



Integration of Safety into Design Appendix A

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Content



Adoption of ANS 2.26 and ASCE 43-05 for Seismic Design

Specification of DOE thresholds for implementation of Seismic Design Criteria (SDC) for collocated workers and public

Numerical criteria for Safety Significant SSC designation for collocated workers

Retention of 25 rem EG for Safety Class SSCs for public



Seismic Design



ANS 2.26: risk informed designation of SDCs

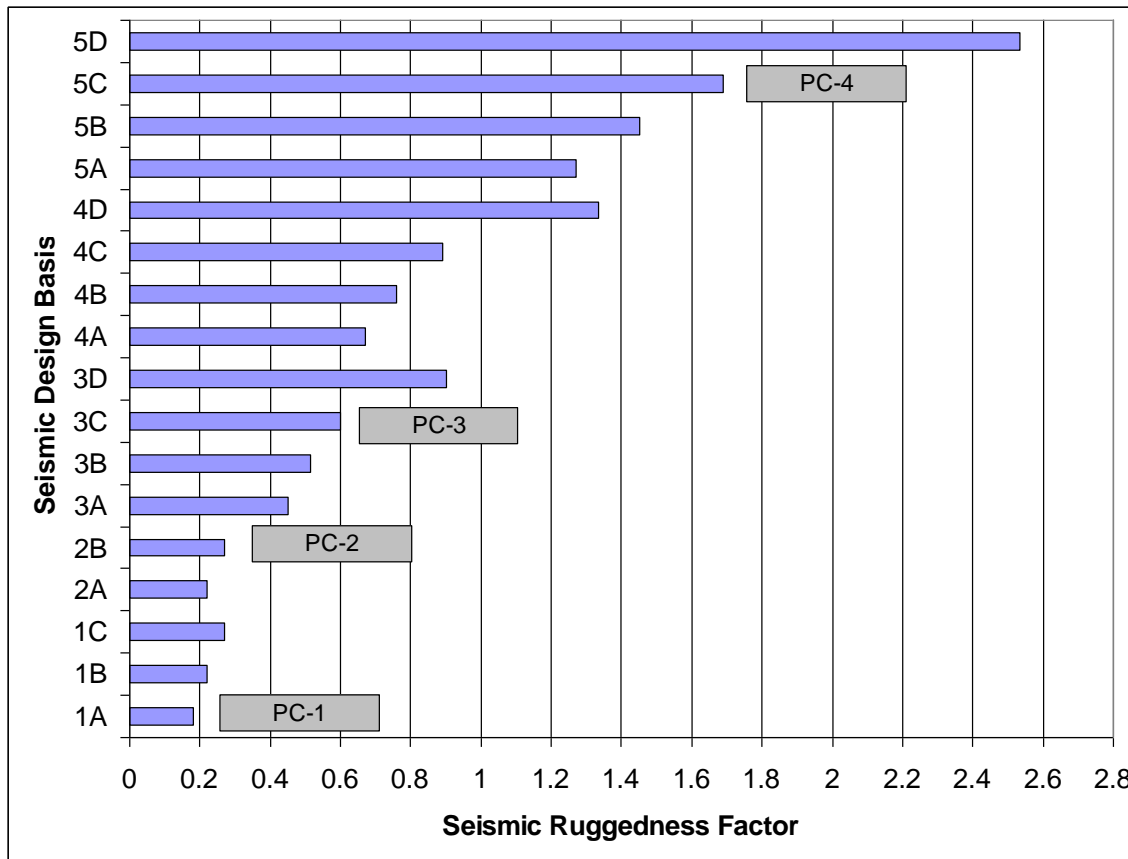
Within each SDC, 4 Limit States (A thru D) with increasing performance objectives

Guidance on Limit States for types of SSCs related to performance desired

ASCE 43-05 translates Seismic Design Basis (SDC and LS) into required analysis methods and design guidance



Comparison to Performance Criteria





Seismic Criteria



Unmitigated Consequence of SSC Failure		
Category	Collocated Worker	Public
SDC-1	Dose < 5 rem	N/A
SDC-2	5 < Dose < 100 rem	5 < Dose < 25 rem
SDC-3	100 rem < Dose	25 rem < Dose



Collocated Worker Criterion



100 rem @ 100 m, χ/Q at 100 m of 3.5E-3 sec/m³

Based upon NUREG 1140 (no buoyancy, F-stability, 1.0 m/sec wind speed at 100m, small building size (10m x 25 m), and 1 cm/sec deposition velocity).