GENERAL ORDER 330.08

Suspicious Package/Substance Investigations

EMERGENCY SERVICES BUREAU

Issue Date: 7/6/2005
Revision Date: 3/30/2014

APPLICABILITY

All Personnel

POLICY

The Howard County Department of Fire and Rescue Services has established general information and operational guidelines for the investigation of suspicious packages/substances.

DEFINTIONS

- **Tactical Operations Guidelines (TOG) –** a guideline utilized to assist personnel in accomplishing tactical objectives of incident response. A TOG states in general terms what is expected to be accomplished and defines major assignments in general terms.

PROCEDURES

The resolution of any incident dispatched as a "powder investigation," "unknown substance" or "suspicious package" (or similar) shall be handled in accordance with the Special Operations Tactical Operations Guideline (TOG), "Suspicious Package/Substance Investigations" (**Attachment A**), and the "Suspicious Package/Substance Questionnaire" (**Attachment B**).

First arriving companies must ensure scene safety, correctly isolate and deny entry to the emergency scene, and begin triage/questioning of any patients. Specific procedures for mitigating the hazard are listed in the TOG based on the method used to transport the suspicious product. The Special Operations Team, or if unavailable, the next closest Hazardous Materials Response Team, will be dispatched to the scene to assist with the identification and mitigation of the incident.

Under no circumstances should members approach a suspicious package. Incidents involving suspicious packages/letters are to be treated as explosives until determined otherwise by police officials.

REFERENCES

SUMMARY OF DOCUMENT CHANGES

General Order updated using new format. Minor content changes. 08/29/2013,

FORMS/ATTACHMENTS

- Attachment A: Suspicious Package/Substance Investigations TOG
- Attachment B: Suspicious Package/Substance Questionnaire

APPROVED

Deputy Chief John S. Butler
Operations Command

Special Operations

Tactical Operations Guideline

Suspicious Package/Substance Investigations

Purpose: This Tactical Operations Guideline (TOG) establishes general information and operational guidelines for Suspicious Package/Substance Investigations.

GENERAL INFORMATION: This information is to be used as a guideline to determine the credibility of an incident and the corresponding appropriate level of responder protection.

High Credibility Targets

- Members of mass media
- Political figures
- Symbols of America's economic success
- Mail rooms and distribution locations
- High-profile facilities or people

Minimum Level of Protection (Level B II)

- Type F Suit
- SCBA
- Disposable inner and outer nitrile gloves
- Overboot or latex bootie

Low Credibility Targets

- Private homes
- Offices and stores

Minimum Level of Protection (Level C)

- Type F Suit
- PAPR/CBRN cartridges
- Facemask with A/P1000 cartridges
- Disposable inner and outer nitrile gloves
- Overboot or latex bootie

RESPONSE ACTIONS: This information is used as a guideline to direct the possible course of action to resolve the incident.

1. Request or verify need for local law enforcement and Fire Marshall at the scene and establish Unified Command and appoint the hazmat Incident Commander.

2. Perform site and safety assessment of area, including the Suspicious Package/Substance Questionnaire to determine the method for mitigation of hazard:

    a. Method A: High Credibility, Opened Suspicious Package;
    b. Method B: Low Credibility, Opened Suspicious Package;
    c. Method C: Substance Investigation;
    d. Method D: Closed Package or Letter

3. Isolate personnel and victim(s), deny entry.

4. Establish control zones and determine public protection actions.

5. Establish single stage decon set-up with 1 ¾" hose line from engine company.

6. Only personnel wearing minimum personal protective equipment (PPE) should approach contaminated victims.

7. Remove all individuals from immediate area and secure evidence (remember chain of custody applies if suspected crime scene).

8. Document all activity during incident.

Bio-Agent Priorities

First Priority *(Category A Agents)*

- Pose a very serious threat, resulting in high casualties or mortality rates
- Potential for major public health impact
- May cause public panic and social disruption
- Anthrax (Bacillus anthracis)
- Botulinum toxin (Clostridium botulinum)
- Plague (Yersinia pestis)
- Smallpox (Variola major)
- Tularemia (Francisella tularensis)
- Viral hemorrhagic fever (ie., Ebola)

Second Priority *(Category B Agents)*

- Can be moderately easy to disseminate
- Result in moderate morbidity rates and low mortality rates
- Brucellosis (Brucella species)
- Salmonella
- Q-fever (Coxiella burnetti)
- Ricin toxin (Ricinus communis, castor beans)
- Staphylococcal enterotoxin B (SEB)
- Typhus fever (Rickettsia prowazekii)
- Viral encephalitis

Third Priority *(Category C Agents)*

- Emerging pathogens that could be engineered for mass dissemination in the future because of:
    - Availability, including ease of production and dissemination and potential for high morbidity, mortality rates and major health impact.
    - Nipah virus
    - Hantavirus

Agent Information

ANTHRAX

- When properly aerosolized, 1 – 5 microns of anthrax may behave like a gas.
- Anthrax can pass through various urban obstacles, such as HVAC filters.
- Inside a building, anthrax spores can stay suspended in the air almost indefinitely.
- Anthrax may appear as an almost white to tan to dirty, dark brown powder.
- Weapons grade is a fluid powder that flows like water.
- You cannot see individual spores.
- Most practical methods of initiating infection via aerosolized spores include:
    - Crop duster,
    - High-pressure sprayer,
    - Fire extinguisher,
    - HVAC system, or
    - Through envelopes of a well-processed agent.
    - Spores could be spread by hand, but not very effectively.

RICIN

- Ricin is a toxin that can be made from the waste remaining after processing castor beans.
- It can be in the form of a powder, a mist, or a pellet.
- It can be dissolved in water or weak acid.
- It is a stable substance and is not affected by extremely hot or cold temperatures.
- Accidental exposure to ricin is highly unlikely.
- People can breathe in ricin mist or powder and be poisoned.
- Ricin can also get into water or food and then be swallowed.
- Pellets of ricin, or ricin dissolved in a liquid, can be injected into people's bodies.
- A 500 microgram dose of ricin (size of the head of a pin) could be enough to kill an adult.
- Ricin exposure is not contagious. It cannot be spread from person to person through casual contact.
- Death from ricin poisoning could take place within 36 to 72 hours of exposure, depending on the route of exposure and dose received. If death has not occurred in three to five days, the victim usually recovers.

Method A: High Credibility Target
Opened Letter or Package (suspected or credible high threat assessment)

- Minimum of Level B II PPE is required.
- Consult with victim(s) after removal from the immediately affected area.
- Assure completion of Suspicious Package/Substance Questionnaire.
- Contact bomb squad when package is suspected to contain an incendiary device or materials. If explosives of any nature are suspected, product identification operations shall not continue. Refer to Method D for evacuation and isolation distances.
- Characterize letter/package contents based on intelligence gathered by law enforcement and questionnaire.

TRACK 1

- No suspicious or credible threat or substance present:
  - Package may be discarded as determined by law enforcement.

TRACK 2

- Suspicious or credible threat or substance present:
  - Field testing not required (determined by law enforcement):
    - Disposition of letter/package determined by law enforcement.
  - Field testing required (determined by law enforcement):
    - Complete basic and/or advance sampling protocol.
    - Positive test shall require isolation and containment of package inside sealable container.
    - Care should be taken when handling packages to minimize airborne contamination.
    - Perform decontamination procedures (as required).

- If there is an actual or suspected bio-agent present, the incident shall be handled as a hazardous materials crime scene (chain of custody rules apply).
- Any communication of a threat or hoax is a crime; relay this information to law enforcement.
- Law enforcement officials will decide whether a negative test may be simply discarded or must be maintained by law enforcement for evidence.
- Complete the final consultation with victim(s).

Method B: Low Credibility Target
Opened Letter or Package

- Minimum of Level C PPE is required.
- Consult with victim(s) after removal from the immediately affected area.
- Assure completion of Suspicious Package/Substance Questionnaire.
- Contact bomb squad when package is suspected to contain an incendiary device or materials. If explosives of any nature are suspected, product identification operations shall not continue. Refer to Method D for evacuation and isolation distances.
- Characterize letter/package contents based on intelligence gathered by law enforcement and questionnaire.

TRACK 1

- No suspicious or credible threat or substance present:
  - Package may be discarded as determined by law enforcement.

TRACK 2

- Suspicious or credible threat or substance present:
  - Field testing not required (determined by law enforcement):
    - Disposition of letter/package determined by law enforcement.
  - Field testing required (determined by law enforcement):
    - Complete basic and/or advance sampling protocol.
    - Positive test shall require isolation and containment of package inside sealable container.
    - Care should be taken when handling packages to minimize airborne contamination.
    - Perform decontamination procedures (as required).

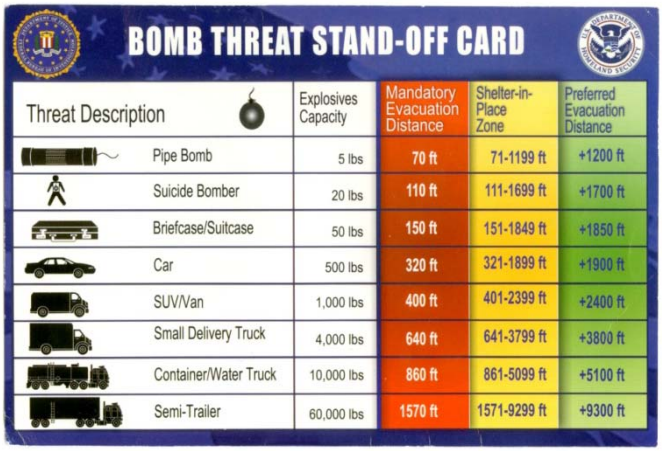
- If there is an actual or suspected bio-agent present, the incident shall be handled as a hazardous materials crime scene (chain of custody rules apply).
- Any communication of a threat or hoax is a crime; relay this information to law enforcement.
- Law enforcement officials will decide whether a negative test may be simply discarded or must be maintained by law enforcement for evidence.
- Complete the final consultation with victim(s).

Method C: Substance Investigation

- Minimum of Level C PPE is required.
- Consult with victim(s) after removal from the immediately affected area.
- Assure completion of Suspicious Package/Substance Questionnaire.
- Characterize substance based on intelligence gathered by law enforcement and questionnaire.
- Contact bomb squad when substance is suspected to be an explosive hazard. If explosives of any nature are suspected, product identification operations shall not continue. Refer to Method D for evacuation and isolation distances.
- **TRACK 1**
    - No suspicious or credible threat or any substance present:
        - Items may be discarded as determined by law enforcement.
- **TRACK 2**
    - Suspicious or credible substance present:
        - Field testing required (determined by law enforcement):
            - Complete basic and/or advance sampling protocol.
            - Positive test shall require isolation and containment of substance inside sealable container.
            - Care should be taken when bagging the substance to minimize airborne contamination.
            - Perform decontamination procedures (as required).
- If there is an actual or suspected bio-agent present, the incident shall be handled as a hazardous materials crime scene (chain of custody rules apply).
- Any communication of a threat or hoax is a crime; relay this information to law enforcement.
- Law enforcement officials will decide whether a negative test may be simply discarded or must be maintained by law enforcement for evidence.
- Complete the final consultation with victim(s).

Method D: Closed or Sealed Suspicious Package

- Consult with victim(s) after removal from the immediately affected area.
- Closed packages of suspicious origin should be handled as possible bomb until proven otherwise.
- Secure the area at least 850 ft. in accordance with the "Improvised Explosive Device (IED) Safe Standoff Distance Cheat Sheet." If this is not possible, refer to the "Bomb Threat Stand-off Card", below.
- Perform perimeter monitoring: radiological, CWA, and 4-gas detector
- Request Police Department for perimeter control and for establishing Unified Command.
- Notify Howard County Department of Fire and Rescue Services (HCDFRS) On Call Fire Investigator. The On Call Fire Investigator will act as the Liaison with the Bomb Squad, if required.



BOMB THREAT STAND-OFF CARD

Threat Description	Explosives Capacity	Mandatory Evacuation Distance	Shelter-in-Place Zone	Preferred Evacuation Distance
Pipe Bomb	5 lbs	70 ft	71-1199 ft	+1200 ft
Suicide Bomber	20 lbs	110 ft	111-1699 ft	+1700 ft
Briefcase/Suitcase	50 lbs	150 ft	151-1849 ft	+1850 ft
Car	500 lbs	320 ft	321-1899 ft	+1900 ft
SUV/Van	1,000 lbs	400 ft	401-2399 ft	+2400 ft
Small Delivery Truck	4,000 lbs	640 ft	641-3799 ft	+3800 ft
Container/Water Truck	10,000 lbs	860 ft	861-5099 ft	+5100 ft
Semi-Trailer	60,000 lbs	1570 ft	1571-9299 ft	+9300 ft

Contamination of Person by an Unknown Substance

- Level C protection is required.
- Consult with victim(s) after removal from the immediately affected area.
- Characterize contamination:
    - Hands only:
        - Wash with soap and water.
    - On clothing and/or body:
        - Use water to rinse contaminated area(s)
        - Remove and isolate contaminated clothing as soon as possible and place in a sealable container.
        - Care should be taken when placing clothing into container to minimize airborne contamination.
- Characterize substance:

TRACK 1

- No suspicious or credible threat or substance present:
    - Items may be discarded at the discretion of law enforcement.

TRACK 2

- Suspicious or credible substance present:
    - Complete basic and/or advance sampling protocol.
    - Positive test shall require isolation and containment of substance inside sealable container.
    - Care should be taken when placing substance into container to minimize airborne contamination.
    - Decontamination procedures (as required).

- If there is an actual or suspected bio-agent present, the incident shall be handled as a hazardous materials crime scene (chain of custody rules apply).
- Any communication of a threat or hoax is a crime; relay this information to law enforcement.
- Law enforcement officials will decide whether a negative test may be simply discarded or must be maintained by law enforcement for evidence.
- Complete the final consultation with victim(s).

Recommendations for the selection and use of chemical protective clothing and respiratory protection against UNKNOWN biological agents

1. Responders should use SCBA in conjunction with a Level A suit on a suspected biological incident when any of the following information is either unknown or the event is uncontrolled:
    a. The type(s) of airborne agent(s).
    b. The dissemination method.
    c. Dissemination via an aerosol-generating device is still occurring or it has stopped, but there is no information on the duration of dissemination or what the exposure concentration might be.

2. Responders may use a Level B II suit if the situation can be defined in which:
    a. The suspected biological aerosol is no longer being generated.
    b. Other conditions may present a splash hazard.

3. Responders may use a Level C suit with PAPRs containing high efficiency particulate air (HEPA) filters when it can be determined that:
    a. An aerosol-generating device was not used to create high airborne concentration.
    b. Dissemination was via a letter/package that can be easily bagged.

Field Sampling Protocol

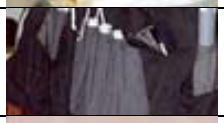
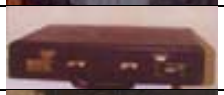
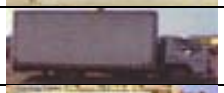
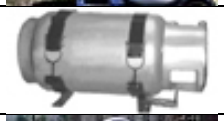
Basic Bio Protocol (Y = Yes; N = No)

Test Type	***Solid Material***	***Liquid Material***	***Results***
pH paper	Y	Y	<5 or >9 agent is not present due to corrosiveness
Spillfyter Strip	Y	Y	Read instructions
ChemStrip Test *Glucose & Protein*	Y	Y	Read instructions
Powder Screening Kit *Protein & pH*	Y	N	Color change for protein presence
Handheld Assay	Y	N	Positive/negative
Flour test *(see common powders test)*	Y	N	Will burn, is water soluble and reacts positively to iodine test
Talcum, baking soda, plaster, sugar, salt, corn starch *(see common powders test)*	Y	N	Will not burn, is not water soluble, and does not react to iodine test

Advance Protocol (Y = Yes; No = No)

Test Type	***Solid Material***	***Liquid Material***	***Results***
First Defender	Y	Y	Specimen match
HazmatID	Y	Y	Specimen match
RazorEX	Y	Y	~30min
Lab Analysis	Y	Y	1 – 3 days

Improvised Explosive Device (IED) Safe Standoff Distances

	Threat Description		Explosives Mass[1] (TNT equivalent)	Building Evacuation Distance[2]	Outdoor Evacuation Distance[3]
High Explosives (TNT Equivalent)		Pipe Bomb	5 lbs 2.3 kg	70 ft 21 m	850 ft 259 m
		Suicide Belt	10 lbs 4.5 kg	90 ft 27 m	1,080 ft 330 m
		Suicide Vest	20 lbs 9 kg	110 ft 34 m	1,360 ft 415 m
		Briefcase/Suitcase Bomb	50 lbs 23 kg	150 ft 46 m	1,850 ft 564 m
		Compact Sedan	500 lbs 227 kg	320 ft 98 m	1,500 ft 457 m
		Sedan	1,000 lbs 454 kg	400 ft 122 m	1,750 ft 534 m
		Passenger/Cargo Van	4,000 lbs 1,814 kg	640 ft 195 m	2,750 ft 838 m
		Small Moving Van/ Delivery Truck	10,000 lbs 4,536 kg	860 ft 263 m	3,750 ft 1,143 m
		Moving Van/Water Truck	30,000 lbs 13,608 kg	1,240 ft 375 m	6,500 ft 1,982 m
		Semitrailer	60,000 lbs 27,216 kg	1,570 ft 475 m	7,000 ft 2,134 m
	Threat Description		**LPG Mass/Volume[1]**	**Fireball Diameter[4]**	**Safe Distance[5]**
Liquefied Petroleum Gas (LPG - Butane or Propane)		Small LPG Tank	20 lbs/5 gal 9 kg/19 l	40 ft 12 m	160 ft 48 m
		Large LPG Tank	100 lbs/25 gal 45 kg/95 l	69 ft 21 m	276 ft 84 m
		Commercial/Residential LPG Tank	2,000 lbs/500 gal 907 kg/1,893 l	184 ft 56 m	736 ft 224 m
		Small LPG Truck	8,000 lbs/2,000 gal 3,630 kg/7,570 l	292 ft 89 m	1,168 ft 356 m
		Semitanker LPG	40,000 lbs/10,000 gal 18,144 kg/37,850 l	499 ft 152 m	1,996 ft 608 m

[1] Based on the maximum amount of material that could reasonably fit into a container or vehicle. Variations possible.
[2] Governed by the ability of an unreinforced building to withstand severe damage or collapse.
[3] Governed by the greater of fragment throw distance or glass breakage/falling glass hazard distance. These distances can be reduced for personnel wearing ballistic protection. Note that the pipe bomb, suicide belt/vest, and briefcase/suitcase bomb are assumed to have a fragmentation characteristic that requires greater standoff distances than an equal amount of explosives in a vehicle.
[4] Assuming efficient mixing of the flammable gas with ambient air.
[5] Determined by U.S. firefighting practices wherein safe distances are approximately 4 times the flame height. Note that an LPG tank filled with high explosives would require a significantly greater standoff distance than if it were filled with LPG.

Howard County Fire & Rescue
Special Operations Team
Suspicious Package/Substance Questionnaire

Incident #: _____ Date: _____ OIC: _____

Person completing questionnaire: _____

Victim

Name: _____ Phone: _____ DOB: _____

Home Address: _____

Residence: **Y** / **N**

Business Name: _____

Type of Business: _____

Business Address: _____

Occupation of Victim: _____ Duties: _____

Have you received threats by mail or telephone before?: **Y** / **N**
If yes, give details: _____

Why do you think you would be targeted? _____

Package/Envelope

Who or what is listed as the addressee on the package /envelope?

_____

Who or what is listed as the return address on the package / envelope?

_____

Is the victim familiar with the sender? **Y** / **N**

Is the info typewritten or handwritten? _____

Does the package have a postmark? **Y** / **N** From where? _____

What kind of package (business, personal, etc)? _____

Does the package have a seal (tape, adhesive, etc)? _____

Are there any additional markings on the exterior ? _____

Are there any stains on the exterior ? **Y** / **N**

Describe: _____

Letter

Summary of letter contents: _____

_____

Is there an overt threat contained within the letter? **Y** / **N**

Provide exact wording of threat _____

Are there any stains visible on the letter? **Y** / **N**

Describe: _____

Foreign Material Within the Envelope / Package

Describe material found within the envelope / package:

Solid Material
Color: _____
Granule size and shape: _____
Odor: _____
Did the product become airborne: _____

Liquid
Container size: _____
Container type, shape, material: _____
Color: _____
Transparent or opaque: _____
Is the liquid leaking from the container? _____

Exposure

When was the envelope / package received? Date/Time:

_____

What was the mode of delivery (US mail, UPS, FedEx)? _____

What is the current location of the envelope / package, letter?

_____

What areas of the body were exposed to the product? _____

Was there a spill? **Y** / **N** If yes, how large? _____

How many others had contact with the envelope/ package or product?

_____

(Obtain name, address and telephone number and the location in the building and what the person was doing, of each additional person exposed. Place this information in the "Notes" section of this report.)

Health

Is the victim experiencing any physical symptoms? **Y** / **N**

If yes, describe: _____

_____

How long after the exposure did the symptoms occur? _____

Has the victim already seen a doctor? **Y** / **N**

Name of doctor: _____

Address: _____

Phone Number: _____

Notifications

What other agency has the victim notified? _____

Was the sample submitted for testing? **Y** / N

Name of laboratory: _____

Name and badge number of Law Enforcement on scene: _____

Notes:

(Additional information relevant to the investigation)