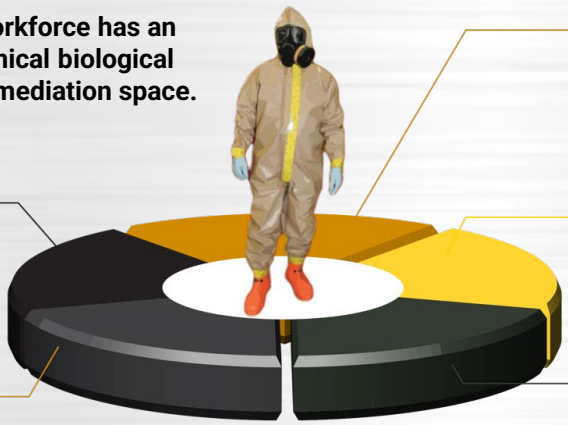
Maryland Defense Research Coalition (MDRC)

THE UNIQUE PEOPLE, FACILITIES & CAPABILITIES AT ABERDEEN PROVING GROUNDS CHEMICAL BIOLOGICAL CENTER

CBC'S SPECIALIZED WORKFORCE

CBC's highly specialized and certified workforce has an unmatched level of expertise in the chemical biological assessment, destruction, recovery, and remediation space.



Research Design and Method Development
- Equipment calibration
- Test design and study parameters
- Quality assurance standards
- Agent concentration verification
- Filter and Environmental Enclosure Testing

Program Management and Logistics
- Management of resources and personnel
- Partnerships with government, industry and academia

Environmental Sampling and Analysis
- Air monitoring
- Water and sediment sampling
- Mobile and fixed laboratory analysis

Operational Equipment and Mechanics
- Material handling equipment, i.e., cranes, forklifts, excavators
- Industrial mechanics, i.e., HVAC, pumps, motors, electrical
- Trade skills, i.e., plumbing, carpentry, construction
- Transportation

Chemical and Biological Agent Handling
- Personnel protective equipment
- Personnel decontamination stations
- Destruction system operations
- Agent synthesis
- Building/equipment decontamination

CBC's employees average 20+ years of experience and are cross-trained to meet essential project needs.

CBC'S SPECIALIZED CHEMICAL BIOLOGICAL (C/B) DEFENSE FACILITIES

Prototype Detonation Test & Destruction Facility (PDTDF)

The PDTDF is capable of testing C/B destruction technologies, while providing air containment for man-portable to heavy transportable systems. The PDTDF has conducted defense operations using 60+ lbs. of explosives. Safety features include a blast chamber, containment chamber, and cascade ventilation systems.

Single Small-Scale Facility (SSSF)

The SSSF is designated under the Chemical Weapons Convention as the repository for the U.S. research and development stock of toxic chemical agents. The SSSF is the only location in the U.S. where more than 10g of chemical agent is permitted to be stored. These chemical agents are used to conduct defense research and development for the DOD, which is imperative to maintaining an effective C/B defense posture against global threats and actors.

CBC'S SAFETY RECORD

CBC's OSHA recordable rate is 0.4. The North American Industry Classification System (NAICS) average for what CBC's category is 6.3, making **CBC safety rating 15.75 better then their industry average for recordable injuries**. CBC's Lost time rate is 0.3. The NAICS in their category is 3.6, making **CBC safety rating 12 times better then their industry average in lost time incidences**.

CBC's safety record proves that members of their workforce are safer than workers in the average florist shop and their quantitative safety metrics are on par with working at a bank or insurance office. This is achieved by a well-trained workforce that operates in highly toxic chemical and biological agent environments almost every day of the year.

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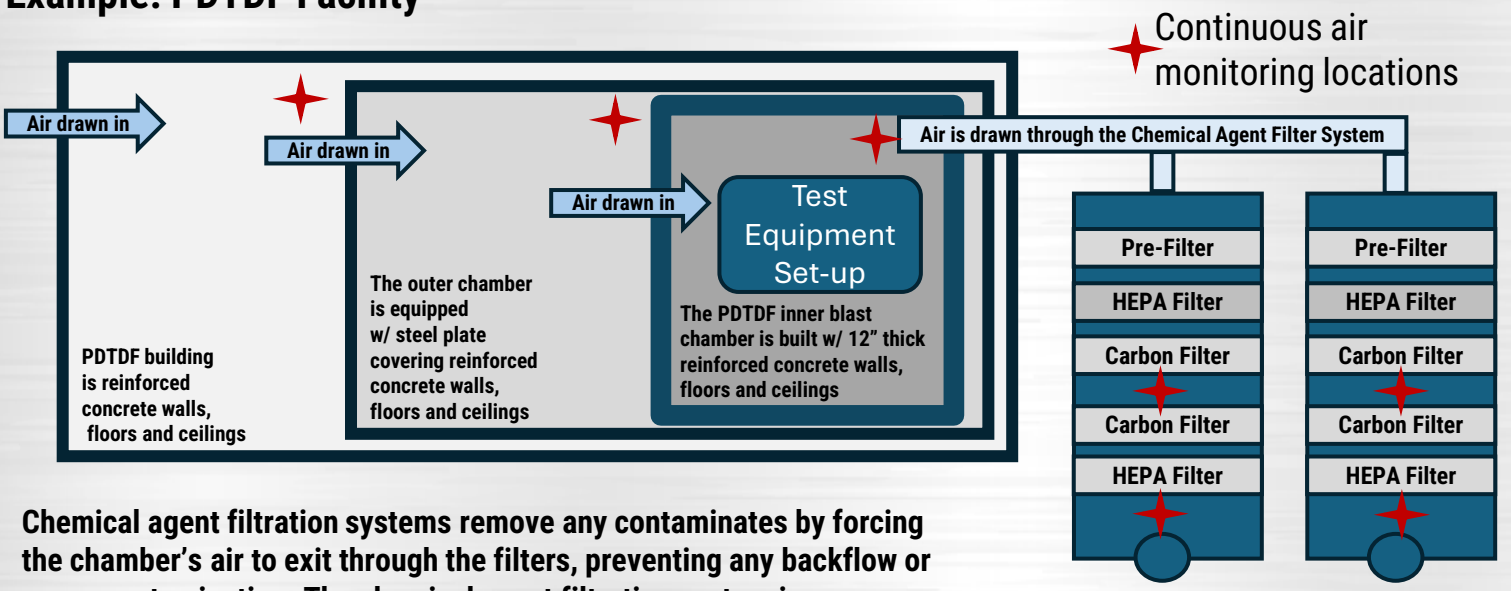
CBC'S LAYERS OF PROTECTION DURING TEST OPERATIONS

Example: PDTDF Facility



Chemical agent filtration systems remove any contaminates by forcing the chamber's air to exit through the filters, preventing any backflow or cross-contamination. The chemical agent filtration system is continuously monitored to ensure no releases to the environment occur.

Filters operate on grid power but have back-up generator power to ensure continuous operation

Air monitoring is performed at the OSHA worker protection level, where an unmasked CBC employee can safely work 8 hours a day, 5 days a week, 50 weeks a year for 30-years without health effects

CBC'S SPECIALIZED CONTINUOUS AIR MONTITORING SYSTEMS

Miniature Continuous Air Monitoring System (MINICAMS)

Automatic air monitoring system that collects chemical compounds from the air and analyzes them on a gas chromatogram to detect trace levels of the compounds. The MINICAMS is a lightweight, transportable, continuous low-level monitor that provides a visual and audible alarm if agent vapors exceed the alarm set point.

Depot Area Air Monitoring System (DAAMS)

Portable air-sampling technology, designed to draw air through a glass sorbent collection tube. As the air is passed through the sorbent tube, any agent is collected. After sampling, the tube is removed from the vacuum line and analyzed at CBC's accredited environmental monitoring laboratory. The purpose of DAAMS confirmation samples is to confirm or refute a (MINICAMS) alarm.

If a technology is expected to operate for extended periods, an EPA air emissions performance test is performed using to evaluate all potential hazardous air constituents (metals, organics, PCBs, dioxins/furans, etc.) against human health and ecological risk standards.

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Questions or Comments

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