



Vision: To be the Healthiest State in the Nation

Biosafety Risk Assessment: Risk Likelihood and Consequences Evaluation Worksheet

This worksheet is intended to be used in conjunction with the “Conducting a Biosafety Risk Assessment” Standard Operating Procedure. This is meant to aid in the “Implementation of New Controls” step, in particular when evaluating the severity of a risk when not all recommended controls can be implemented in a laboratory and the risks must be prioritized.

Activity/Practice/Procedure Being Assessed:

Hazard Being Assessed:

Definitions

Rating of Likelihood	
Rating	Likelihood
Frequent	More than once a year
Moderate	Once per year
Occasional	Once in 5 years
Rare	Once in 25 years (e.g. once in the life cycle of the system)
Unlikely	Once in 100 years
Very Unlikely	Once in 1,000 years

Rating of Consequences			
Rating	Consequences		
Catastrophic	People:	fatalities, evacuation outside site area	
	Environment:	irreversible, long-term damage outside site area	
	Business:	Total loss:	> \$2 million
		Interruption:	> 2 months
Image:		severely damaged, > 1 week, national	
Critical	People:	serious injuries, effects outside site area	
	Environment:	reversible, short-term damage outside site area	
	Business:	Total loss:	\$100,000 - \$2 million
		Interruption:	2 - 8 weeks
Image:		damaged, > 1 week, regional	
Marginal	People:	minor injuries, annoyance outside site area	
	Environment:	only site area effected	
	Business:	Total loss:	\$5,000 - \$100,000
		Interruption:	1 – 2 weeks
Image:		< 1 week, local	
Negligible	People:	no effects	
	Environment:	only building effected	
	Business:	Total loss:	< \$5,000
		Interruption:	< 1 week
Image:		no noticeable effects	

Procedure



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- Using the definitions above for the likelihood and consequences of this hazard, check the appropriate box below to indicate your estimation of the risk posed by this hazard.

Risk Evaluation					
		Consequences			
		Negligible	Marginal	Critical	Catastrophic
Likelihood	Frequent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Occasional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Rare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Unlikely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Very Unlikely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- An evaluation closer to the top right of this worksheet's chart is associated with a severe risk.

Sources

This worksheet is based almost entirely upon the following source. This worksheet's creators are tremendously thankful to the Office of Research Assurances' Institutional Biosafety Committee (IBC) at Washington State University and its members who created this source.

- Washington State University Biosafety Risk Assessment Guidelines v.11.13.13
 - <http://www.bio-safety.wsu.edu/forms.asp>

These resources are the product of research from respected biosafety sources that were combined to help create a biorisk program. Please follow your own professional judgement, your institution's established guidelines, and any applicable local, state, and federal requirements.