



DISTRICT OF COLUMBIA
DFS
DEPARTMENT OF
FORENSIC SCIENCES

DC PUBLIC HEALTH LABORATORY

Safety Risk Assessment

	Printed Name	Signature	Date
Unit Manager			
Biosafety Officer			
Laboratory Director			

Laboratory Unit/Section	
Date of Assessment	
Name of Assessor	
Name of Organism/Agent/Methodology	

Introduction

**Use tables A through C below to assess the risk level associated with each hazard identified in the Pre Analytical, Analytical, and Post Analytical stages Use Table A to rate the likelihood of hazard occurring and use Table B to rate the consequence if the hazard were to occur.

Table A. Likelihood of hazard occurrence.

Hazard Likelihood	Description of Likelihood
1. Rare	Will only occur in exceptional circumstances
2. Unlikely	Not likely to occur within the foreseeable future
3. Possible	May occur within the foreseeable future, sporadic exposure is possible
4. Likely	Likely to occur within the foreseeable future, routine exposure is likely
5. Highly Likely	Almost certain to occur within the foreseeable future, consistent exposure is highly likely

Table B. Consequence of hazard occurrence.

Hazard Consequence	Description of Consequence
1. Insignificant	No treatment required
2. Minor	Minor injury requiring First Aid treatment (e.g. minor cuts, bruises, bumps)
3. Moderate	Injury requiring medical treatment or lost time
4. Major	Serious injury (injuries) requiring specialist medical treatment or hospitalization
5. Critical	Loss of life, permanent disability or multiple serious injuries

Table C. Based on the likelihood and consequence determined above, identify the initial risk level of each hazard using the Risk Assessment Matrix below. For example; if your hazard likelihood is likely and the hazard consequence is moderate then the initial risk level is high per the risk assessment matrix.

Risk Assessment Matrix		Hazard Consequence				
		Insignificant	Minor	Moderate	Major	Critical
Hazard Likelihood	Highly likely	Medium	Medium	High	Extreme	Extreme
	Likely	Low	Medium	High	High	Extreme
	Possible	Low	Medium	High	High	High
	Unlikely	Low	Low	Medium	Medium	High
	Rare	Low	Low	Low	Medium	Medium

**Residual Risk Rating is determined after mitigating the initial risk with control/protection procedures. It requires analyzation of the initial risk rating and mitigating factors to determine if the residual risk rating is lower, higher, or the same.

Pre-Analytical: Specimen Transport

Procedure	Potential Hazard	Hazard Likelihood	Hazard Consequence	Initial Risk Rating	Control/Protection (Mitigation)	Residual Risk Rating	Who Performed?

Comments:

Analytical: Testing

Procedure	Potential Hazard	Hazard Likelihood	Hazard Consequence	Initial Risk Level	Control/Protection (Mitigation)	Residual Risk Level	Who performed?

Comments:

Biological Safety	
Item	Response
1. Indicate the biosafety level (BSL) established in this unit. (BSL-1, BSL-2, BSL-3, N/A)	
2. Is there potential for aerosol generation?	
3. Equipment such as centrifuges, incubators, freezers involved in the use and storage of infectious materials have the biosafety label affixed?	
4. Buckets with safety caps/cups or aerosol tight rotor lids used when centrifuging infectious materials?	
5. Is health monitoring performed in this Unit?	
6. Are vaccines recommended for work in this Unit?	
7. Are sharps used?	
8. Does work include a Biological Safety Cabinet?	
Comments:	

Chemical Safety

Item	Yes	Location (if applicable)	No
1. Proper labeling: All containers labeled with the name of chemical?			
2. Fire Department Permit posted?			
3. Updated chemical inventory?			
4. Materials safety data sheets accessible to staff?			
5. Incompatible chemicals segregated?			
6. Flammable liquids stored: rated chemical cabinets?			
7. Flammable liquids stored: stored in flammable-rated refrigerators/freezers?			
8. Excessive chemicals stored in chemical storage room?			
9. Compressed gas cylinders stored in laboratory?			
10. Chemicals stored at eye-level?			
11. Acids and bases stored?			
a. Cabinet?			
b. Labeled area?			
c. Free from metals?			
12. Chemical fume hoods:			
a. Certified within past year?			
b. Sash closed when not in use?			
c. Exhaust air not blocked by large equipment or containers?			
d. Used for hazardous/toxic or flammable procedures?			
13. Chemical Spill kit maintained? <i>If yes, Date and time is was last maintained.</i>			
<i>Location of Biological Spill Kit.</i>			
Comments:			

Personal Protective Equipment

Item	Yes	Location (if applicable)	No
1. Laboratory staff aware of personal protective equipment (PPE) requirements for this laboratory.			
2. Do staff receive annual PPE competency assessment? <i>If yes, please provide date and time in adjacent box.</i>			
3. PPE Care:			
a. Appropriately stored in laboratory? <i>Please provide location in adjacent box.</i>			
b. Inspected prior to use and in good condition? <i>If yes, please provide date and time in adjacent box.</i>			
c. Is PPE worn outside laboratory area?			
4. PPE Selected:			
a. Facial shields/splash guards?			
b. Disposable laboratory coats?			
c. Nitrile gloves?			
d. Respiratory protection?			
i. Users are enrolled in a respiratory protection program? <i>If yes, please provide date and time in adjacent box.</i>			
e. Cryo or autoclave gloves?			
f. Over sleeves/booties/bonnet?			
5. Closed-toe shoes that cover entire foot worn in laboratory?			
Comments:			

Waste Management

Item	Yes	Location (if applicable)	No
1. Chemical waste containers:			
a. Labeled with chemical name and percent of each chemical?	✓		
b. Properly sealed?	✓		
c. In good condition for transport?	✓		
2. Biohazard waste:	✓		
3. Broken glass placed in appropriate receptacle?	✓		
Comments:			

Documentation and Training

Item	Yes	Date, Time, Location (if applicable)	No
1. Employee(s) completed right-to-know training? <i>If yes, please provide date and time of this training.</i>			
2. Employee(s) completed unit-specific training? <i>If yes, please provide date and time of this training.</i>			
3. Employee(s) read and understand safety and health plans? <i>If yes, please provide date and time of this training.</i>			
4. Door sign up-to-date and posted?			
5. Laboratory microwaves and refrigerators labeled with "Not for Food or Drink – Biohazard"?			
Comments:			

Emergency Preparedness

Item	Yes	Date, Time, Location (if applicable)	No
1. Emergency contact information posted? <i>If yes, location of posted information.</i>			
2. First aid kit maintained? <i>If yes, Date and time is was last maintained. Location of First Aid Kit</i>			
3. Biological spill kit maintained? <i>If yes, Date and time is was last maintained. Location of Biological Spill Kit</i>			
4. Staff aware of occupational injury procedures?			
Comments:			

Engineering Controls		
Item	Yes	No
1. Laminar Flow Hoods		
2. Transport Containers		
3. Sharps Container		
Comments:		

Employee Safety			
Item	Yes	Date, Time, Location (if applicable)	No
1. Safety Shower? <i>If yes, please provide location.</i>			
2. Eye Wash Station? <i>If yes, please provide location.</i>			
3. AED? <i>If yes, please provide location.</i>			
Comments:			

At Risk Employees		
Name	Signature	Date