

CBRN PAPR Standard Development

CBRN PAPR CWA Concept

- Sarin (GB) and Mustard (HD) challenge vapor concentrations are based upon the CBRN APR standard



CBRN PAPR Standard Development

CBRN PAPR CWA Concept

- Sarin (GB):
 - Vapor Challenge – 210 mg/m^3
 - Breakthrough – 0.044 mg/m^3 Peak
- $1.05 \text{ mg min/m}^3 \text{ Ct}$
 - Time Agent Generated = 30 minutes
 - Total Test Time = 8 hours



CBRN PAPR Standard Development

CBRN PAPR CWA Concept

- Mustard (HD):
 - Vapor Challenge 50 mg/m^3
 - Liquid Challenge $0.43 - 0.86 \text{ ml}$
 - Breakthrough – 0.30 mg/m^3 Peak
 - - $3.0 \text{ mg min/m}^3 \text{ Ct}$
 - Time Agent Generated = 30 minutes vapor; liquid applied for last 2 hours
 - Total Test Time = 8 hours



Workplace
Safety and Health



The Protective Equipment Team
Aberdeen Proving Ground
Edgewood Area
Edgewood, Maryland

Raymond R. Lins
16 October 2003



Protective Equipment Team Accreditations

- Accredited for International Standard ISO/IEC 17025 certified by American Association for Laboratory Accreditation (A2LA)
- Certified Testing Laboratory for National Institute for Occupational Safety and Health (NIOSH)
- ASTM 739 Certified by A2LA for NFPA Swatch Testing



Protective Equipment Team Swatch Testing

- 3 Sets of Six Swatch Test Systems using MINICAMS for agent detection
- 1 set of Six Swatch Cups for Vapor or Liquid challenge using a MINICAM for agent detection
- 1 set of 6 Dawson Cups with a MINICAM for agent detection
- 2 Hoods with holders for 100 fly cups
- 1 Q170 Tester



Protective Equipment Team

SMARTMAN Testing

(SiMulant Agent Resistant Test MANikin)

Over 1000 Test completed using The SMARTMAN Test System

- Escape Masks
- Powered Air Purifying Respirators
 - Air purifying Respirators
 - SCBA
- Self Contained Respirators



Protective Equipment Team

SMARTMAN Testing



Protective Equipment Team

SMARTMAN Testing

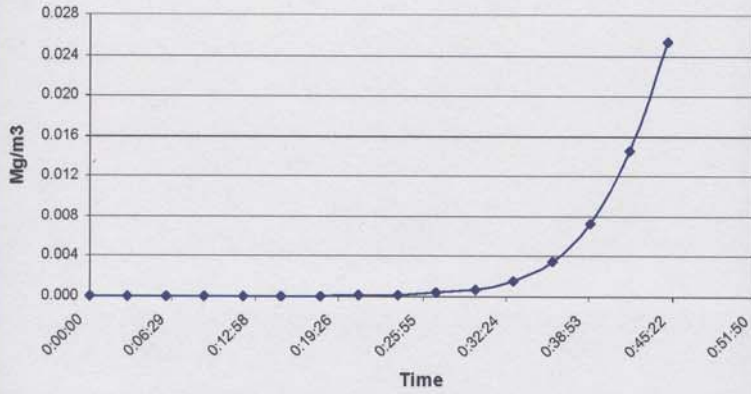


Protective Equipment Team

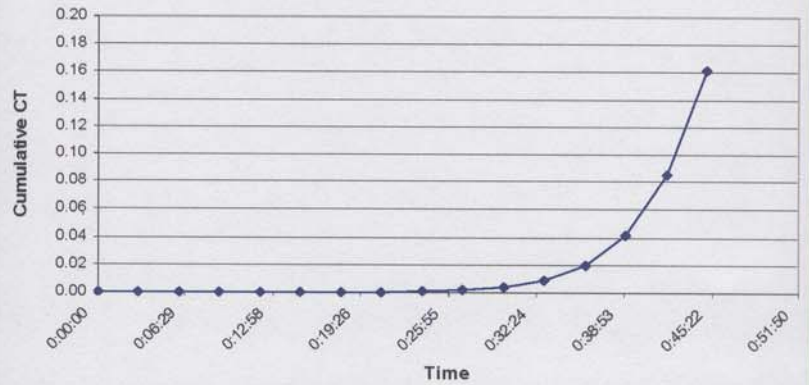
SMARTMAN Testing

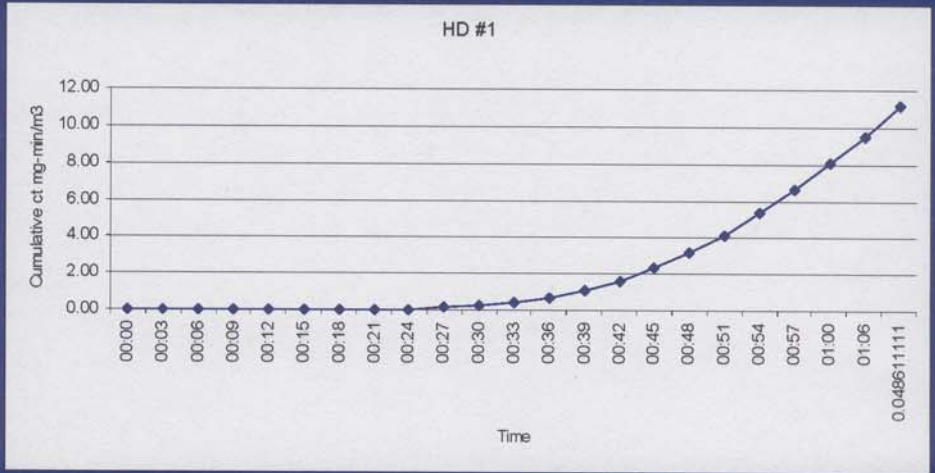


GB Test # 3

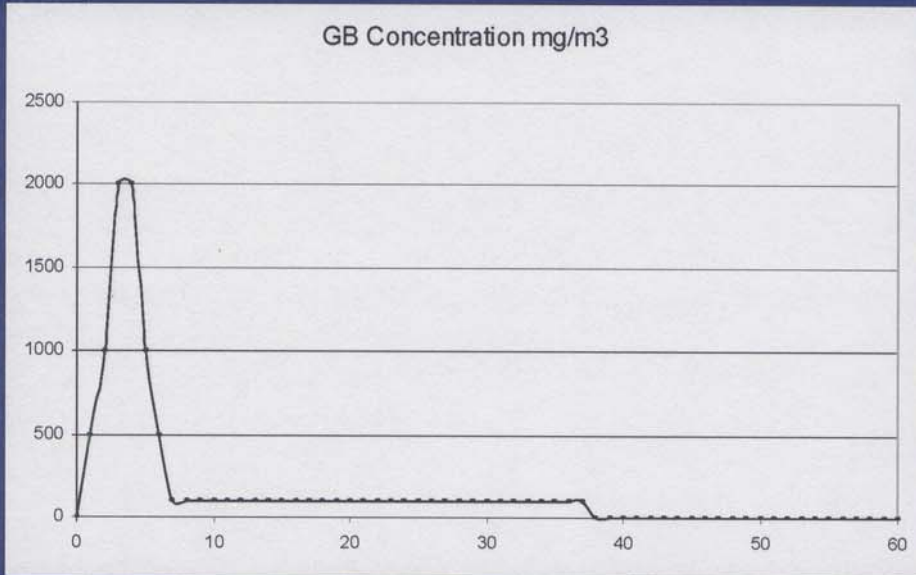


GB Test # 3





GB Concentration mg/m3



Protective Equipment Team SMARTMAN Test Systems

- 5 Medium SMARTMAN Agent Test Systems
- 1 Medium SMARTMAN CK Test System
- 1 Medium SMARTMAN Leak Test System
- 2 Small SMARTMAN Leak Test Systems
- 1 Small SMARTMAN Agent Test System
- November 2003 2 Medium SMARTMAN Test Systems
- December 2003 2 Additional Medium SMARTMAN Test Systems With Automated Breathing Simulators



Workplace
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