

# CBRN APR Test Matrix

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# Test Matrix for CBRN Air Purifying Respirators

Test Order	Penetration and Permeation Testing	Particulate Testing	Service Life Testing, 64 lpm flow	Service Life Testing, high flow	42 CFR Testing	Drop (not order specific)	Human Factors (not order specific)	Interchangeability
1.	6 APR systems (3 - GB and 3 - HD) Hot diurnal	60 canister units Hot diurnal	60 canister units Hot diurnal	12 canister units Service Life Testing, 100 LPM	TBD APR systems Canister in Parallel Resistance Requirements, 84.112 Breathing Tube, 84.115	6 Canister Units (2 per test) Major axis vertical, air inlet down	APR Systems --TBD -- (2 APR systems per test) Hydration (3)	APR Systems --TBD -- EN 136 & EN 148
2.	Cold constant	Cold constant	Cold constant			Major axis vertical, air inlet up	Optical Haze	
3.	Humidity	Humidity	Humidity		Facepieces, eyepieces minimum requirements, 84.119 Exhalation valve leakage test, 84.123 (2)	Major axis horizontal	Communications	
4.	Transportation vibration	Transportation vibration	Transportation vibration		Determine CO <sub>2</sub> levels (4)		Field of View	
5.	System testing (GB or HD)	Initial breathing resistance, 84.122 DOP Testing, 84.181	Initial breathing resistance, 84.122 Service Life Testing, 64 LPM				Donning	
6.		Final breathing resistance, 84.122	Final breathing resistance, 84.122				Fogging	
7.							LRPL Testing	