



# NC Hazmat RRT Newsletter

November, 2011

## 124 RRT Reports to NC EOC CY 2011

### Ricin: A Local and International Threat

Ricin is a potent toxin, that is easily and inexpensively produced from castor beans. Counter-terrorism officials recently issued warnings that Al Qaeda has been seeking to produce ricin to attack a shopping mall, subway or airport. Federal agents arrested four members of a Georgia militia plotting to produce and attack with ricin.

Ricin can be in the form of a powder, a mist, pellet or dissolved in water or weak acid. Ricin may be inhaled, ingested or injected. It prevents

the cells from being able to produce proteins: the cells begin to die and death may occur from 36 to 72 hours, depending on route of exposure and dose received.

2003 - the Secret Service acknowledged that ricin was found in the White House mail room.

Feb. 2004 - ricin was found in three US Senate office buildings.

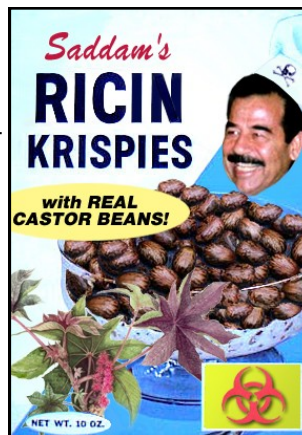
Dec. 2006 - a vial was found in Greenville, SC in an envelope to US DOT.

Dec. 2002 - 6 terrorist suspects were ar-

rested in England where their apartment was serving as a ricin laboratory.

Ricin's use as a food and water contaminant is a major concern.

Ricin has no treatment or vaccine and is not communicable.



### Ricin:: Biotoxin

CAS # 9009-86-3

UN # 3462 (Guide 153)

Appearance: White powder. Can be liquid or crystalline form.

Dissemination: Aerosol, food or water contaminant.

### Ricin Symptoms

**Inhalation** - fever, nausea, vomiting. Worsening cough & congestion.

**Ingestion** - mimics food poisoning, abdominal pain, vomiting & diarrhea.

**Injection** - pain & swelling at injection site, flu-like symptoms.

### RRT 4 Decontamination Trailer

The City of Raleigh recently received their custom designed decontamination trailer. The 32 foot, self-contained, trailer is equipped with internal and external solution showers, an on demand gas hot water heater & electric generator. The internal shower area may be configured for single or dual line decontamination. There is an un-

dress, rinse and re-dress area.

Externally, there are additional showers, two booms and hand held sprinklers for showering or gross decontamination.

Captain Ian Toms states that the trailer has multiple applications and the trailer was purchased with a Department of Homeland Security 2008 federal grant .



City of Raleigh RRT 4



**Condolences to the family of Greensboro Fire Captain Will Caviness. Thank you for your service.**

**Dec. Calibration Schedule**

**Hazmat RRT 1  
Hazmat RRT 6**

Anson County (DOE)  
Richmond County (DOE)  
Scotland County (DOE)  
Cleveland County (DOE)

Ohio EM Agency  
RIM&C Facility  
1296 Kinnear Rd.  
Columbus, OH 43212-1154



**RAE Systems BioHarness for First Responders**

RAE introduced the Bio-Harness this month. The BioHarness allows safety managers with real-time physical status of personnel operating in hazardous environments.

The lightweight chest worn strap incorporates an ECG, breathing rate, temperature, posture and activity sensors for real-time physiological monitoring. The BioHarness also allows assessment of hazardous chemical compounds.

The BioHarness consists of a BioModule, the RAELink3 monitor and ProRAE Guardian Software. The BioModule links to a portable modem which enables the wireless radio to transmit sensor readings and GPS coordinates to the PC running the ProRAE Guardian software. This can be coupled with a variety of other safety sensors: Volatile Organic Compounds (VOC), gases, chemical warfare agents and radiation.



The RAE Systems BioHarness includes ECG and breathing rate sensors for real-time portable physiological monitoring. The BioHarness links to a RAELink3 portable modem to transmit sensor readings and GPS coordinates to a PC running the RAE Systems ProRAE Guardian safety monitoring software

**Backpressure Contamination of Water Systems**

Backpressure contamination, the reverse flow of contaminated water into a potable water distribution system, has once again been mentioned by extremists.

A water contamination incident using an effective contaminant and delivery method would cause immediate public health ef-

fects, require costly cleanup, and cause lasting economic and psychological impact.

Minimal technical expertise or equipment is needed to introduce contaminants into the water system, and general information on backpressure processes is readily available to the public.

Physical Indicators would be tampering of water systems, trucks, other than fire trucks, hooked up to fire hydrants or manifolds, water discoloration, unusual taste or odor.

Medical indicators would be burning of esophagus and respiratory symptoms associated with water consumption.

Requests for a Regional Response Team may be initiated by the incident commander, local emergency management coordinator, or N.C. Emergency Management Division's area coordinator. The requester must provide some basic information, such as:

- Substance/chemical name (if known)
- Incident location, size and severity
- Is substance liquid, solid or gas
- Danger present and area threatened
- Fire, health, or explosion hazards
- Evacuations in progress, or contemplated

**Have good information or lessons learned, submit to:**  
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***You are not forgotten.***