

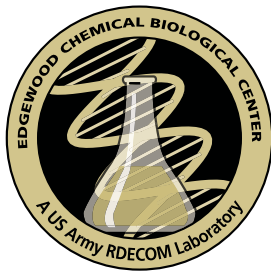
**The Recognized Leader
in Providing CB Solutions**

FOR MORE INFORMATION CONTACT

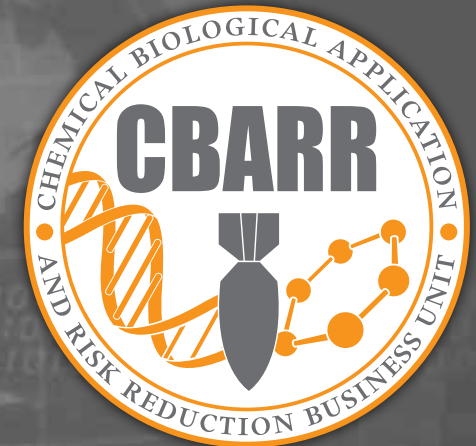
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OF THE



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OVERVIEW

Mission

Chemical Biological Applications and Risk Reduction's (CBARR) mission is to perform global Chemical and Biological (CB) operations in a safe, secure and environmentally sound manner.

Vision

Be the recognized leader in providing integrated CB solutions for customers worldwide.

PERSONNEL PROFILE

250 field-deployable scientists, engineers, technicians and operators located in Edgewood, Md. and Pine Bluff, Ark.

SPECIALIZED SKILLS/CERTIFICATIONS

- 150 Chemical/Biological Personnel Reliability Program-certified individuals
- Highly trained and experienced workforce - certified, vaccinated, cleared and mobile

CAPABILITIES:

- Deployable Lab Services
- Laboratory Support
- Field Operations
- Live Agent Operations
- Risk Management & Training



FACILITIES & EQUIPMENT

THE CHEMICAL TRANSFER FACILITY (CTF)

- Single repository for the Army's research and development stocks of toxic chemical agents
- Single Small Scale Facility (SSSF) under the Chemical Weapons Convention (CWC)
- Chemical Weapons Storage Facility (CWSF) and Chemical Weapons Destruction Facility

THE SAMPLE RECEIPT FACILITY (SRF)

- Nation's premier facility for the receipt and exploitation of uncharacterized samples
- Occupies 44,375 sq ft of analytical laboratories for chemical, biological and radiological assessment

THE ENVIRONMENTAL MONITORING LABORATORY COMPLEX

- Occupies 5185 sq ft of laboratory space providing high throughput CWA/BWA and inorganic chemical analysis using robotics in both mobile and stationary analytical lab constructs

PINE BLUFF ARSENAL (PBA) MONITORING BRANCH LABORATORY

- Fixed lab occupying 11,000 sq ft housing nine Real Time Analytical Platforms (RTAPs)
- Performs gas chromatography mass spectrometry (GC-MS) analysis, ICP analysis and wet chemistry analysis

APG-EA TESTING FACILITIES

MUNITIONS ASSESSMENT AND PROCESSING SYSTEM

- Fixed facility occupying 9000 sq ft composed of specialized glove boxes, drilling and cutting hardware, explosive containment chambers, and negative pressure filtration systems
- Designed to receive and process a wide variety of stable, explosively and non-explosively configured chemical munitions and safely access and drain explosively configured chemical-filled munitions and detonate the empty munition bodies.

PROTOTYPE DETONATION TEST AND DESTRUCTION FACILITY (PDTDF)

- Facility used to test and demonstrate technologies to destroy UXO and exploit potential CW/BW explosively configured unknowns
- Occupies 2500 sq ft with a containment chamber ventilated at 5000 CFM to ensure capture of contamination within
- Blast Containment Chamber inside the facility
- Multiple Vapor Containment Structures (VCS) available on site

EQUIPMENT

- Long haul trucks
- Air Filtration Systems
- Electrical distribution equipment
- Material handling equipment
- Trailers



LABORATORY SUPPORT

ENVIRONMENTAL MONITORING LABORATORY (EML)

- High throughput lab that provides CWA/BWA and inorganic chemical analysis in several matrices(air, water, soil, paint chips, wipes, organic solids & liquids, marine tissue, demolition debris and unknowns)
- Robotic-assisted analysis used for high-throughput sample analysis for biological agent screening using polymerase chain reaction (PCR) and electrochemiluminescent (ECL) assays

CERTIFICATIONS

ISO/IEC 2005:17025

- Accredited by the American Association for Laboratory Accreditation (A2LA) in the field of Biological Testing
- Scope of accreditation includes qualitative ECL immunoassay testing and qualitative PCR analysis for biological warfare agents
- Scope of accreditation covers analysis performed in either their fixed or mobile laboratories



TESTING CERT #2866.01

QUALITY CERTIFICATIONS AND COMPLIANCES

- Compliant with Chemical Material Agency's(CMA) Laboratory and Monitoring Quality Assurance Plan (LMQAP) and Chemical Agent Standard Analytical Reference Material (CASARM) Quality Assurance Plan
- Compliant with Department of Defense (DoD) Quality Systems Manual for Environmental Laboratories
- Undergos annual recertification with CASARM
- Participates in internal and external quality system audits

FOOD ANALYSIS AND METHODOLOGY DEVELOPMENT (FOOD EMERGENCY RESPONSE NETWORK - FERN)

- Accepted into FERN as a biological/chemical/radiological testing laboratory in January 2009
- Performed method equivalency testing for biological analysis with food matrices



FIELD OPERATIONS

FIELD OPERATIONS

- Demolition of former CB process facilities
- Support to the U.S. Army Corps of Engineers in remediation of formerly used defense sites
- Support to the United Nations in non-proliferation activities
- Environmental investigation for the U.S. Fish and Wildlife Service on Laysan Island, Hawaii

SYSTEMS

EXPLOSIVE DESTRUCTION SYSTEM (EDS)

- Transportable system designed to safely destroy range recovered, explosively configured and chemical-filled munitions
- Operated on behalf of PM Non-Stockpile
- Deployed system in CONUS over 10 times for emergency destruction of CW-filled munitions

TRANSPORTABLE DETONATION CHAMBER (TDC)

- Transportable system designed to use explosives to destroy chemical munitions and further treat effluent using an Air Pollution Control Unit.
- DDESB - Approved 40lbs of TNT-equivalent explosive capacity
- Previous Test Sites: APG, MD; Porton Down, UK; Schofield Barracks, HI
- Deployed to Columboola, Australia in 2011

DEPLOYABLE LAB SERVICES

NEAR REAL TIME MONITORING

- Automated continuous monitoring systems provide near real-time detection of airborne contaminants to ensure worker safety
- Instruments are gas chromatography (GC) based coupled with flame photometric or halogen specific detectors
- Up to 32 systems can be linked and remotely controlled by computer
- Deployed in both mobile and fixed configurations which are designed and fabricated to satisfy site specific requirements

ON-SITE LAB ANALYSIS

- Fully functional, mobile laboratories perform critical on-site analysis of air, water and soil samples
- Utilizes state-of-the-art analytical instrumentation to monitor for chemical warfare agents as well as their breakdown products
- Can operate on either land power or on-board electrical generators
- Capable of 24-hour operation



LIVE AGENT OPERATIONS

- U.S. declared single small-scale facility under the CWC
- Conducts chemical agent synthesis and purification
- Conducts a wide variety of chemical process operations in support of the U.S. Chemical Demilitarization Program
- Supports the law enforcement community in CB screening of unknown samples

RISK MANAGEMENT & TRAINING

RISK MANAGEMENT

Provides comprehensive life cycle environmental, safety and health services in support of chemical/biological operations:

- Hazard analyses/risk assessments/development of standard operating procedures
- Environmental impact/pollution prevention
- Opportunity assessments
- Physical security assessments
- Air monitoring strategies for CB agents and industrial compounds
- Field testing and certification of engineering control systems
- Environmental, safety and health field inspections

TRAINING

Conducts comprehensive training programs in the following areas:

- Chemical and biological agents
- Chemical and biological agent effects
- Detection, identification and monitoring equipment
- Potential scenarios
- Decontamination methods and techniques
- General industrial safety (Toxic Industrial Chemicals/ Materials)

Practical exercises that focus on the following:

- Render Safe Procedures
- Sample acquisition
- Personal protective equipment selection and use

PARTNERSHIPS



AECOM

PARSONS



URS

KOBELCO
KOBELCO STEEL GROUP

WESTON
SOLUTIONS
an employee-owned company



SUCCESS STORIES

ALBANIA CHEMICAL WEAPONS ELIMINATION (DEFENSE THREAT REDUCTION AGENCY - DTRA)

- Provided sampling and characterization of Albania CW Stockpile (2005 - 2007)
- Conducted safety and process analyses during destruction phase
- Over 38,000 hours deployed
- Over 5,000 air samples analyzed

BLUE GRASS TON CONTAINER NEUTRALIZATION (ASSEMBLED CHEMICAL WEAPONS ALTERNATIVE - ACWA)

- Chemical Agent Transfer System
- Transferred the contents of the ton containers into a 20-gallon reactor and neutralized the agent through hydrolysis
- Provided all site support (electrical generators, mobile laboratory, air monitoring and filtration systems)
- Neutralized approximately 137 gallons of agent (December 2008)

AUSTRALIAN CHEMICAL WEAPONS ELIMINATION (AUSTRALIAN DEPARTMENT OF DEFENSE - ADoD)

- Provided chemical operators and analytical support to the destruction of 144 mustard filled munitions (Feb - May 2011)
- Conducted operations using CH2M HILL T-60 Transportable Detonation Chamber (TDC)

CHEMICAL MATERIALS AGENCY SUPPORT

- Conducted demolition and dismantling of an APG-EA building complex housing former surety agent process areas and lab equipment
- Performed method validation for contaminated carbon filter testing
- Provided chemical demilitarization operators at ABCDF during Operation Speedy Neutralization
- Supported the repackaging and monitoring of over 3,000 drums of legacy secondary waste disposal (PCD, PBA, APG, NECDF)
- Performed testing and deployments for the destruction of chemical filled munitions using technologies such as the EDS and TDC

U.S. ARMY CORPS OF ENGINEERS

- ECBC has provided chemical/biological analysis of environmental samples, chemical agent filtration systems and vapor containment structure erection and certification.
- Remediation and site investigations at Formerly Used Defense Sites (FUDS) to include sites in Alabama, Florida, Oklahoma, Hawaii, New Jersey, Kansas, Guam, Virgin Islands and Washington D.C.

HIGH-THROUGHPUT PCR ASSAY EVALUATION (JOINT PROGRAM EXECUTIVE OFFICE FOR CHEMBIO DEFENSE)

- Performed fastblock PCR assays using high-throughput 384-well PCR format
- Work supported the Critical Reagents Program (CRP) new product line
- Feasibility studies provided data to support assay formulation changes that benefit the CRP, CRP customers and ECBC