design**

The supplementary information, provided in the column marked "Discussion," consists of a statement as to whether the SRP limits specified for the reference ABWR design are met for the STP 3 & 4 site, and a roadmap to the FSAR sections where further discussion is provided.

| SRP Section | Subject | Limits | Discussion |
|--|--|---|---|
| Geography and Demography | | | |
| 2.1.1 | Site Location and Description | None | N/A |
| 2.1.2 | Exclusion Area Authority and Control | None | N/A |
| 2.1.3 | Population Distribution | None | N/A |
| Nearby Industrial, Transportation and Military Facilities | | | |
| 2.2.1-2.2.2 | Identification of Potential Hazards in Site Vicinity | Identify potential hazards in the site vicinity that have a probability of occurrence $>10^{-7}$ per year which produce: (1) missiles more energetic than the tornado missile spectra, or (2) pressure effects in excess of the design basis tornado. | The potential external hazards in the vicinity of the STP site are identified in Subsections 2.2S.1 and 2.2S.2. The only potential external hazard identified with a frequency near 1×10^{-7} was an aircraft accident with a conservatively calculated total impact frequency of 1.16×10^{-7} . |
| 2.2.3 | Evaluation of Potential Accidents | Evaluate only those potential hazards identified above. | An evaluation of the aircraft hazards that could impact the STP site is provided in Subsection 2.2S.2.8 2.2S.2.7.2. Although no other external hazards approach a frequency of 1×10^{-7} , other potential external hazards in the vicinity of the STP site are discussed in Subsection 2.2S.3. |

**Table 2.1-1 Limits Imposed on SRP Section II
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| SRP Section | Subject | Limits | Discussion |
|--------------------|--|---|--|
| Meteorology | | | |
| 2.3.1 | Regional Climatology | Per Table 2.0-1. | <p>The ABWR site parameters specified in Table 2.0-1 envelope the STP site specific characteristics related to regional climatology, including extreme wind speed, the tornado parameters, precipitation, and ambient design temperature. Further details are provided in Subsection 2.3S.1.</p> <p>The ABWR site parameters specified in Table 2.0-1 envelop the STP site-specific characteristics related to regional climatology, with the following exceptions, maximum rainfall rate and ambient design temperatures relative to three of the wet-bulb exceedance values. These departures are discussed in Table 2.0-2 (see also STP DEP T1 5.0-1).</p> <p>Further details on regional climatology are provided in Subsection 2.3S.1.</p> |
| 2.3.2 | Local Meteorology | None | N/A |
| 2.3.3 | Onsite Meteorological Measurements Program | None | N/A |
| 2.3.4 | Short-Term Diffusion Estimates for Accidental Atmospheric Releases | Show that the site meteorological dispersion values as calculated in accordance with Regulatory Guide 1.145, and compared to dose values given in Chapter 15, result in doses less than stipulated in 10 CFR 100 and the applicable portions of SRP Sections 11 and 15. | <p>The design basis accident doses calculated based on the STP site meteorological dispersion values are discussed in Subsections 15.2, 15.56, and 15.7. The calculated doses meet the dose limits specified in 10 CFR 100.</p> |

**Table 2.1-1 Limits Imposed on SRP Section II
Acceptance Criteria by ABWR Design (Continued)**

| SRP Section | Subject | Limits | Discussion |
|------------------------------|--|--|---|
| 2.3.5 | Long-Term Diffusion Estimates | None | N/A |
| Hydrology Engineering | | | |
| 2.4.1 | Hydraulic Description | Per Table 2.0-1. | The ABWR site parameters specified in Table 2.0-1 envelope envelop the STP site-specific characteristics related to hydrology. Further details are provided in Subsection 2.4S.1. |
| 2.4.2 | Floods | Per Table 2.0-1. | The maximum flood level for the STP site is discussed in Subsections 2.4S.2 and 2.4S.4 (see also Table 2.0-2 and STP DEP T1 5.0-1). Site-specific flood protection measures are described in Subsection 3.4.1.1.1. |
| 2.4.3 | Probable Maximum Flood on Streams and Rivers | None | N/A |
| 2.4.4 | Potential Dam Failures Seismically Induced | Demonstrate that failure of existing and potential upstream or downstream water control structures will not exceed flooding 30.5 cm below grade. | Failure of the Main Cooling Reservoir (MCR) would result in the worst case flood level, and exceeds the SRP limit for the reference ABWR design as discussed in Subsection 2.4S.4 (see also Table 2.0-2 and STP DEP T1 5.0-1). Site-specific flood protection measures are described in Subsection 3.4.1.1.1. |
| 2.4.5 | Probable Maximum Surge and Seiche Flooding | Probable maximum surge and seiche flooding level 30.5 cm below grade. | The probable maximum surge flooding level is within the SRP limit for the reference ABWR design. Flooding due to seiche effects is considered insignificant at the STP site. See Subsection 2.4S.5 for further details. |

**Table 2.1-1 Limits Imposed on SRP Section II
Acceptance Criteria by ABWR Design (Continued)**

| SRP Section | Subject | Limits | Discussion |
|-------------|---|--|---|
| 2.4.6 | Probable Maximum Tsunami | Probable maximum tsunami flooding level 30.5 cm below grade. | The probable maximum tsunami flooding level for the STP site is within the SRP limit for the reference ABWR design as discussed in Subsection 2.4S.6. |
| 2.4.7 | Ice Effects | None | N/A |
| 2.4.8 | Cooling Water Channels and Reservoirs | None | N/A |
| 2.4.9 | Channel Diversion | None | N/A |
| 2.4.10 | Flooding Protection Requirements | None | N/A |
| 2.4.11 | Cooling Water Supply | None | N/A |
| 2.4.12 | Groundwater | Per Table 2.0-1. | The groundwater depth in the power block areas for STP 3 & 4 is below the maximum groundwater level of 61 cm (2 ft) below grade as specified in Table 2.0-1. Further information is provided in FSAR Subsection 2.4S.12. |
| 2.4.13 | Accidental Releases of Liquid Effluent in Ground and Surface Waters | None | N/A |
| 2.4.14 | Technical Specifications and Emergency Operation Requirement | None | N/A |

**Table 2.1-1 Limits Imposed on SRP Section II
Acceptance Criteria by ABWR Design (Continued)**

| SRP Section | Subject | Limits | Discussion |
|---|---|--|--|
| Geology, Seismology and Geotechnical Engineering | | | |
| 2.5.1 | Basic Geology and Seismic Information | None | N/A |
| 2.5.2 | Vibratory Ground Motion | Per Table 2.0-1. | The ABWR DCD design parameters specified in Table 2.0-1 related to seismology are enveloped for the STP site. Further details are provided in Subsection 2.5S.2. |
| 2.5.3 | Surface Faulting | No faulting at or near the ground surface is accepted. | There is no potential for surface faulting through the STP 3 & 4 site footprint as discussed in Subsection 2.5S.3. |
| 2.5.4 | Stability of Subsurface Materials and Foundations | Per Table 2.0-1. | The ABWR site parameters specified in Table 2.0-1 envelope envelop the STP site-specific characteristics related to stability of subsurface materials and foundations. Further details are provided in Subsection 2.5S.4. |
| 2.5.5 | Surface of Slopes | None | N/A |