American Bio Recovery Association

ABRA

AMERICAN BIO RECOVERY ASSOCIATION

AN INTERNATIONAL ASSOCIATION

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> Leaders in Biological Hazard Remediation

americanbiorecovery.org

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BIOLOGICAL EMERGENCY RESPONSE & THE BUILT ENVIRONMENT

Bio Recovery - Bio Recovery is the act of assessing risk, mitigating threats and remediating conditions resulting from the release of biological hazards. This may include crime and trauma mitigation (bloodborne and body fluids), suicide cleanup, outbreak response, zoonotic diseases, foodborne diseases, public health threats, illicit drugs and clandestine drug labs.

Introduction and Objectives

Create a uniform standard of care through proper education and certifcation of contractors who respond to emergencies in the built environment.

Many people believe that hazardous materials cleanup contractors are also trained to handle biological response actions and that their OSHA Hazardous Waste Operations and Emergency Response with Blood Borne Pathogens is enough. ABRA believes that continuing education is required to increase safety and maintain crediblity.

The primiary objectives of the organization is to educate the contractor on the proper procedures to evaluate risks and present methods to mitigation conditions that they may be called on during a response action.

The American Bio Recovery Association has been the leading Non-Profit resource for niche biological decontamination since 1996.

Mission

ABRA's mission is "to achieve and maintain the highest levels of competence among members in the performance of their profession. To teach, instill and require the highest technical, ethical and educational standards."

ABRA certified firms are required to show proof of maintaining proper insurance, OSHA compliance, blood borne pathogen training records, respirator fit testing, proper handling of biohazardous waste and other laws or requirements in order to maintain good standing in the American Bio Recovery Association aka ABRA.

Bio Recovery Site Risk Assessment

Purpose – The purpose of the development of the BSRA document is to provide a uniform guidance so that contractors can assess front end risk to employees in the built environment

Objective – The objective of this process is to provide a risk evaluation for the contractor. Is this project within your capabilities?

Or do you have to bring in a expert in that process, or do you bring in a specialized subcontractor.

AMERICAN BIO RECOVERY ASSOCIATION

BIO RECOVERY SITE RISK ASSESSMENT (BSRA) GUIDELINES Version 1.3

Field Operations ABRA TAC Review 5/1/2019

BIO RECOVERY RISK ASSESSMENT

Project Name: _____

Project Address: _____

Project City _____ State: _____ Zip _____

Project Manager: _____

Front End Management – Taking the Call

I. **Type of Loss**: Drug Trauma Zoonotic Infectious Disease Food Borne Mold Terrorism

Other _____

II. **Type of Facility**: Residential Institutional Municipal Health Commercial Industrial

III. **Are there casualties or illness?** Yes No If yes, How many _____ Overdose? Yes No

IV. **ID Only-Has the person(s) or close personal contacts traveled outside of the country within the past three weeks?**

Yes No (if yes, please consult with the local health department, state or health local officials)

V. **Have the police or health department cleared the scene for mitigation / cleanup?** Yes No

(If no, look up the locations police department and health department and ask for the info)

VI. **If yes – Contact** _____ **Phone number** _____

VII. **Is there a diagnosis?** _____ **Cause of Death** _____

Condition or syndrome name _____

If applicable - examples – (sepsis, meningitis, heart disease, mad cow, stroke, diabetes, dehydration, necrotizing fasciitis)

SUSPECT PATHOGEN/CONTAMINANT – _____ **Bio Safety/Agent Risk Group** _____

If applicable – examples – (Drug Name, MRSA, Staph, Strep, Clostridium, Bacillus, HIV, Hepatitis, TB, Ebola)

To Research the Pathogen for its Biosafety Risk Group, please search the: ABSA Risk Group Database!

Riot Control Agent (CS), Drug Risk Group – Methamphetamine Risk Group 3

Riot Control Agent (CN), Bioterrorism Agents, Fentanyl / Carfentanil Risk Group 4

VIII. **Has the Property Insurance Carrier been notified** Yes No

Name of Insurance Company _____

Phone Number _____ Determination of Coverage Y N Amount _____

Deductible _____ Claim number _____

Adjuster Phone Number _____ Adjuster Name _____

E-Mail _____ Limit or Cap _____

Step 1: Determine Type of Risks Present (Determination of Risk Group

Risk	Description	Example Activities
Group 1	Agents are not associated with disease in healthy adult humans.	Category 3 water damage out side of a health care facility. Mitigation of an agent that does not present an environmental health risk.
Group 2	Biological agent risk that can cause human disease and might be a hazard to workers; it is unlikely to spread to the community; there is usually effective prophylaxis or treatment available;	Blood and Trauma Mitigation Category 3 water damage inside or downgradient from a health care facility. Zoonotic Waste Mitigation and Remediation Diarrhea and loose stool cleanup Mold Remediation
Group 3	Biological / Drug agent risk that usually causes serious human or animal disease, or which can result in serious economic consequences but does not ordinarily spread by casual contact from one individual to another, or that can be treated by antimicrobial or antiparasitic agents.	Blood and Trauma Mitigation Zoonotic Waste Mitigation and Remediation Diarrhea and loose stool cleanup Spore forming bacteria and viruses Clandestine Labs and Hazardous drugs CS Riot Control Agent
Group 4	Biological / Drug agent risk that causes severe human disease and is a serious hazard to workers; it may present a high risk of spreading to the community; there is usually no effective prophylaxis or treatment available.	Blood and Trauma Mitigation Zoonotic Waste Mitigation and Remediation Diarrhea and loose stool cleanup Bio Terrorism Agents / Toxins and viruses / CN Riot Control Agent IDLH Clandestine Labs and Hazardous drugs Exotic Diseases (Example - Hemorrhagic Fevers – Ebola, Hanta)

Step 2: Identify the Area Risk Group

Identify the locations of all groups/spaces that are potentially impacted from the project. This should include all areas surrounding the project. If there is more than one risk group that will be affected, use the higher risk group.

Low Impact Risk Area: No occupancy. No body fluids present. No Demolition Required

Medium Impact Risk Area: Space is occupied. Body fluids present. No Demolition Required hard surface contamination.

High Impact Risk Area: Source Material Demolition/Contaminated Porous Materials or invasive activities required to mitigate.

Other Risks to consider that may need to be addressed prior to active work:

		YES	NO
1.	**Are there violent/feral animals present?**	YES	NO
2.	**Is there Poisonous / Venomous Wildlife?**	YES	NO
3.	**Are there Poisonous plants present?**	YES	NO
4.	**Is there a risk to neighbors and are they contentious / violent?**	YES	NO
5.	**Is and access agreement required from neighboring property owners?**	YES	NO
6.	**Are there any hoarding conditions present?**	YES	NO
7.	**Have the Contaminated structural materials been screened for Asbestos***	YES	NO
8.	**Have the Contaminated structural materials been screened for Lead***	YES	NO

* If yes to either questions 7 or 8 and you are positive for either contaminant please research your federal, state or local solid waste for licensing disposal options and laws. Biological Contaminants normally take priority however clearance sampling may be required prior to reconstruction. If no, please consider hiring a qualified third-party consultant to determine if biologically contaminated materials are positive for lead or asbestos.

Step 3: Determine Class (I – IV) of Risk Mitigation Measures Required

Identify Project Type and Risk Mitigation Class

Project Risk Group	Group 1	Group 2	Group 3	Group 4
Low Risk	I	I	II	IV
Medium Risk	I	II	III	IV
High Risk	II	III/IV	III/IV	IV

All projects that require Class II, III or IV risk mitigation measures will require approval of a contaminant control plan prior to the start of work.

Step 4: Risk Mitigation Guidelines

Class	During Project	Suggested PPE
I	1. Charge single use microfiber cloths with a mild detergent or cleaner. 2. Wipe down surfaces and touch points with single use Microfiber clothes folded in 4 sides. Wipe down 2-3 ft of each side of hard surfaces. 3. Follow up by spraying surfaces and touch points with a disinfectant that has a EPA Registered virucidal claim. 4. Discard cloths when visibly soiled or you have touched 12sf. 5. Remove gloves and wash your hands prior to eating or leaving the site.	Safety Glasses N-95 Mask Nitrile Gloves
II	1. Set up exclusion zone and start donning PPE. 2. Contain any gross contamination / pooled-up body fluids and apply a solidifier if necessary. 3. Charge single use microfiber cloths with a mild cleaner and disinfectant. 4. Clean up gross contamination and follow steps in Class 1 above for cleaning protocol. 5. Discard cloths when visibly soiled or you have touched 12sf. 6. Examine if any staining has occurred that can not be removed by chemical or manual labor. (If materials are stained or soaked see Class III.) 7. Follow and clean path of extraction and inspect all surfaces leaving the scene utilizing an ATP luminometer. 8. Follow up with an application of a disinfectant that has an EPA registered virucidal claim. 9. Decontaminate equipment, workers and personnel and doff PPE. 10. Box and manifest all soaked contaminated rags and PPE as medical waste.	APR with HEPA OV Filters Coverall – ANSI Standard for blood borne pathogens. Inner Nitrile Gloves Outer Nitrile Gloves Chemical Resistant Booties
III	1. Isolate HVAC system in area in consultation with Engineering & Maintenance where work is being done to prevent contamination of duct system or adjacent spaces. (Gross Contamination in HVAC – schedule for removal) 2. Set up Exclusion zone and place sticky mat at entrance and exit of work area and replace or clean start donning PPE. 3. Containment Installation - critical barriers i.e. plastic (6 mil poly) or portable containment units, to seal area from non-work area. 4. Maintain negative air pressure (>0.01" water) within work site utilizing HEPA A equipped air filtration units or other methods to maintain negative pressure. 5. Re-circulating HEPA units may supplement dust control measures inside the work area. 6. Use only designated route/elevator to transport. 7. Set up designated personnel decontamination area. 8. Charge single use microfiber cloths with a mild detergent or cleaner that deactivates drug residue or registered microbial as applicable. 9. Contain any pooled-up body fluids and apply a solidifier for gross contaminant removal.	APR with HEPA OV Filters or PAPR with HEPA OV Filters. (Double Shrouded) Coverall – ANSI Standard for blood borne pathogens. Inner Nitrile Gloves Outer Nitrile Gloves Chemical Resistant Booties Containment Should be checked prior to shift starting and after the shift is over. Pressure differential monometer should be used to constantly monitor with alarm to notify unprotected personnel of containment failure.
	10. Wipe down surfaces and touch points with single use Microfiber clothes folded in 4 sides. Wipe down 2-3 ft of each side of hard surfaces. Starting at the back of the room to the front of the room. 11. Discard cloths when visibly soiled or you have touched 12sf. 12. Cut out all body fluid-soaked materials or OPIM in pieces small enough to fit into a Biohazard Waste Box and stage for transportation. 13. Follow and clean path of extraction and inspect all surfaces leaving the scene utilizing an ATP luminometer. 14. Follow up with an application of a disinfectant that has a TB or 6-Log sporicidal claim if necessary or proper application chemical for drug or Riot Control Agent deactivation. (Follow the instructions according to EPA registration. 15. Decontaminate all equipment used on site. (Validate your Procedures-Lab Analysis) 16. Box and manifest all soaked contaminated rags and PPE as medical waste.	
IV	1. Isolate HVAC system in area in consultation with Engineering & Maintenance where work is being done to prevent contamination of duct system or adjacent spaces. (Gross Contamination in HVAC – schedule for removal) 2. Set up Exclusion Zone and place sticky mat at entrance and exit of work area install three stage personnel decontamination unit with disinfection - start donning PPE. 3. Containment Installation - critical barriers i.e. plastic (6 mil poly) or portable containment units, to seal area from non-work area. 4. Install Biological / Chemical Indicators for sterilization assurance 1 per 100 sf of dwelling space to address biological decontamination. 5. Maintain negative air pressure (>0.01" water) within work site utilizing HEPA equipped air filtration units or other methods to maintain negative pressure to prevent air-borne cross-contamination. Note: Static conditions will be required for 6-log sterilization cycles see section 11. 6. Re-circulating HEPA units may supplement dust control measures inside the work area if demolition is required. 7. Use only designated route/elevator to transport. 8. Contain any body fluids and apply a solidifier for removal. Follow Cleaning protocol in Class 1 Above. 9. Cut out all body fluid-soaked materials or OPIM in pieces small enough to fit into a Biohazard Bag/Waste Box and stage for transportation 10. Follow and clean path of extraction and inspect all surfaces leaving the scene. 11. Decontaminate all equipment prior to leaving the exclusion zone. Leave equipment within the exclusion zone for sterilant application step 12. **Considerations for IDLH drugs/Virus/Bacteria**: Any HEPA or ULPA vacuum Equipment must be contained and sent off as overclassified medical waste. Do not try to decontaminate or save the equipment. 12. Follow up with an application of a 6-Log EPA registered sporicide for room space sterilization or proper application of chemical for IDLH Toxin, drug or Riot Control Agent deactivation. (Follow the instructions according to the EPA registration) 13. Exit the exclusion zone via the three-stage decontamination chamber. A decontamination attendant will walk you through each stage. 14. Box and manifest all soaked contaminated rags and PPE as medical waste. 15. Upon confirmation of sterilization via Biological Indicator analysis, re-enter the space to remove all remaining equipment.	Infectious Disease Hooded PAPR with HEPA or HEPA OV AG Filters (Double Shrouded) SCBA/Level A (Site Assessment) Inner - Coverall – ANSI BBP rated Outer Coverall – Tychem TK for liquid splashes. Inner Nitrile Gloves Outer Nitrile Gloves 12 mil Chemical Resistant Booties Containment Should be checked prior to shift starting and after the shift is over. Pressure differential monometer should be used to constantly monitor with alarm to notify unprotected personnel of containment failure. Note: For dealing with IDLH Drug contamination such as Synthetic Opioids (Fentanyl and Carfentanil) Response Crew Should have Naloxone on site and be trained to administer it in the event an exposure occurs. **For Category A Infectious Waste please refer to the PHSMA packaging requirements.**