

Containment measures for activities involving GMMs in the laboratory  
(NB this table includes changes made by GMO (CU) (Amendment ) Regulations 2005)

Containment measures	Containment Levels			
	1	2	3	4
Laboratory suite isolation <sup>1</sup>	Not required	Not required	Required	Required
Laboratory: sealable for fumigation	Not required	Not required	Required	Required
<b>Equipment</b>				
Surfaces impervious to acids, alkalis, solvents, disinfectants and decontamination agents and easy to clean	Required for bench	Required for bench	Required for bench and floor	Required for bench , floor, ceiling and walls
Entry to laboratory via airlock <sup>2</sup>	Not required	Not required	Required where and to the extent that the risk assessment shows it is required	Required
Negative pressure relative to the pressure of the immediate surroundings	Not required	Required where and to the extent that the risk assessment shows it is required	Required	Required
Extract and input air to the laboratory shall be HEPA filtered	Not required	Not required	HEPA filters required for extract air	HEPA filters required for input and extract air <sup>3</sup>
Microbiological safety cabinet/enclosure	Not required	Required where and to the extent that the risk assessment shows it is required	Required and all procedures with infective materials to be contained within cabinet/enclosure	Class III cabinet required
Autoclave	Required on site	Required in the building	Required in the laboratory suite <sup>4</sup>	Double ended autoclave required in the laboratory
<b>System of work</b>				
Access restricted to authorised personnel only	Not required	Required	Required	Required (via airlock key procedure)
Specific measures to control aerosol dissemination	Not required	Required so as to minimise	Required so as to prevent	Required so as to prevent

<sup>1</sup> In relation to a laboratory, isolation means separation of the laboratory from other areas in the same building, or being in a separate building.

<sup>2</sup> Entry must be through an airlock which is a chamber isolated from the laboratory. The clean side of the airlock must be separated from the restricted side by changing or showering facilities and preferably by interlocking doors.

<sup>3</sup> Where viruses are not retained by the HEPA filters, extra requirements will be necessary for extract air

<sup>4</sup> Where the autoclave is outside of the laboratory in which the activity involving genetic modification is being undertaken, but within the laboratory suite, there shall be validated procedures for the safe transfer of material into that autoclave, which shall provide a level of protection equivalent to that which would be achieved by having an autoclave in that laboratory

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Shower	Not required	Not required	Required where and to the extent that the risk assessment shows it is required	Required
Protective clothing	Suitable protective clothing required	Suitable protective clothing required	Suitable protective clothing required; footwear required where and to the extent the risk assessment shows it is required	Complete change of clothing and footwear before entry and exit
Gloves	Not required	Required where and to the extent the risk assessment shows they are required	Required	Required
Efficient control of vectors (eg rodents and insects) which could disseminate GMMs	Required where and to the extent the risk assessment shows it is required	Required	Required	Required
Specified disinfection procedures in place	Required where and to the extent the risk assessment shows they are required	Required	Required	Required
<b>Waste</b>				
Inactivation of GMMs in effluent from handwashing sinks and showers and similar effluents	Not required	Not required	Required where and to the extent the risk assessment shows it is required	Required
Inactivation of GMMs in contaminated material and waste	Required by validated means	Required by validated means	Required by validated means, with waste inactivated in the laboratory suite	Required by validated means, with waste inactivated within the laboratory

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<b>Other measures</b>				
Laboratory to contain its own equipment	Not required	Not required	Required, so far as is reasonably practicable	Required
An observation window or alternative to be present so that occupants can be seen	Required where and to the extent the risk assessment shows it is required	Required where and to the extent the risk assessment shows it is required	Required	Required
Safe storage of GMMs	Required where and to the extent the risk assessment shows it is required	Required	Required	Required
Written records of staff training	Not required	Required where and to the extent the risk assessment shows they are required	Required	Required