Category "A" Infectious Substance Decontamination Services

STATEMENT OF WORK

I. BACKGROUND

A "Category A" biological threat includes smallpox, anthrax, botulism, viral hemorrhagic fevers (Ebola), plague, and tularemia. An Ebola outbreak in West Africa increases the possibility of patients with Ebola traveling from the affected countries to Los Angeles County. The prevention strategy for Ebola includes actions to avoid exposure to blood or body fluids of infected individuals, since infection is spread through contact with skin, mucous membranes of the eyes, nose, or mouth, or injuries with contaminated needles or other sharp objects. Environmental cleaning and disinfection of areas that may have been contaminated by an infected patient, as well as safe handling of all potentially contaminated materials, are essential measures necessary to reduce the risk of contact with blood, saliva, feces, and other body fluids.

II. PROCEDURES

A. Specific Work Requirements

1. Contractor shall maintain 24/7/365 contact accessibility with Department of Public Health (DPH) for both Contractor's primary and alternate representatives.

2. Contractor shall immediately, and no later than six (6) hours from notification by DPH for remediation services dispatch all appropriate and necessary personnel and equipment to the location(s) requiring decontamination/cleanup.

3. Contractor shall notify DPH of the assignment of the response staff, the time of each team's departure to the site, and the time of their arrival on- scene. (Note: Notify DPH when teams depart, as well.)

4. Contractor's lead representative shall use a waterproof digital camera to quickly document the condition of the entire scene which will be subject to

contracted cleaning/decontamination activities immediately prior to the commencement of these activities, with special attention to areas/items having existing damage or high value.

5. Upon arrival at the site, a Contractor lead-staff member shall promptly contact:
    a) On-site emergency response incident management personnel.
    b) DPH representative if present; and
    c) The individual responsible for resource tracking, in order to advise them of the contracted services.

6. As appropriate, and especially in any incidence where there is not an on-site DPH representative, Contractor's lead-staff member shall promptly contact the representative of the property's tenant and advise the party of the contracted services.

7. Contractor shall coordinate with DPH to ensure law enforcement is notified that they will be performing decontamination/cleanup at the assigned locations.

8. Exclusion Zone shall be established along with varying degrees of contaminated areas and must be in accordance with law enforcement agencies and/or DPH.

9. Determine machinery tolerance in order to properly and safely decontaminate machinery or delicate items.

10. Contractor's designated personnel shall select and assess the appropriate PPE gear prior to entering Exclusion Zone(s).

11. For vehicle decontamination, in addition to the procedures outlined herein, Contractor's staff shall follow OSHA procedures for *Cleaning and Decontamination of Ebola on Surfaces* found at: https://www.osha.gov/Publications/OSHA_FS-3756.pdf

12. Contractor shall conduct a safety meeting, including participation by the entire crew and approved County personnel, prior to any entry into an Exclusion Zone. Include a briefing on Exclusion Zone(s) boundaries and scene-specific protocols, especially identification of the scene layout and key work and safety procedures to be followed. Address the operations plan for each stage of cleaning and decontamination, including roles of individual staff members, their assigned location, as well as the

decontamination area(s), waste deposit area, and process for drum exchanges.

13. Contractor shall measure and record Vital signs of personnel during the meeting.

14. Additional Contractor support personnel shall be located outside the Exclusion Zone, and shall assist in ensuring all provisions (supplies, tools, and/or equipment) are ready for use and preparing the exit, as well as for set up and operation of the adjacent decontamination zone for the contractor's staff (i.e., technicians) as they exit the Exclusion Zone.

15. PPE donning, as well as PPE removal upon exiting, by Contractor technicians, County staff, or others who will enter the Exclusion Zone, shall be in compliance with the Centers for Disease Control and Prevention (CDC) protocols and Cal/OSHA regulations.

16. Technicians shall enter Exclusion Zone(s) and complete the decontamination process as outlined in Attachment A, Operating Procedures For Hazardous Agents. Any items removed from Exclusion Zone(s) shall be placed in drums positioned in zone directly adjacent to Exclusion Zone(s). This protected storage requirement is not limited to waste materials, but also applies to all potentially contaminated supplies and equipment until appropriate decontamination measures can be taken.

17. Contractor staff shall label (date/time) cleaned/disinfected items.

18. Contractor Technicians shall exit Exclusion Zone and begin de-suiting/doffing once cleaning and decontamination of Exclusion Zone is completed.

19. If decontamination is not completed and a break in activity is required, Contractor technicians and other individuals assisting shall doff PPE and have a one-hour resting period outside of Exclusion Zone.

20. Any drums containing material extracted from contaminated or potentially contaminated area(s) shall be transferred to a designated interim storage/processing location for transportation by a designated vendor approved by the U.S. Department of Transportation. In lieu of an interim storage/processing location, the designated transportation vendor may take immediate care and control of these materials, as directed.

21. All equipment, supplies, materials, etc. used during the cleaning process shall either be cleaned and decontaminated or treated and packed in compliance with U.S. Department of Transportation guidelines and ready for transport by the designated DOT approved vendor.

22. Contractor's lead representative shall be the last of contractor's staff to exit and shall use the same waterproof digital camera as was used earlier to quickly document the condition of the entire scene which was subject to contracted cleaning/decontamination activities immediately following the completion of these activities, with special attention to areas/items having existing damage or high value.

23. Exit scene and notify the following:
    a. DPH representative, if one is on-site; otherwise notify the appropriate off-site DPH representative.
    b. Incident management staff responsible for resource tracking, if present.
    c. Property representative, such as tenant, landlord, owner, etc.

III. RESPONSIBLITIES

It is solely the Contractor's responsibility to:

(a) maintain current knowledge of applicable regulations and proficiency in procedures related to decontamination/cleanup/disposal activities at a potential Category A contamination site, as established by CDC, OSHA, California DPH, DOT, and the Los Angeles County Health Officer.

(b) ensure its staff have had the pre-requisite training and proper health clearance to perform the required activities for the scope and will have strict liability for the health and mental care needs of its staff, which may arise in the course and scope of performing activities, which Contractor employed them to perform.

(c) ensure confidentiality of the location(s), individual(s), and all other information related to the incident(s) they may respond to is maintained, as required in this agreement.

Contractor shall dispatch services only at the request of staff pre-designated by DPH as the primary contacts for this agreement.

DPH may provide additional guidance to vendors performing these duties as appropriate.

IV. REFERENCES

1. Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard, 29CFR1910.1030.

   https://www.osha.gov/SLTC/bloodbornepathogens/index.html

2. CDC's Ebola webpage: http://www.cdc.gov/vhf/ebola/index.html

3. CDC's Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Hemorrhagic Fever in U.S. Hospitals, updated November 2, 2014

   http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html

   - Guidance document on the use of PPE and environmental infection control measures in a health care setting for patients with known or suspected Ebola Hemorrhagic Fever.

4. CDC's Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus, Reviewed November 5, 2014

   http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html

   - Addresses in more detail recommended minimum PPE
   - Recommends the use of USEPA-registered hospital disinfectant with a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, and poliovirus) to disinfect environmental surfaces in rooms of patients with suspected or confirmed Ebola virus infection.

5. CDC/HICPAC's Guidelines for Environmental Infection Control in Health-Care Facilities.

   https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051

   - Applies to all occupational exposure to blood or other potentially infectious material

6. OSHA's Fact Sheet, Cleaning and Decontamination of Ebola on Surfaces

   https://www.osha.gov/OshDoc/data_Hurricane_Facts/general_decontamination_fact.html

   - Provides guidelines for cleaning and disinfection, appropriate use of PPE, Disinfectants for Ebola virus, guidelines for waste disposal

7. CDPH's Cleaning, Disinfection, and Sterilization (PDF format)

   http://www.cdph.ca.gov/programs/hai/Documents/Slide-Set-13-Cleaning-Disinfection-Sterilization.pdf

   - A CDPH PowerPoint presentation on cleaning, disinfection and sterilization in

clinical and environmental settings

8. DOT's PHMSA Provides Guidance for Transporting Ebola Contaminated Items
9. DOT Guidance for Transporting Ebola Contaminated Items, a Category A Infectious Substance

Note: If the above link does not open the web page, then copy the following URL and paste it into your web browser:

http://phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid=4d1800e36b978410VgnVCM100000d2c97898RCRD&vgnextchannel=d248724dd7d6c010VgnVCM10000080e8a8c0RCRD&vgnextfmt=print
http://phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid=4d1800e36b978410VgnVCM100000d2c97898RCRD&vgnextchannel=d248724dd7d6c010VgnVCM10000080e8a8c0RCRD&vgnextfmt=print

OPERATING PROCEDURES

FOR

DECONTAMINATION OF HAZARDOUS AGENTS

PPE Requirements

Entrants shall utilize full impermeable coveralls with hoods, such as QC Tyvek, shoe covers and booties with an internal regular Tyvek, Safety Glasses, Nitrile Gloves and Powered Air Purifying respirator with HEPA cartridges during decontamination procedures. All potential areas of exposure must be taped off. All PPE shall be changed if technicians have to leave the containment area.

1. Initial Decontamination (Airborne Contaminants) -

In order to protect Biohazard workers from Cross Contamination a pre-decontamination by IHP (Ionized Hydrogen Peroxide), HPV (Hydrogen Peroxide Vapor), or ClO_2 (Chlorine Dioxide) may be done. Please follow manufactures protocol for this procedure. It will require air tight containment procedures and exterior monitoring during the cycle. A surface sterilant, such as Steriplex SD, can be used to spray surfaces and water sensitive equipment via atomization with a device such as a Biospray unit.

2. Negative Air and Containment –

Prior to any invasive work, the contaminated space shall be put under negative pressure with the exhaust of the HEPA Air Filtration Device discharged outdoors. Clear fire retardant poly shall be used to contain the area. A continuous pressure drop of at least .01 inches of H2O at all times shall be maintained. This will be measured by a digital monometer. **(ICRA) Infection Control Risk Assessment Protocol Guidelines**

3. HEPA Vacuum –

Prior to any cleaning, the entire room shall be detail HEPA vacuumed removing any dust that may harbor microorganisms. Portable HEPA Air filtration devices shall be staged and running in the room during all cleaning activities and removed upon meeting the decontamination requirements in sections 5 and 6.

4. Soft Contents –

It is recommended that soft contents that are hard to clean and decontaminate be removed and discarded. Items like furniture, bedding, clothing or carpeting shall be removed bagged or wrapped for incineration. Although infectious spores tend to not replicate in the environment, they can be harbored by Biofilms and can remain infectious for long periods of time in the environment.

5. Cleaning –

In order to remove any visible bio-burden, technicians should first moisten the microfiber towel with a Steriplex SD or disinfectant/surfactant and then wipe down contact surfaces and allow to dry. Towels shall be quartered and flipped approximately every 2 sf and discarded. Follow with clean microfiber rags

moistened with reverse osmosis water to remove any visible residual. Floors shall be cleaned with the same product with clean microfiber mop head and changed every 25-40 S.F., depending on how dirty the floor is.

6. Surface Quality Assessment –

After the cleaning, surfaces shall be monitored by the use of an ATP Lumenometer. This device can determine if the cleaning process was effective by swabbing the surface. Within 15 seconds, a reading of light refraction off of the swab called RLU (Relative Light Units) will be given. This number helps determine the level of cleanliness of surfaces. It is important to allow at least 20-30 minutes before testing, as hazardous agents initially release ATP upon contact with the disinfectant.

The following are recommended levels for surface hygiene.
Samples – will be roughly 10sq cm and 1 random sample for every 100sf of space and random hard to clean areas.

Hygiena ATP levels.

Ultra –Clean 0-10 RLU– Sterile surfaces and food prep areas

Very Clean 11-30 RLU - Critical Touch Points

Good Clean – 31-80 Check Microfiber towel changes and performance

7. HEPA Vacuum 2 –

Even after cleaning and disinfection, dead bacteria and spores can still have structure to them and are often contributors to dusts and allergens. A final HEPA vacuuming is recommended.

8. Corrective Action –

Corrective Action Level will be set at 10 RLU.
If any results are above the corrective action level, those locations shall be cleaned again following steps 5 and 6. Re-sample until the Ultra-Clean criteria is met.

9. Final Decontamination –

Final Decontamination is done to be sure the correct Log reduction of 6-Log is achieved. Use the same Technology employed in step 1.

Post-Decontamination –

All equipment used in the process must be cleaned and decontaminated prior to its use in other rooms – Follow steps 5 and 6 to avoid cross contamination by dragging equipment into a new area or prior to storage. External PPE shall be decontaminated by the use of a BioSpray Machine and sporicide, such as Steriplex SD, in a containment chamber. Remain in the chamber until the wet kill time for the product is achieved, then have attendant help remove the outer layer and suit and PAPR Cartridges. This will be discarded in box 1 as Biohazard Waste. Then remove the PAPR and clean it with Steriplex SD, wipe dry and store it in a clean bag. Finally, take off the inner PPE starting with the suit and then gloves, and put into box 2 Biohazard waste.

REFERENCES –

APIC (Association for Professionals in Infection Control)
CDC (Guidelines for Environmental Infection Control in Health Care Facilities)
AIA (The American Institute of Architects') Academy of Architecture for Health
ABSA (American Biological Safety Association)