Mail Threats: How to Plan for the Worst

WHITE PAPER / MAIL SCREENING SOLUTIONS

Threats concealed in envelopes and packages can pose serious danger to both facilities and its occupants. However, Facility Managers seldom assess or mitigate the risk exposure from threats concealed in incoming mail and parcels. This paper explores situations your facilities may encounter and how the potential consequences can be overcome by implementing one or more screening methods, customized to address the risk profile your facility may be exposed to.

INTRODUCTION

Billions of envelopes and parcels are delivered each year to businesses around the world. While postal and parcel services have some checks in place to detect certain types of threats in transit, the sheer volume of envelopes and packages that pass through their systems presents a significant security challenge. As a result, additional screening measures are needed within mail rooms and processing centers to assure that mail and deliveries are indeed safe.

Many facilities have policies in place that prevent security personnel from opening and inspecting items before they are delivered to their final recipient. Even if personnel are allowed to open every envelope and package that enters a facility and manually inspect their contents, it would be incredibly time consuming, not to mention unsafe without some form of preliminary screening. In addition, they will only be able to uncover visible threats that are not well concealed.

Since explosives, weapons, narcotics, and biological agents may not always be visible to the naked eye, technology is needed, especially for high risk facilities that handle mail for government administration, major brands, or high profile personnel.

SCENARIO #1: MAIL BOMBS

An office building based in Paris, France is home to several media companies, ranging from a newspaper to an internet radio company. Employing controversial editors and radio personalities brings in high ratings, but also attracts a lot of hostility when sensitive viewpoints are written about or discussed on the air.

The front of the building is often the setting for unruly protests. Management routinely receives threats by phone and e-mail. One day an oddly shaped package arrived via international parcel carrier. A faint electronic buzzing could be heard emanating from the inside of the

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box, and strange writing was scribbled on the outside of of the package. Not having any idea how to handle this potential threat item, security staff called the police. A bomb squad was called in and the building's 1,200 occupants were evacuated and operations are shut down for six hours.

While the facility manager and security team has gone to great lengths to secure the front entrance, with multiple people screening measures in place, they realize after this incident that there is a large gap in security that needs to be addressed – how mail and deliveries are screened. As a result the building has procured an X-ray inspection system.

There is a wide range of threats that X-ray inspection systems can help detect including, weapons, narcotics (when packaged in large amounts), explosives, and suspicious liquids. Facilities that receive mail can use X-ray inspection systems to screen envelopes, packages, and palletized freight.

A small, compact, mobile X-ray inspection system such as the HI-SCAN 5030C is just the right size for screening envelopes and small packages. This entry level X-ray inspection system is affordably priced for every organization and can be easily transported within a facility if screening is needed at different locations, reducing the likelihood of a facility needing multiple stationary systems. The system has one X-ray generator, which provides a single view of a scanned object. Single view systems like the HI-SCAN 5030C are practical for facilities that do not see a very high volume of items.

Facilities that receive a high volume of mail and deliveries may find the HI-SCAN 6040-2is is better suited for them. Possessing two X-ray generators, the HI-SCAN 6040-2is simultaneously captures horizontal and vertical views of what is being screened, thereby eliminating the need to reposition items, resulting in expedited screening operations. Multiple views can also provide additional information about the nature of the material being scanned.

Facilities that regularly accept large packages or palletized freight can benefit from a HI-SCAN 7555si, HI-SCAN 100100V-2is, or HI-SCAN 145180-2is pro. These larger systems can screen packages stacked together, reducing the need for packages to be separated. Additionally, their conveyor systems are constructed to handle heavy loads that smaller systems are not designed to carry.

HI-SCAN 5030C

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HI-SCAN 6040-2is

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Facilities that are concerned with weapons entering their premises by mail or delivery should strongly consider adding the iCMORE Weapons software option to their X-ray inspection system. This software utilizes a massive pre-loaded image library of large knives, firearms, firearm parts, and ammunition to assist operators in detecting dangerous weapons and components. The software draws a box around the suspected weapon to show the screener exactly where the potential threat is located. iCMORE is powered by deep learning artificial intelligence that learns the shape and characteristics of newly found weapons to build upon its detection library. iCMORE takes the guess work out of screening for weapons and lessens operator training and experience needed to be effective.

SCENARIO #2: SMUGGLED NARCOTICS

A correctional facility located in São Paulo, Brazil houses thousands of inmates. The facility has recently experienced a number of overdoses, which has generated a lot of bad publicity for the prison and resulted in multiple lawsuits from inmates and their litigious families. The facility prides itself on screening every inmate and member of the correctional staff as they enter the facility, so the warden was convinced that another method was being used to smuggle narcotics into the facility.

Discussions with an inside informant revealed that cocaine was being smuggled into the facility by way of toilet paper. Prisoners with the help of perpetrators on the outside figured out a way to smuggle liquefied cocaine absorbed in toilet paper into the facility. A method called "parachuting" allowed the prisoners to ingest the toilet paper to become intoxicated. The liquefied cocaine when absorbed into the toilet paper was invisible to the naked eye and the deliveries slipped past security personnel as seemingly harmless sundries.

To close this gap in security, the prison procured a trace detection system. A trace detection system is used to detect invisible amounts of explosives and narcotics at the molecular level to alert personnel to the presence of these dangers. If trace amounts of a threat substance are found on the surfaces of papers, envelopes or packages, it could be an indicator of a larger amount hidden within.

One example of a trace detection system is the IONSCAN 600. This system utilizes a swab that can be rubbed along letters, envelopes, and packages to be analyzed for invisible

iCMORE

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IONSCAN 600

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amounts of narcotics and explosives. The system is lightweight, can be battery operated, and is designed to be carried using one hand.

Once a swab is inserted into the IONSCAN 600, results are produced as fast as 10 seconds and appear on its LCD screen for operators to easily interpret. Its continuously improving detection library has new synthetic cannabinoid and fentanyl detection capability.

When used in conjunction with an X-ray inspection system, a safety protocol can be put in place that requires a screener to analyze the outside of a suspicious envelope or package with a trace detector before it is opened. Also, trace detection can make mail screening very efficient, since mail can be swabbed and analyzed in batches. When multiple pieces of mail are swabbed and analyzed, they can be cleared without having to analyze each piece of mail individually.

When suspicious powders, liquids and gels are found in visible quantities, facilities can use a chemical identifier to figure out if they are dealing with a threat or a harmless material. Instead of evacuating an entire facility and calling in local authorities to help identify an unknown substance, trained facility personnel can quickly determine the identity of a substance themselves with a portable system.

One chemical identifier that facilities may consider acquiring is the HazMatID Elite. This handheld unknown substance identifier comes pre-loaded with the ability to identify thousands of chemicals in less than one minute and the option to purchase additional software which boosts its identification capability beyond 10,000 chemicals.

SCENARIO #3: BIOLOGICAL THREATS

A prominent businesswoman in New York City, USA has opened a campaign headquarters staffed with 45 volunteers in a bid to run for an open seat in the Senate. No stranger to controversy, this political hopeful takes a stand on numerous human rights issues that attract the attention of radical groups that want to prevent her from winning office.

One day the politician opens an envelope addressed to her that creates a puff of white powder in the air, causing her respiratory distress. The entire building becomes a hazardous materials scene and is sealed off by the fire department. She is rushed to the hospital in dire medical condition.

HazMatID Elite

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As a result of this incident, the campaign headquarters instituted a strict mail screening protocol in which all incoming mail would be screened for biological threats before reaching the businesswoman.

CANARY is a tested and proven method of biological pathogen screening, providing facilities with a method to quickly and accurately detect and identify biological agents in the mail that could pose a danger.

Many pathogens can pose a unique risk to the health and safety of a facility's occupants, so it is best to adopt a technology that can detect a range of the biological agents and identify exactly which agent of concern is present. This allows for an appropriate and efficient response based on the threat and accurate communication with medical personnel if necessary.

Smiths Detection's BioFlash MailGuard System, is a ready to use mail screening solution for both packages and envelopes. The system is comprised of a BioFlash biological identifier, mail shaker, downdraft booth, and refrigerator for consumables storage. Utilizing CANARY technology, the system provides rapid, sensitive, and specific identification of common biological agents including anthrax, ricin, botulinum toxin, black plague, tularemia, and smallpox. In addition, there is a SARS-CoV-2 detection and identification capability. During the screening process mail is shaken to loosen any pathogens from envelopes and packages. The down draft booth moves air from the shaker towards the BioFlash where it is analyzed.

CONCLUSION

Threats are continuously evolving, becoming more cleverly concealed and sophisticated in design. Facilities can stay one step ahead of these threats with the right technology and intelligent software, while reducing their liability and revenue loss and safeguarding their occupants. Facilities should carefully evaluate all their security risks and develop a compressive security screening program. By adopting two or more screening methods, the effectiveness in detecting and identifying threats will increase.

MailGuard System

A number of pathogens can pose a risk to the health and safety of a facility's occupants, so it is best to adopt a technology that can detect a range of these dangerous biological agents.

BioFlash

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For more information, visit our site at:

http://www.smithsdetection.com/solution/mail-room-threat-detection-screening

If you would like to know more about Smith Detection and how we help make the world a safer place, you can get in touch at:

www.smithsdetection.com/contact-us

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