

# ISRP 2000 abstract

Presenter/author	Title	Abstract
<p>Cloonan, Terrence K.</p> <p>Domestic preparedness &amp; occupational hygiene specialist, Scott Health and Safety, Monroe, NC, USA</p>	<p><b>Law Enforcement Personnel — Are They Protected in a Chemical, Biological, Radiological and/or Nuclear (CBRN) Weapon of Mass Destruction (WMD) Terrorism Incident?</b></p>	<p>Law enforcement personnel in the United States routinely respond to unknown situation 911 emergency calls at a higher rate than other emergency first responders. Are they threatened by Chemical, Toxic industrial, Biological, Radiological and/or Nuclear (CTBRN) terrorism? Since CTBRN dangers can be elusive, nondescript, seemingly routine, invisible or outright mass casualty producing a new approach toward reacting to routine emergency calls must be implemented. The traditional law enforcement "can do" focus works well in most police actions but with the threat of CTBRN a possibility this focus can be a dual edged sword and thus present an unknown lethal situation for law enforcement responding to any emergency event. When they respond, how are they currently protected from toxic aerosol, vapor, liquid and/or solid CTBRN contamination/etiological exposure? The United States Department of Justice (DOJ) has mandated the Louisiana State University (LSU) Academy of Counter Terrorism under the National Domestic Preparedness Consortium to train law enforcement personnel in effective response to WMD incidents. The LSU acronym known as TRACEM outlines the spectrum of harm that a Law Enforcement Responder (LER) can expect in a WMD/CTBRN incident. Thermal, Radiological, Asphyxiation, Chemical Etiological and Mechanical (TRACEM) is a concept of harm. Understanding the types of Harm that a LER may encounter allows protective measures to be designed, taught and trained. What are the roles of LER in a local CTBRN incident? Recent US Federal exercises (Top Off etc...) prove that LERs are significantly in need of personal protection equipment and detection instrumentation under the following situations:</p> <ol style="list-style-type: none"><li>1. Downwind Agent Per-Cutaneous Exposure</li><li>2. Agent Miotic Effects Exposure</li><li>3. No-Notice Agent Exposure</li><li>4. Primary Device Multiple Effectiveness Agent Exposure</li><li>5. Secondary Device Persistent Agent Contamination Effects</li><li>6. Liquid CTBRN agent Exposure</li></ol> <p>What are their options for protection? The following options are in various stages of utilization within the United States:</p> <ol style="list-style-type: none"><li>1. Tight Fitting Full Facepiece "Gas" Mask with Canister</li><li>2. Loose Fitting Hood Ensemble with Purified Powered Air Respirator and Canisters.</li><li>3. Military Mission Oriented Protective Posture (MOPP) 3 or 4.</li><li>4. Civilian Field Expedient Protection (CFEP)</li><li>5. US Environmental Protection Agency Levels C, B or A.</li><li>6. One Time Use Disposable Breathing Zone Protection Device</li></ol> <p>How are these PPE options impacted by United States regulatory guidelines and requirements? Eight different agencies publish guidelines for the LER. OSHA jurisdiction, NIOSH approvals, NFPA acceptance, NIJ/NIST ratings, DOD Military Specifications, DOE acceptance, EPA acceptance and Joint DOD/DOJ Inter Agency Board Standardized Equipment Listing (SEL) acceptance. A Law Enforcement Responder requires some reliability testing of the CTBRN PPE prior to its use in a tactical situation. What agency does a law enforcement executive rely on to ensure that reliable equipment is being used in responding to a "Nuclear, Biological, Chemical (NBC)/Chemical, Toxic Industrial, Biological, Radiological and/or Nuclear (CTBRN) incident? Equipment that lowers the acceptable casualty ratio to its lowest denominator provides the law executive with the most cost and mission effective item. Once a device and regulatory guidelines are mandated, they require integration into local, adjacent and higher Standard Operating Procedures (SOPs), standardized training, compatibility training, law and fire responder procedures analysis, incident command adaptability, Federal Response Plan (FRP) integration and training after action reports. The integration supports standardization procedures between the most critical first responders (law, fire and ems). Currently, the average law</p>

enforcement officer is in the equivalent EPA Level D protection. US Army studies show that this protection is no more than the average citizen. Technology improvements that provide required protection are forthcoming. The law enforcement priorities of life safety, incident stabilization and local property/environmental concerns mandate that LERs protect themselves as a first priority in order to conduct law priorities for a municipality. With the addition of individual protective facepieces, shrouds and NBC canisters, law responders can survive CTBRN incidents that are non-persistent toxic chemical warfare agents, pathogenic/toxic biological particulates and radiological particulates----- the first step in escaping a Chemical/Biological agent attack. The levels/options for protection need improved in the areas of semi-persistent and persistent chemical and industrial toxic agents, biological virus, change out criteria for canisters and SOPs on command and control between different municipal/state and federal responders. US national SWAT teams from Houston, TX, Phoenix, AZ, Springfield, IL, and Buffalo, NY have developed internal equipment needs based on credible threat assessments and are designing response plans in support of mitigating the effects of CTBRN incidents. Special Weapons and Tactics (SWAT) Teams are the most aggressive in the area of CTBRN defense. Conversely, the routine patrol officer on routine patrol in the local metropolis or municipality is in dire need of escape/egress breathing zone and skin protection under CTBRN conditions. Training is the immediate answer coupled with rated equipment that provides Initial Civilian Field Expedient Protection (CFEP) to all deployed law enforcement personnel. These factors will ensure that a patrol officer, a SWAT team member or a command post tactician has the minimum breathing zone and skin protection required to survive being contaminated by toxic lethal Chemical, Biological and/or Radiological agents in multiple environmental/tactical conditions.