Chemical and Biological Threats to Food Retailers

Point-of-sale food retailers nationwide, such as supermarkets, supercenters, warehouse groceries, and club, gourmet, and convenience stores, may be vulnerable to attacks with chemical or biological materials, although overall interest in such attack methods remains low. Both domestic and international terrorists have promoted attacks against soft targets, including the US food industry at retail locations. Although we have yet to observe a sustained interest in targeting retail food establishments, they may be an attractive target because of their accessibility and the potential for an attack to create significant harm. Violent extremists, possibly to stoke fear, have advocated through online platforms for people to poison or tamper with food in grocery stores:

- In March 2020, US-based violent extremists encouraged followers online to contaminate US food supplies including food retailers such as grocery stores with COVID-19 by coughing on food.
- In March 2020, ISIS supporters distributed an online magazine encouraging attacks, including poisoning food and water.
- In January 2019, ISIS supporters posted a message on social media, threatening to poison the food that a member of British royalty bought at a local supermarket.
- In September 2018, pro-ISIS media group Muharir al-Ansar published an English-language poster on social media stating, “O Crusaders...In your food you will find special flavors that we have prepared for you, so wait and behold.”

SCOPE: This product provides awareness of potential chemical and biological threats to the US food industry at the point-of-sale and highlights preventive measures, considerations and resources for public safety and private sector stakeholders.

Poster from Muharir al-Ansar

1Point-of-sale is the physical structure where food and related goods are retailed and sold.
2Chemical threat agents can be poisonous vapors, aerosols, liquids, or solids that have toxic effects on people. The chemicals can be naturally occurring in the environment or synthetically produced.
3Biological threat agents are biological pathogens or toxins that pose a severe threat to public, animal, and/or plant health through accidental or deliberate misuse.

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**POTENTIAL INDICATORS OF A CHEMICAL OR BIOLOGICAL ATTACK:** First responders, public safety officials, and food retail personnel should familiarize themselves with potential indicators of contamination. The intentional contamination of food may not be immediately recognizable until law enforcement investigations and lab testing is completed. Therefore, EMS and public health and hospital personnel may be the first to recognize indicators of the use of chemical or biological material, including the delayed onset of indicators. Lastly, knowing which indicators to look for can help first responders determine the proper resource requests, improve response times and efforts, enhance threat reporting and information sharing, and help guide investigations.

**WARNING:** Some of the activities described may be constitutionally protected and innocuous. The totality of behavioral indicators should be evaluated for law enforcement response or action. The activities should not be reported absent articulable facts and circumstances that support an assessment that the observed behavior is not innocent, but rather reasonably indicative of violent or criminal activity, including those associated with terrorism.

**BEHAVIORAL INDICATORS**
- Long or otherwise noteworthy visits without purchase (surveillance)
- Loitering
- Entering with packages and non-empty bags
- Purposeful and unusual attempts of avoiding contact with employees
- Employees working in areas outside of their department without authorization
- Suspicious requests or inquiries
- Attempts to access restricted areas
- Unscheduled distributor activity
- Lack of or improper uniforms, credentials, or identification
- Equipment tampering
- Unnecessary off-hour access requests

**PHYSICAL INDICATORS**
- Unusual bruising in produce
- Unusual discoloring
- Unusual appearance
- Unusual smells
- Unexpected rotting
- Unexpected presence of powders
- Punctured or tampered food, beverage, or health and beauty products
- Suspicious objects or items (needles, spray bottles)
- Abandoned packaging
- Open packages or broken seals
- Out-of-date products
- Misaligned product codes
- Incorrect pH levels

**CHEMICAL INDICATORS**
- Reports of a device that dispersed a mist or vapor
- Unexplained burns or injuries
- Multiple or mass casualties exhibiting similar symptoms with no apparent reason or physical trauma
- Reports of unusual odors
- Presence of personal protective equipment (PPE) inconsistent with current use in retail food establishments
- Suspicious or unexplained packages, vehicles, devices or containers
- Explosion with little or no structural damage

**BIOLOGICAL INDICATORS**
- Reports of a device that dispersed a mist or vapor
- Multiple or mass casualties exhibiting similar symptoms with no apparent reason or physical trauma
- Reports of unusual odors
- Presence of PPE that is inconsistent with current use in retail food establishments
- Suspicious or unexplained packages, vehicles, devices or containers
- Disease cases that are unusual for a given geographic area or transmission season
PRIVATE SECTOR PREVENTIVE MEASURES: Retail products may be vulnerable to contamination or tampering, highlighting the importance for retailers to implement and practice active safety measures to lower such risks. The following measures may aid in the prevention of chemical or biological attacks:

- Conduct routine screening, vetting and supervising of employees, including contractors, distributors and vendors, to prevent unauthorized access to restricted areas during all hours.
- Notify appropriate authorities if a food-related emergency or suspicious incident occurs.
- Maintain records of returned goods.
- Ensure the traceability and recall of products.
- Maintain control and chain of custody of potential evidence for investigators and law enforcement, such as the US Department of Agriculture, US Food and Drug Administration, and FBI.
- Do not throw away possible or suspected tampered goods that may serve as evidence for law enforcement.
- Perform routine checks for products (food, medicine, and health and beauty supplies) with damaged or compromised packaging, and evidence of adulteration.
- Increase surveillance and perform random checks in restricted areas (receiving or loading docks, chemical storage closets, misting systems, backroom storage spaces and coolers), particularly in those areas that lack security cameras.
- Routinely check for modifications, functionality, and cleanliness of equipment and appliances.
- Routinely check for appropriate temperatures of refrigerated cases.
- Maintain awareness of current threats against food retailers, and establish an information-sharing network with other retailers.
- **If you see something, say something**

PUBLIC SAFETY CONSIDERATIONS: First responders can benefit from incorporating the following actions into their training, exercises, and response efforts:

- Establish command post and triage locations that are isolated at safe distances to avoid contaminating or infecting first responders.
- Determine PPE and quarantine requirements to prevent further contamination or infection of public space and responding personnel.
- Seal points of ingress/egress to prevent contaminants from escaping.
• Establish a single point of contact who is familiar with the potential threat and the interior layout to maintain clear lines of communication and information sharing.

• Maintain information potentially useful to an investigation to include purchase histories, receipts with time of purchase to determine potential agents, predicted illness outcomes, and surveillance footage.

• Know hospital locations capable of responding to potential chemical and biological attacks.

• Be familiar with agency-specific intelligence- and information-sharing practices. This can include memorandums of understanding, media strategies, and appropriate reporting procedures to hospitals, laboratories, and the Centers for Disease Control and Prevention (CDC).

RESOURCES

• CDC: The CDC conducts critical science and provides health information that protects the United States against health threats and responds to incidents when requested.
  
  o Website: www.cdc.gov
  
  o List of Nationally Notifiable Conditions: www.cste.org/resource/resmgr/PDFs/CSTENotifiableConditionListA.pdf
  
  o PULSENET (USA and International) is a national laboratory network that connects foodborne illness cases to detect outbreaks: https://www.cdc.gov/pulsenet

• DHS
  
  o DHS FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) CENTER FOR DOMESTIC PREPAREDNESS (CDP): DHS’s WMD training center for emergency response providers. Visit https://cdp.dhs.gov/ or contact 1-866-213-9553
  
  
  o DHS S&T CHEMICAL SECURITY ANALYSIS CENTER (CSAC) assesses the risks posed by chemical threats, to include intentional adulteration of food with toxic chemicals. CSAC also provides 24/7 chemical support for incident planning, immediate response, and post-incident operations. 24/7 CSAC Technical Assistance: 410-417-0910 (Hot Line); S&TCSACReachback@st.dhs.gov
  

• FDA
  
  o To find your local Office of Criminal Investigations field office: https://www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/criminal-investigations/field-office-contact-information
  
  
• FBI
  o WMD COORDINATOR:
    ▪ To find your local FBI field office: https://www.fbi.gov/contact-us/field
    ▪ To report suspicious activity: 855-TELL-FBI (855-835-5324)
  o FBI WMD “FOOD DEFENSE AWARENESS AND OUTREACH” BROCHURE on protecting the food supply from intentional contamination with chemical, biological, or radiological agents: https://www.fbi.gov/file-repository/commercial-facilities-food-defense.pdf/view
  o FBI JOINT CRIMINAL AND EPIDEMIOLOGICAL INVESTIGATIONS HANDBOOK (2016) helps law enforcement and public health understand the goals and needs of the other organization: https://www.fbi.gov/file-repository/joint-criminal-and-epidemiological-investigations-handbook-2016-international-edition/view
• LABORATORY RESPONSE NETWORK (LRN) is a national security asset consisting of partnerships among government and private organizations: https://emergency.cdc.gov/lrn/index.asp
• US ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES (USAMRIID) is the DoD lead for the development, testing, and evaluation of medical countermeasures: https://www.usamriid.army.mil/education/instruct.htm