

RISK CLASSIFICATION TABLE FOR AP1000 (based on 6/22/11 workshop)**CJ Fong, Division of Construction Projects**Basis: SPAR model calculations, DCD Rev 18, and input from W PRA staff

SYSTEMS			
VERY LOW	LOW	INTERMEDIATE	HIGH
ALL OTHER SYSTEMS: SFS, SGS, ETC...	PXS (ACC)	PXS (CMT)	PMS
	DAS	PXS (PRHR)	IDS
	ECS	PLS	PXS (IRWST)
	CNS (ISOLATION)	EDS	RCS
	PCS		
	RNS		
	CCS		
	SWS		
	VLS		
	ECS (ANC DIESELS)		
	PXS (IVR)		
	VBS (FANS)		
STRUCTURES			
VERY LOW	LOW	INTERMEDIATE	HIGH
TURBINE BUILDING	ANNEX BUILDING	CONTAINMENT	
EDG BUILDING		SHIELD BUILDING	
RAD WASTE BUILDING		AUXILIARY BUILDING	
YARD, SITE GRADE		NUCLEAR ISLAND BASEMAT	
NON 1E CABLE RACEWAYS		1E CABLE RACEWAYS	

Note: To ensure consistency, systems are listed using their official three letter designation from the AP1000 DCD, Tier 1, Introduction, page 1.4-1. Using this convention, the RCS includes the automatic depressurization system (ADS). Some systems were split into smaller segments:

PXS (ACC): Accumulators

PXS (CMT): Core makeup tanks

PXS (PRHR): Passive RHR

PXS (IRWST): In-containment refueling water storage tank

CNS (ISOLATION): Containment isolation valves

ECS (ANC DIESELS): Ancillary diesel generators

PXS (IVR): Features of the PXS related to in-vessel retention of molten core
VBS (FANS): Main control room and I&C rooms B/C ancillary fans

When spacing requirements are specified for more than one structure, the importance of the more important structure is used. For example, a finding related to inadequate spacing between the turbine building and the aux building would be placed in the intermediate column.

Systems were placed into columns based on their RAW values as determined by SPAR model calculations and input from Westinghouse PRA staff. The cROP working group reviewed the D-RAP list (DCD, Tier 1, Table 17.4-1) to determine if additional placement criteria should be considered. The group placed some systems into a column based on the following criteria:

1. System performs a post-72 hour safety function
2. System is safety significant during shutdown operations
3. System is important to LERF
4. System is important during a severe accident

The RCS includes the pressure boundary components and pipe segments that must meet ASME Section III requirements. They are identified by DCD Tier 1, Tables 2.1.2-1 and 2.1.2-2 respectively.

Restraints and supports (e.g., pipe hangers, snubbers) will be considered part of the system to which they are attached.

Embedded plates will be considered part of the structure to which they are attached.

Sensors will be classified according to their DCD tag numbers. For example, the RCS hot leg 1 flow sensors have tags RCS-101A/B/C/D. They will be considered part of the RCS. It is recognized that some sensors may provide input to a function (e.g. trip, control) with a higher or lower risk significance than the system where the sensor is physically located. These sensors may be moved to a different column based on a technical justification.