

## Example Risk Assessment Template: Influenza Viruses <sup>1</sup>

<sup>(1)</sup> This template is intended as an example of how a risk assessment may possibly be conducted. It does not represent containment recommendations made by any actual IBC or the NIH RAC.)

Influenza virus strain 1	Biosafety levels for recombinant viruses containing genes from influenza virus strain 1 and strain 2				
	Influenza virus strain 2				
	(a) Classical laboratory strains (e.g., PR8)	(b) Contemporary human strains	(c) Highly pathogenic avian	(d) Low pathogenic avian	(e) 1918 strains
<b>(a) Classical laboratory strains (e.g., PR8)</b>	BSL2	BSL2	May be constructed at BSL3*; those that contain category (a) surface genes and are demonstrated under BSL3* conditions that they are not highly pathogenic in standard animal models may be lowered to BSL2.	Constructed at BSL3*, may lower to BSL2 if recombinants are not highly pathogenic in standard animal models.	Not currently permitted at this facility.
<b>(b) Contemporary human strains</b>	BSL2	BSL2	Not currently permitted at this facility.	May be constructed and maintained at BSL3*; those that contain category (b) surface genes and are demonstrated under BSL3* conditions that they are not highly pathogenic in standard animal models may be lowered to BSL2	Not currently permitted at this facility.
<b>(c) Highly pathogenic avian</b>	May be constructed at BSL3*; those that contain category (a) surface genes and are demonstrated under BSL3* conditions that they are not highly pathogenic in standard animal models may be lowered to BSL2.	Not currently permitted at this facility.	May be constructed and maintained at BSL3*.	May be constructed at BSL3*; those that contain category (d) surface genes and are demonstrated under BSL3* conditions that they are not highly pathogenic in standard animal models may be lowered to BSL2.	Not currently permitted at this facility.

<b>(d) Low pathogenic avian</b>	Constructed at BSL3*, may lower to BSL2 if recombinants are not highly pathogenic in standard animal models.	May be constructed and maintained at BSL3*; those that contain (b) surface genes and are demonstrated under BSL3* conditions that they are not highly pathogenic in standard animal models may be lowered to BSL2	May be constructed at BSL3*; those that contain category (d) surface genes and are demonstrated under BSL3* conditions that they are not highly pathogenic in standard animal models may be lowered to BSL2.	BSL2	Not currently permitted at this facility.
<b>(e) 1918 strains</b>	Not currently permitted at this facility.	Not currently permitted at this facility.	Not currently permitted at this facility.	Not currently permitted at this facility.	Not currently permitted at this facility.

Note: The number of viruses in any box could be as high as 254 possible combinations of genes from strain 1 or 2.

BSL3\* is BSL3 containment plus additional enhancements (e.g., respiratory protection, HEPA filtration, shower out, etc.) that will vary depending on parent strains and regulatory requirements.

Hypothetical Example