

Measuring Protection Factors with a CBRN Blast Helmet and Bomb Suit

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The development of the capability to measure work place and simulated work place protection factors of up to about 50,000, with a Portacount and PAPRs, is discussed along with the factors that can affect the results, such as interference between the respirator, helmet, and clothing system, and interferences with the measurement system. Results are presented on the measurement of simulated work place protection factors with a CBRN Blast Helmet and Bomb Suit with a powered air purifying respirator (PAPR). Of particular note with a PAPR is the generation of blower generated aerosols that can interfere with the measurement. The trial with the CBRN Blast Helmet and Bomb Suit was conducted on members of the Royal Canadian Mounted Police (RCMP) Explosives Ordnance Disposal (EOD) Team, at their facility, and using a test protocol that they helped to develop to simulate most of their activities while responding to a bomb threat.