

## University-Wide Biosafety Audit Compliance Report

Laboratory audits assess the compliance of laboratories against criteria put forth by the Public Health Agency of Canada and the Canadian Food Inspection Agency. The [combined set of criteria](#) lists the references to the combined standards and gives an expected method of local implementation within the Supervisor's laboratory.

The data below indicate the rates of compliance with these combined standards over the past three years.

| REQUIREMENT  | 2020 | 2019 | 2018 | DIFF OVER 2 YEARS |
|--|------|------|------|-------------------|
| Laboratory area separated from administrative offices and public corridors by a door.  | 100% | 100% | 100% | 0%                |
| Dedicated paperwork/computer areas segregated from lab work areas.   | 98%  | 95%  | 89%  | 9%                |
| Windows on containment barrier to be constructed and used according to function.   | 100% | 100% | 100% | 0%                |
| Doors to the lab are lockable and locked when unoccupied, animal room doors closed at all times.   | 100% | 99%  | 98%  | 2%                |
| Change area to be provided for entry into biohazard animal rooms.  | 100% | 100% | 100% | 0%                |
| Anteroom to be provided at entry into biohazard animal rooms.  | 100% | 100% | 100% | 0%                |
| Contact information present and current.   | 54%  | 66%  | 73%  | -19%              |
| Biohazard signage.   | 82%  | 85%  | 59%  | 23%               |
| Controlled access to be provided for all animal rooms.   | 100% | 100% | 100% | 0%                |
| Space to be provided for storage of PPE.   | 99%  | 86%  | 95%  | 4%                |
| Junction between floor and walls to be continuous in biohazard animal rooms.   | 100% | 100% | 99%  | 1%                |
| Chairs in laboratory work areas to be non-absorbent.   | 91%  | 93%  | 82%  | 9%                |
| All other laboratory work area surfaces to be non-absorbent.   | 56%  | 53%  | 53%  | 3%                |
| Floors and surfaces to withstand repeated washing if required.   | 96%  | 98%  | 97%  | -1%               |
| Work surfaces to be non-absorbent and easily cleanable.  | 85%  | 87%  | 90%  | -5%               |
| Seams to be sealed.  | 100% | 98%  | 98%  | 2%                |
| Backsplash to be continuous and sealed.  | 100% | 99%  | 100% | 0%                |
| Floors to be slip resistant.   | 100% | 100% | 98%  | 2%                |
| Exposed piping and conduits in biohazard animal rooms to be mounted and easily cleanable.  | 100% | 100% | 100% | 0%                |
| Services and equipment in biohazard animal rooms, critical to maintaining containment and biosecurity, to be supported by emergency power. | 100% | 100% | 99%  | 1%                |
| Handwashing sink to be provided.   | 99%  | 99%  | 96%  | 3%                |
| Handwashing sinks in biohazard animal rooms to be hands-free.  | 100% | 100% | 98%  | 2%                |

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|--|------|------|------|-----|
| Emergency eyewash to be provided.  | 96%  | 96%  | 96%  | 0%  |
| Emergency eyewash to be tested weekly.   | 77%  | 70%  | 66%  | 11% |
| Emergency shower to be provided.   | 97%  | 93%  | 99%  | -2% |
| Emergency shower tested.   | 93%  | 92%  | 86%  | 7%  |
| BSCs and primary containment enclosures must be certified.   | 98%  | 99%  | 98%  | 0%  |
| BSCs and primary containment enclosures to be used for BSL2, large volumes or aerosol generation. Recommended for use as a sterile field when handling BSL1 or lower cultures. | 100% | 100% | 100% | 0%  |
| Waste packaged securely for disposal.  | 95%  | 97%  | 92%  | 3%  |
| Decontamination technologies, to be provided with monitoring and recording devices that capture operational parameters.  | 100% | 100% | 100% | 0%  |
| Decontamination by autoclaving must be validated.  | 100% | 100% | 99%  | 1%  |
| Vacuum lines equipped with inline HEPA filters.  | 95%  | 84%  | 82%  | 13% |
| Two-way communication to be provided if lab entry and exit procedures are restrictive.   | 100% | 100% | 100% | 0%  |
| Proper installation and use of Class II B2 BSCs.   | 100% | 100% | 100% | 0%  |
| Process equipment, closed systems, and other primary containment devices to be designed to prevent the release of infectious material or toxins.                               | 100% | 100% | 100% | 0%  |
| BSCs or primary containment enclosures are to be installed away from sources of air movement.  | 100% | 100% | 100% | 0%  |
| Animal caging to provide containment and prevent escape.   | 100% | 100% | 100% | 0%  |
| Centrifuges used for BSL2 materials require safety cups.   | 99%  | 97%  | 96%  | 3%  |
| BSCs and primary containment enclosures to be properly used.   | 93%  | 93%  | 93%  | 0%  |
| NSF49 certification is required for BSCs and manufacturer's specs for other primary containment devices.   | 99%  | 100% | 100% | -1% |
| A biosafety program is implemented per RMM600.   | 95%  | 94%  | 72%  | 23% |
| SOPs are accessible and up to date.  | 46%  | 34%  | 45%  | 1%  |
| SOPs are developed for the work in progress.   | 74%  | 78%  | 60%  | 14% |
| Biosecurity plan in place.   | 65%  | 52%  | 62%  | 3%  |
| Medical surveillance program available.  | 65%  | 45%  | 62%  | 3%  |
| Respiratory protection program to be in place.   | 100% | 100% | 100% | 0%  |
| Training to be provided and completed for the work assigned.   | 57%  | 39%  | 52%  | 5%  |
| Emergency response plan which incorporates select SOPs is available and used.  | 79%  | 91%  | 83%  | -3% |
| A BUP is completed, up to date and approved.   | 29%  | 22%  | 31%  | -2% |
| Biological inventory available and maintained.   | 63%  | 48%  | 68%  | -5% |

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|---|------|------|------|------|
| Labcoats are to be available and used appropriately.  | 98%  | 97%  | 90%  | 8%   |
| Face and eye protection to be available and used where appropriate.   | 98%  | 97%  | 98%  | 0%   |
| Gloves are to be available and used appropriately.  | 99%  | 99%  | 100% | -1%  |
| PPE to be decontaminated prior to disposal or reuse.  | 96%  | 99%  | 97%  | -1%  |
| Personal belongings stored appropriately.   | 99%  | 97%  | 99%  | 0%   |
| PPE to be removed and stored or disposed properly.  | 82%  | 91%  | 95%  | -13% |
| Gloves to be removed and disposed properly prior to exit.   | 100% | 100% | 100% | 0%   |
| Laboratory area restricted to authorized personnel.   | 98%  | 100% | 100% | -2%  |
| Visitors log to be kept.  | 95%  | 98%  | 95%  | 0%   |
| Animal areas routinely decontaminated.  | 100% | 100% | 100% | 0%   |
| Eating and drinking is prohibited in the laboratory work area where infectious materials are handled or stored.                   | 100% | 100% | 100% | 0%   |
| Work surfaces to be decontaminated after every use.   | 72%  | 75%  | 83%  | -11% |
| Storage units to be labeled with the biohazard symbol.  | 34%  | 33%  | 66%  | -32% |
| Appropriate sample storage outside containment zone   | 98%  | 99%  | 97%  | 1%   |
| Long hair to be restrained.   | 100% | 100% | 100% | 0%   |
| Hands to be washed after removing gloves, after handling infectious materials and prior to exit of the laboratory.                | 91%  | 93%  | 98%  | -7%  |
| Appropriate footwear to be worn.  | 100% | 100% | 99%  | 1%   |
| Open flames to be avoided.  | 99%  | 100% | 100% | -1%  |
| Samples to be transported securely.   | 84%  | 85%  | 91%  | -7%  |
| Procedures to prevent a spill or loss of a containment while working with or transporting infectious materials to be implemented. | 99%  | 98%  | 98%  | 1%   |
| Infection of autologous (self) samples is prohibited.   | 100% | 100% | 100% | 0%   |
| Laboratory working areas to be uncluttered.   | 62%  | 44%  | 43%  | 19%  |
| Storage space for materials to be provided.   | 98%  | 76%  | 87%  | 11%  |
| Vermin control to be available.   | 97%  | 95%  | 73%  | 24%  |
| Jewellery to be removed where its use creates a risk of exposure.   | 100% | 100% | 100% | 0%   |
| Oral pipetting prohibited.  | 100% | 100% | 100% | 0%   |
| Open wounds to be covered with waterproof dressings.  | 93%  | 93%  | 88%  | 5%   |
| Cross contamination to be prevented through good microbiological practices.   | 100% | 100% | 100% | 0%   |
| Paperwork to be done in segregated area.  | 97%  | 91%  | 96%  | 1%   |
| Sharps to be used appropriately.  | 100% | 98%  | 93%  | 7%   |
| Proper animal restraint methods used.   | 100% | 100% | 100% | 0%   |
| Transport of infected animals is secure and maintains containment   | 100% | 100% | 100% | 0%   |

|  |      |      |      |      |
|--|------|------|------|------|
| Animal work to be performed an appropriate containment level.  | 100% | 100% | 99%  | 1%   |
| Removal of gross contamination from surfaces and equipment.  | 100% | 100% | 100% | 0%   |
| Biohazard animal bedding to be decontaminated prior to disposal.   | 100% | 100% | 100% | 0%   |
| Disinfectants effective and available.   | 68%  | 47%  | 43%  | 25%  |
| Proper disposal of sharps.   | 95%  | 91%  | 86%  | 9%   |
| Equipment decontaminated prior to removal from containment zone or prior to maintenance or disposal.       | 84%  | 89%  | 88%  | -4%  |
| Waste and equipment to be decontaminated prior to removal and/or disposal.                                 | 100% | 96%  | 100% | 0%   |
| Fire extinguisher locally available and inspected.   | 87%  | 96%  | 90%  | -3%  |
| Fire alarms are audible within the laboratory.   | 100% | 100% | 100% | 0%   |
| ERP to include infectious materials stored outside laboratory.   | 100% | 100% | 99%  | 1%   |
| Injury and incident reporting program to be implemented.   | 67%  | 76%  | 73%  | -6%  |
| Import permits to be kept on file until 2 years past disposal/final transfer.                              | 100% | 100% | 100% | 0%   |
| Any inspection, preventative maintenance, calibration, repair or certification records to be kept on file. | 78%  | 66%  | 78%  | 0%   |
| Personnel to be trained on the hazards of the infectious and non-infectious materials and their use.       | 36%  | 33%  | 52%  | -16% |
| Visual inspections to be done, issues documented.  | 52%  | 37%  | 36%  | 16%  |
| Safety alarms, where provided, to be armed at all times.   | 89%  | 90%  | 97%  | -8%  |