

# CBRN Escape Respirator

## CBRN APR Escape CWA Concept

- Sarin (GB):
  - Vapor Challenge - 210 mg/m<sup>3</sup>
  - Breakthrough – 0.087 mg/m<sup>3</sup> Peak
    - 2.1 mg – min/m<sup>3</sup> Ct
  - Time Agent Applied = Respirator Tested Service Time
  - Total Test Time = 2 X Respirator Tested Service Time



# CBRN Escape Respirator

## CBRN APR Escape CWA Concept

- Mustard (HD):
  - Vapor Challenge 50 mg/m<sup>3</sup>
  - Liquid Challenge 0.46 ml
  - Breakthrough – 0.60 mg/m<sup>3</sup> Peak
    - 6.0 mg – min/m<sup>3</sup> Ct
- Time Agent Applied = Respirator Tested Service Time
- Total Test Time = 2 X Respirator Tested Service Time



# CBRN Escape Respirator

## CBRN APR Escape LRPL Concept

- 20 – 40 mg/m<sup>3</sup> Corn Oil Aerosol
- 0.4 to 0.6 Micrometer Mass Median Aerodynamic Diameter
- Five Tests From Each Cell
- Each Cell Uniquely Tested



# CBRN Escape Respirator

## CBRN APR Escape LRPL Concept

- Hood Type Respirator Required
- Anthropometrics
  - Head Circumference
  - Neck Circumference
  - Face Length



# CBRN Escape Respirator

	Small	Medium	Large
Head Circumference	NA	NA	576 - 600
Neck Circumference	307 - 350	351 - 375	376 - 409
Face Length	NA	NA	124 - 133.5

- Five respirators shall be tested with test subjects from each cell of the above table with dimensions identified
- Each cell is uniquely tested

