Table 2.0-1 Key Site Parameters (Sheet 1 of 6)

Meteorology	
Parameter Description	**Parameter Value**
Normal winter precipitation roof load (11)	50 lb/ft^2
Extreme winter precipitation roof load(12)	75 lb/ft^2
48-hr probable maximum winter precipitation (PMWP)	36 in.
Tornado maximum wind speed	230 mph
	184 mph maximum rotational
	46 mph maximum translational
Radius of maximum rotational speed	150 ft
Tornado maximum pressure drop	1.2 psi
Rate of Pressure drop	0.5 psi/s
Tornado-generated missile spectrum and associated velocities	15 ft long schedule 40 steel pipe moving horizontally at 135 ft/s(1)
	4,000 lb automobile moving horizontally at 135 ft/s(1)
	1 in diameter steel sphere moving horizontally at 26 ft/s(1)
Extreme wind speed (other than in tornado and hurricane)	155 mph for 3-second gusts at 33 ft above ground level based on 100-year return period, with importance factor of 1.15 for seismic category I and II structures
Design-Basis Hurricane Windspeed	160 mph for 3-second gusts at 33 ft above ground level, which corresponds to the exceedance frequency of 10^{-7} per year
Hurricane-generated missile spectrum and associated velocities	15 ft long schedule 40 steel pipe moving horizontally at 102 ft/s or vertically at 85 ft/s
	4,000 lb automobile moving horizontally at 135 ft/s or vertically at 85 ft/s
	1 in diameter steel sphere moving horizontally at 89 ft/s or vertically at 85 ft/s
Ambient design air temperature (1% annual exceedance maximum)	100°F dry bulb, 77°F coincident wet bulb, 81°F non-coincident wet bulb
Ambient design air temperature (0% ~~annual~~ exceedance maximum)	115°F dry bulb, 80°F coincident wet bulb, 86°F non-coincident wet bulb, historical limit excluding peaks <2 hr
Ambient design air temperature (1% annual exceedance minimum)	-10°F dry bulb

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Table 2.0-1 Key Site Parameters (Sheet 6 of 6)

Geology, Seismology, and Geotechnical Engineering	
Parameter Description	**Parameter Value**
Maximum slope for foundation-bearing stratum	20˚ from horizontal in untruncated strata
Safe-shutdown earthquake (SSE) ground motion	0.3 g peak ground acceleration
SSE (certified seismic design) horizontal ground response spectra	Regulatory Guide (RG) 1.60, enhanced spectra in high frequency range (see Figure 3.7.1-1)
SSE (certified seismic design) vertical ground response spectra	RG 1.60, enhanced spectra in high frequency range (see Figure 3.7.1-2)
Potential for surface tectonic deformation at site	None within the exclusion area boundary
Subsurface stability – minimum allowable static bearing capacity	15,000 lb/ft^2
Subsurface stability – minimum allowable dynamic bearing capacity, normal conditions plus SSE	~~60~~35,000 lb/ft^2
Subsurface stability – minimum shear wave velocity at SSE input at ground surface	1,000 ft/s
Subsurface stability – liquefaction potential	None (for seismic category I structures)
Minimum angle of internal friction for engineered fill and natural in-situ granular soil subgrades	35˚
Presence of fine-grained materials, i.e., silts and clays classified as ML, CL, MH, CH in the Unified Soil Classification System, within 6 in. of bottom of R/B Complex and T/B basemat	Permitted
Total settlement of R/B complex foundation during construction and operational life(14)(15)	~~6~~9.0 in.
Differential settlement across R/B complex foundation in any direction during construction and operational life(14)(15)	~~2.0~~5.5 in.
Maximum differential settlement between buildings during operational life(14)(1~~6~~5)	0.5 in.
Maximum tilt of R/B complex foundation generated during operational life of the plant(14)(1~~6~~5)	1/2000

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NOTES:

1. The specified missiles are assumed to have a vertical speed component equal to 2/3 of the horizontal speed.
2. These dispersion factors are chosen as the maximum values at all intake points.
3. These dispersion factors are chosen as the maximum values at all inleak points.
4. These dispersion factors are used for a loss-of-coolant accident (LOCA) and a rod ejection accident.
5. These dispersion factors are used for a LOCA, a rod ejection accident, a failure of small lines carrying primary coolant outside containment and a fuel-handling accident inside the containment.

6. These dispersion factors are used for a steam generator tube rupture, a steam system piping failure, a reactor coolant pump rotor seizure and a rod ejection accident.

7. These dispersion factors are used for a fuel handling accident occurring in the fuel storage and handling area.

8. These dispersion factors are used for a steam system piping failure.

9. These dispersion factors are used for a LOCA.

10. These dispersion factors are used for a rod ejection accident, a failure of small lines carrying primary coolant outside containment and a fuel-handling accident inside the containment.

11. Normal winter precipitation roof load is determined by converting ground snow load p_g in accordance with ASCE 7-05. The ground snow load p_g is based on the highest ground-level weight of:

- the 100-year return period snowpack,
- the historical maximum snowpack,
- the 100-year return period snowfall event, or
- the historical maximum snowfall event in the site region.

12. The extreme winter precipitation roof load is based on the sum of the normal ground level winter precipitation plus the highest weight at ground level resulting from either the extreme frozen winter precipitation event or the extreme liquid winter precipitation event. The extreme frozen winter precipitation event is assumed to accumulate on the roof on top of the antecedent normal winter precipitation event. The extreme liquid winter precipitation event may not accumulate on the roof, depending on the geometry of the roof and the type of drainage provided. The extreme winter precipitation roof load is included as live load in extreme loading combinations using the applicable load factor indicated in Design Control Document (DCD) Section 3.8.

13. Deleted.

14. Acceptable parameters for settlement without further evaluation.

15. ~~Settlements occurring during construction and operational life.~~Operational life of the plant is considered 60 years (including possible life extension). MIC-03-03-0 0057

~~16. Settlements occurring during operational life only.~~