 

Checklist for inspections of biological laboratories

Regular audits/inspections of biological facilities are recommended to ensure that standards are being maintained, and the fabric of the laboratory is not deteriorating. The checklist is meant to aid this process by highlighting the main areas considered on an inspection:

* Access and signage;
* Environment and Housekeeping;
* Hygiene and Personal Protective Equipment;
* Equipment/Apparatus;
* Laboratory procedures;
* Laboratory documentation;
* Working arrangements.

The primary aim of this list is to ensure compliance with the requirements of the *Control of Substances Hazardous to Health Regulations* and *The* *Genetically Modified Organisms (Contained Use) Regulations*, and also demonstrate good practice.

Work within the University is predominantly carried out in containment level 1 and 2 laboratories. There is some work at CL3, but these are specialist facilities and are dealt with separately.

**Guidance Notes**

Work with wild type biological agents and human/animal/plant material is covered by the *Control of Substances Hazardous to Health Regulations*

CL1 is generally the standard for most undergraduate teaching work, although demonstration may involve the handling of Hazard Group 2 agents by trained personnel. HG1 agents are by definition unlikely to cause disease in healthy humans.

CL2 is the most commonly used containment level and covers a wide range of clinical and research work. HG2 agents are capable of causing disease, but are unlikely to spread further to the community and, in any case, effective treatment is available.

Genetically modified micro-organisms are subject to legislation of their own (*The Genetically Modified Organisms (Contained Use) Regulations*), although the controls for ACDP levels 1 and 2 and ACGM levels 1 and 2 are broadly equivalent. The table of control measures used to determine the Class of GMM is contained within the assessment *proforma*.

Most facilities (aside from some teaching laboratories) are designed to CL2 standard and may house a mix of work at both CL1 and CL2. In such cases it is good practice to ensure that everyone is aware of the work being undertaken in the multi-user facility, and that the higher CL2 standard is applied throughout the laboratory to avoid lapses in control standards.

There may be some central facilities, such as autoclaves and wash up areas. During inspections it is advised that the distance from laboratory to autoclave is considered, as well as the route. For example, does waste have to be transported through public areas when moved from lab to autoclave? If so, can this be avoided? Where an alternative route cannot be found the waste should be moved using secured, secondary containment (e.g. containers with clipped lids).

**Checklist for ACDP/ACGM level 2 facilities**

**Laboratory:**

**Department:**

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| **Research Group:**  **Area of research:** |

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| **Requirement** | **Yes/No** | **Comments** |
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| **Access/signage** |  |  |
| Containment level displayed |  |  |
| Biohazard sign |  |  |
| Lab locked when not in use |  |  |
| Door closed if room under negative pressure |  |  |
| Authorised persons only |  |  |
| Responsible person for lab |  |  |
| Contact details |  |  |
| **Environment and Housekeeping** |  |  |
| Lighting adequate |  |  |
| Comfortable temperature |  |  |
| Lab under negative pressure. If so, tested |  |  |
| Ventilation adequate, not interfering with safety cabinet |  |  |
| Aisles uncluttered |  |  |
| Floor clean and in good condition |  |  |
| Benches clean, in good condition and uncluttered |  |  |
| Lab sink clean |  |  |
| Disinfection regime in place |  |  |
| Disinfectant available and made up fresh |  |  |
| **REQUIREMENT** | **YES/NO** | **COMMENTS** |
| **Hygiene and PPE** |  |  |
| Wash basin near exit with elbow taps |  |  |
| Soap available |  |  |
| Paper towels available in dispenser |  |  |
| Waste bin for non-hazardous waste |  |  |
| Lab coats worn and stored correctly |  |  |
| Outdoor clothing stored elsewhere |  |  |
| Gloves available – material used |  |  |
| Other PPE |  |  |
| **Equipment** |  |  |
| Electrical items tested |  |  |
| Absence of overloaded sockets |  |  |
| Centrifuges serviced and maintained |  |  |
| Autoclave in vicinity |  |  |
| Autoclave serviced and maintained |  |  |
| Autoclave log kept |  |  |
| Autoclave operators trained |  |  |
| Safety Cabinets tested and serviced |  |  |
| Safety Cabinet test records kept |  |  |
| Other equipment maintained and serviced |  |  |
|  |  |  |
| **Lab Procedures** |  |  |
| Waste disposal procedures in place |  |  |
| Fridge/Freezer inventories in place |  |  |
| Labelling of fridge/freezer contents |  |  |
| Labelling of incubator contents |  |  |
| Safe storage of biological agents |  |  |
| Labelling of biological agents |  |  |
| Secure storage of Schedule 5 substances |  |  |
| Safe and proper chemical storage |  |  |
| Chemicals labelled and segregated correctly |  |  |
| **REQUIREMENT** | **YES/NO** | **COMMENTS** |
| **Lab documentation** |  |  |
| Biological COSHH/GM assessments readily available |  |  |
| Biological COSHH/GM assessments relevant and recently reviewed |  |  |
| All workers trained |  |  |
| Training record kept |  |  |
| Untrained staff/visitors always supervised |  |  |
| Local policies and procedures |  |  |
| Out of hours working |  |  |
| Lone working arrangements |  |  |
|  |  |  |
| **Working arrangements** |  |  |
| No. of people in facility at any one time |  |  |
| Adequate space and facilities |  |  |
| If more than one research group, is work compatible? |  |  |
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| **Interviews with Lab users – comments (satisfactory demonstration of awareness of hazards, risks, controls needed etc)** |