

Biohazard Detection System (BDS) Alert Response Exercise Summary

Full-Scale Exercise conducted in the City and County of San Francisco, California July 20, 2005

Summary by: San Francisco Department of Public Health Communicable Disease Control & Prevention Section

BACKGROUND AND EXERCISE OVERVIEW

The Biohazard Detection System (BDS) Alert Response Exercise was a biological terrorism and infectious disease emergency event exercise conducted on July 20th, 2005 between 10:00am and 2:00pm in the City and County of San Francisco. Local emergency responders and the United States Postal Service (USPS) employees participated in this full scale, field-mobilization exercise conducted at the USPS San Francisco Mail Processing and Distribution Center (P&DC). The purpose of this exercise was to solidify a working partnership between the USPS and emergency response agencies, facilitate the development of a local response plan, and evaluate a multi-agency response to a positive result for anthrax from the mail processing equipment.

The exercise was sponsored by USPS and Earth Tech, a contract agency that provided support for exercise development and coordination. Agencies that participated in BDS alarm response, and their respective response functionalities, include:

| Participating Agency | Post-BDS-alert response functionalities exercised |
|---|---|
| U.S. Postal Service, San Francisco District & Mail Processing and Distribution Center (SF P&DC) | Evacuate USPS employees Halt mail-processing machinery Notify the San Francisco Emergency Communications Department to begin call-down of all San Francisco response agencies |
| San Francisco Office of Emergency Services and Homeland Security (SF OES) | Activate the San Francisco Emergency Operations Center^ |
| SFDPH Office of Policy and Planning (OPP) | Activate the SFDPH Departmental Operations Center |
| San Francisco Emergency Communica- tions Department (ECD) | Begin call-down of all San Francisco response agencies Address inquiries from the public per protocol^ |
| San Francisco Police Department (SFPD) | Maintain traffic control, outer perimeter security, responder protection and crowd control Participate in Unified Command at SF P&DC |
| San Francisco Sheriff's Department (SFSD) | Maintain responder protection and crowd control Participate in Unified Command at SF P&DC |
| San Francisco Fire Department (SFFD) | Hazardous Materials Team – conduct gross, technical and dry decontamination for USPS employees Emergency Medical Services – provide medical assistance to employees in contaminated zones. Transport local antibiotics cache from storage site to mass prophylaxis site* Participate in Unified Command at SF P&DC |

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| Participating Agency | Post-BDS-alert response functionalities exercised |
|---|---|
| SFDPH Environmental Health Section, Hazardous Materials Team (EHS HazMat) | Provide technical assistance during decontamination process |
| • SFDPH Emergency Medical Services (EMS) | Provide medical assistance to responders and employees Facilitated the transport of local antibiotics cache from storage site to mass prophylaxis site* |
| SFDPH Communicable Diseases Control & Prevention Section (CDCP) | Provide prophylaxis to all potentially exposed USPS employees Participate in Unified Command at SF P&DC Activate the Infectious Disease Emergencies Group at 101 Grove Street to support SFDPH CDCP field response and to create and disseminate clinician and public educational materials |
| U.S. Postal Inspection Service (USPIS) | Remove cartridge from the BDS machine Transport cartridge to the California Department of Health Services, Richmond Laboratory for confirmatory testing Participate in Unified Command at SF P&DC |
| California Highway Patrol | Escort USPIS in cartridge transport |
| California Department of Health Service Richmond Laboratories | Conduct confirmatory testing of cartridge materials Notify appropriate agencies with test results |

^{*} tested during exercise, but not a part of normal BDS alarm response

SUMMARY OF RESULTS

The planning and execution of the BDS Alert Response Exercise successfully accomplished its general objectives. Protocols for notification, Emergency Call Dispatch call-taking procedures, activating Unified Command, personal protective equipment recommendations for emergency responders, decontamination, mass prophylaxis and risk communication were developed as a result of the exercise.

Key **strengths** identified during this exercise include:

- Participation and collaboration among emergency response agencies to develop a local response plan for a specific infectious disease emergency. We demonstrated that the BDS Response Plan can facilitate safety, calmness, risk communication, and health interventions for a large number of potential victims.
- All of the several hundred USPS employees in the facility participated in the evacuation; 30 employees participated in decontamination, 130 employees participated in the mass prophylaxis.
- Notification procedure for emergency responders was effective and efficient.
- Equipment for each of the following decontamination methods were set-up within one hour: a) gross decontamination (using cold water delivered directly to disrobed potential victims through water pumps from two fire engines), b) technical decontamination (using showers where potential victims disrobe and lather skin using a soapy water spray), and c) dry decontamination (using antibacterial wipes on areas of exposed skin after outer garment removal). Average times for decontamination were: 10 minutes per person when individual instructions were given for all methods, and approximately 5 minutes per person for gross or technical decontamination and 3 minutes per person for dry decontamination when group instructions were given.
- The Mass Prophylaxis Clinic organizers set up the clinic and trained SFDPH volunteer staff to operate the clinic within the timeframe allotted. The clinic tested a screening protocol and form that efficiently processed patients in a reasonable amount of time while minimizing potential drug interactions; the rate of patient processing (130 persons/hour) was satisfactory to both USPS and SFDPH.

[^] not exercised on July 2005

The Infectious Disease Emergencies Group of the San Francisco Department of Public Health produced clinician and public education materials that were disseminated via a website; an informational hotline for public inquiries was also activated for this exercise.

Lessons learned and areas for improvement for each response functionality are outlined as follows:

- Unified Command: Staff from all agencies serving in Unified Command should receive training on the responsibilities of being an agency representative or the Operations Section Chief at Unified Command. In addition to having a representative from the United States Postal Inspection Service present at Unified Command, a non-contaminated representative from the San Francisco Mail Processing and Distribution Center (SF P&DC) should also be present to provide information regarding operations at the site.
- **Decontamination of USPS employees**: Agencies involved in USPS employee decontamination should arrive at a decision regarding the most acceptable, feasible and efficient methods for decontamination. From this exercise, we learned that the disrobing/robing process was the most time-consuming part of decontamination and the modesty tents did not function well without anchors due to the windy conditions. Ensure that San Francisco Fire Department staff are trained on all recommended decontamination methods.
- Operation of the on-site Mass Prophylaxis Clinic: Because the availability of an enclosed space for mass prophylaxis cannot be guaranteed, identify alternate sites or consider next-day prophylaxis using point-of-distribution sites already identified by SFDPH. Partner with USPS to identify, purchase, organize, store and inventory equipment and recruit USPS staff needed for efficient clinic set-up. Also consider pre-event recruitment and training of SFDPH clinic staff due to the anticipated late hours of an alarm, transportation issues and staggered arrival times to the San Francisco Mail P&DC site. Finally, by using the medical information collected from USPS employees during the exercise, medical screening protocol and forms, clinic layout and health education materials were streamlined to make them more amenable to self-screening, more ciprofloxacin-dominant, and to include more opportunities for employees to ask medical questions.
- **Pre-event USPS employee education**. Prepare USPS employees on a pre-event basis by instructing them on: a) the decontamination and mass prophylaxis process, b) being informed of their own medications and medical conditions for medical screening, c) when to take antibiotics, and d) other medication-related information. This will help speed up the decontamination and mass prophylaxis processes.
- Activation of the Infectious Disease Emergencies (IDE) Group: These relationships need to be clarified: a) the type of information to be collected and projected by the IDE Group Planning/Intelligence Section and the Departmental Operating Center (DOC) Planning Section, as well as responsibilities for writing the Incident Action Plan; b) how the IDE Group, Unified Command and field operations conducted by SFDPH report to the DOC. Include the content of and schedules for reporting in the BDS response plan.
- Clinician Alert and Public Education: On a pre-event basis, identify all audience groups who need to receive relevant health information during a BDS alarm, all associated communication methods, and the party responsible for producing each educational product. Pre-determine the process and level of approval that is needed before the product may be released to the public during an event.
- Mobilization of the San Francisco local antibiotic cache: All agencies and agency staff involved in mobilizing, transporting and receiving the local antibiotic cache should be informed of the mobilization protocol. Paperwork, similar in concept to chain-of-custody documentation, should be developed and accompany the antibiotic cache to ensure accountability and security of the cache during transport and receipt.

The issues and recommendations identified in this evaluation has informed the revision of the San Francisco BDS Response Plan.

This summary was produced by the San Francisco Department of Public Health, Communicable Disease Control & Prevention Section. To contact us, please e-mail carmen.d.nolasco@sfdph.org.

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