Unknown Substance Training for HAZMAT: Site Assessment and Lab Sample Collection

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Wisconsin State Laboratory of Hygiene
Partnership

Successful event response requires
- Communication, cooperation, capability

Develop partnerships through
- Training, out reach, exercises
Hazmat Sample Collection Training

- State unknown substance protocol
  - Multi-agency effort
- Sample collection protocols
  - First responder driven
- Hazmat training statewide
  - Standardized collection procedure
A Collaborative Effort

Wisconsin Unknown Substance Protocol
March 21, 2011

The Wisconsin Unknown Substance Protocol was developed as a tool for first responders to deal with an unknown substance (e.g., “white powder”, unknown liquid, “suspicious” package, etc.) that may pose a risk.

The protocol is designed to clarify when and what type of a response is necessary, whether laboratory testing is warranted, and whether there is a risk for persons exposed.

The protocol has two components: the first for law enforcement to assess if a threat exists, and the second, after the existence of an actual or implicit threat is determined, for public health to assess whether there is a danger to the health of persons exposed to that substance.

Since the anthrax letters of 2001, there have been thousands of white powder and unknown substance incidents in Wisconsin. None of the specimens have tested positive for anthrax and there were reasonable explanations for the presence of powder for most incidents. However, it is important to handle each situation in a uniform and systematic manner, as described in this protocol.

The Wisconsin Unknown Substance Protocol was developed by the Wisconsin Division of Public Health, with the expert advice of the Federal Bureau of Investigation (FBI), United States Postal Inspectors Service (USPIS), Wisconsin Capitol Police, Wisconsin National Guard (WNG), Wisconsin Emergency Management (WEM) and the Wisconsin State Laboratory of Hygiene (WSLH).

This protocol should be incorporated into your local emergency plans and is available at the following location: http://www.dhp.wisconsin.gov/preparedness/resources.htm

This protocol is not designed for use in mailrooms. The United States Postal Service (USPIS) provides guidance for mailrooms at: http://www.usps.com/communications/news/security/mailcenter.htm

Questions or comments can be directed to: DHSstockpile@wisconsin.gov

Wisconsin Division of Public Health

UNKNOWN SUBSTANCE/PACKAGE/LETTER
October 3, 2011

DO NOT sniff, touch, or move package/letter. DO NOT change environment, including lights.

- Law enforcement will perform a threat/risk assessment (see reverse for assessment guidelines).

If there is an explicit threat, implicit threat, or risk to persons or the environment:

No

Yes

- Advise the person reporting the incident to wash their hands.
- Issue the package/letter in double-bagged (to avoid additional exposure) and then thrown in trash.
- No laboratory testing is necessary.
- Public health does not need to be notified.

Law enforcement will secure area and call local public health.

- Did it arrive in the US Mail?

No

Yes

- Local LE calls the FBI
- 414-278-6684

- Local LE calls the USPIS
- 877.876.2453

- Notify Homeland and/or CST
- Notify medical care if needed

- Advice any person who handled the material to wash their hands and remain at the scene in a separate room.
- Do NOT touch or disturb the item in question until a public health and safety risk assessment is done.
- When there is a risk to the public’s health or safety, the following steps will be taken in this order:
  1. Law enforcement will assess if there is a possibility that the item is an explosive device.
  2. Harmless blast will occur, the item is destroyed, chemical, and explosive hazard.
  3. Biological field testing will be done UNLESS performed by the USPIS inspector, CST, or with an FBI agent present.
  4. Digital photographs will be taken of the item and provided to public health, the lab, and law enforcement.
  5. CST/USPIS will triple-bag the item in the smallest clear bag possible.
  6. Public Health MUST be contacted to arrange for the steps to be analyzed at either the WSLH (biological and/or chemical agent testing) or the City of Milwaukee Labs (biological agent testing only).

Wisconsin Procedure for Unknown Substance/Package Letter
A joint protocol produced by WIS Division of Public Health, WIS Division of Public Health, WIS Laboratory of Hygiene, USPIS, US agencies inspection Service, Capital Police, WIS Emergency Management, and the U.S. Civil Support Team (USCS)
WI State Asset Hazmat Teams
Training Course Breakdown

• 6hr course WEM sponsored
  • 2hr lecture
  • 4hr hands-on stations
• Team taught
  • 2-4 Hazmat
  • 1 WEM
  • 1-2 WSLH
• 13 sessions in 8mo
  • All Type I & II locations
  • Extra shifts
• Positive feedback
Protocols - Types of Samples

- Powder/crystals on surface
- Liquid on surface
- Large container or deep pool of liquid
- Small volume (powder or liquid) on surface
- Air samples using 2.7L canisters
- Open/closed container or large item
Sample Collection Protocols

- 3 person collection team
- C-P-R
  - Collector
  - Processor
  - Recorder
- Hands-on stations for each type of sample collection
- Collection protocols & materials
  - All-hazards approach
Sample Collection Kit Supplies
Unknown Sample Collection Protocols
Protocols in Action

- Unknown release, school evacuation (DHS)
- Explosion at facility (DHS, DNR, EPA)
- Gas incident, 300 residents displaced (DHS & DNR)
- Foodborne illness, trace elements request (DHS)
- Ricin manufacture (54th CST & FBI)
- Threat letters (3) white powder, one to a politician (USPS & FBI)
- Unknown gas (4) residential (DHS & DNR)
- Unknown environmental spill (3) (DHS & DNR)
- Unknown highway spill, major roadway closer (DNR & DHS)
- Illicit drug labs (3) (Hazmat & DHS)
- Ricin threat in workplace (FBI & DHS)
- Unknown exposure, resident in ICU (DHS)
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Organizations:
- Centers for Disease Control and Prevention (CDC) Chemical Laboratory Response Network (LRN-C)
- Wisconsin Association of Hazardous Materials Responders (WAHMR)
- Wisconsin Emergency Management (WEM)
- Association of Public Health Laboratories (APHL)
Thank You!

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