List the Hazards and risk controls as per risk assessment

<table>
<thead>
<tr>
<th>Associated risk assessment reference</th>
<th>Hazards</th>
<th>Risk controls</th>
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<tbody>
<tr>
<td>1</td>
<td>1. infection of worker with biohazards</td>
<td>PPE</td>
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<tr>
<td></td>
<td>2. Irritation of eyes/ skin with disinfectant chemicals</td>
<td>Proper training</td>
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<tr>
<td></td>
<td>3. Contamination of environment with biohazard substances</td>
<td>Regular testing for work effectiveness</td>
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List resources required including personal protective clothing, chemicals and equipment needed

1. PPE: a). gloves, nitrile or latex; b). lab gown with full-length sleeves; c). safety glasses or goggles; d). hair tied back if long; e). proper enclosed footwear; f). respiration if large aerosol hazard of risk group 2 microbes exists.
2. Ethanol, Sodium hypochlorite (MSDS)
3. Spill Kit

List step by step instructions or order for undertaking the task

Part 1. Correct procedure to operate Class II BSC
1. Check if the effectiveness of BSC was tested and certified in past 12 months.
2. BSC should not be used for handling of infectious materials which also contain volatile hazardous chemicals
3. Bunsen burner should not be used in BSC.
4. Book a time to use the BSC.
5. Turn on UV light for sterilization for 20 min.
6. Check the certification sticker and Magnehelic gauge to verify that the biosafety cabinet is working properly. If not, do not use cabinet, and consult lab supervisor Sarah Cui and technical officer Padmaja Dhanvate.
7. Check the air flow indicator to verify that the air flow is operating properly.
8. Put on PPE as described above.
9. Ensure UV light is OFF before starting work. UV is damaging, especially to eyes.
10. DO NOT disrupt the airflow through the hood by placing ANY item on the air vents. Minimise the amount of material in the hood as much as possible to assist with maintaining good airflow. Allow gaps between items at the back of the hood.
11. The interior of the hood should be considered to be a contaminated zone, even though efforts should be made to keep the surfaces clean.
12. Swab the inside surfaces of the BSC with 80% (v/v) ethanol before and after beginning work. If you are working with agents that will not be killed by ethanol, use alternative disinfectant bleach (1%). Does not use bleach routinely in the BSC as this will corrode the steel surfaces of the cabinet.
13. Use excellent aseptic technique when working in the cabinet. Be mindful of which items are contaminated – these must not leave the cabinet without first being killed or contained in a sealed strong container.
14. Turn on the UV light between different procedures in the BSC for 20-30 min.
SAFE WORK PROCEDURE

Part 2. Common mistakes workers make when working in BSCs
1. Assuming that the previous workers decontaminated the cabinet after use.
2. Overfilling the cabinet with work materials.
3. Placing items in the front grill.
4. Working too close to the front edge/ front grill.
5. Moving arms in and out of the cabinet.
6. Discarding materials to a waste container outside the cabinet and not into one inside the cabinet.
7. Not decontaminating materials before withdrawing them from the cabinet.
8. Relying on the UV light to decontaminate the interior of the cabinet
9. Using Bunsen burners and centrifuges inside the cabinet
10. Using volatile chemicals and radionucleotides inside the cabinet.

Part 3. Laminar flow cytotoxic drug safety cabinets
Laminar flow cytotoxic drug safety cabinets are suitable for work with materials containing prions. These cabinets, in contrast to class II BSC, provide protection for cabinet maintenance staff in addition to protection of environment, the material being handled and the operator.

List emergency shutdown procedures
In the event of emergency shutdown, keep minimal exposure of biohazard/GMOs samples, close the cabinet and leave the room immediately.
Follow local emergency procedure and approach emergency contacts.

List Emergency procedures for how to deal with fires, spills or exposure to hazardous substances
In the event of a fire emergency evaluation, keep minimal exposure of biohazard/GMOs samples in the cabinet, turn off and close the cabinet, leave the room.
Follow local emergency procedure and approach emergency contacts.

List Clean up and waste disposal requirements
1. All biohazard spills in the cabinet must be cleaned up immediately. (see appropriate Biohazard Spill SWP). If you need to use bleach (1%) to do this, ensure you follow up with a water-soaked wipe such that the bleach residues are not left in the cabinet, these will corrode the surfaces.
2. If you are exposed to infectious materials or if you become sick and you suspect this is due to biological agents you have handled at work, you must report this to your supervisor as soon as possible, and fill in an online incident report form.
3. Any injuries or incidents must be reported immediately to your supervisor and within 24 h using the online incident report form. Near misses (hazardous situations not leading to an incident) should also be reported.

List references used in the development of this SWP, e.g. codes of practice
1. University WHS website: sydney.edu.au/whs
2. AS/NZS 2243.1:2005-Safety in Laboratories: Planning and Operational Aspects
3. AS/NZS 2243.3:2010-Safety in Laboratories: Microbiological safety and containment
5. AS/NZS 2252.4:2010-Biological safety cabinets Classes I & II-Installation and Use
6. OGTR Guidelines for Certification of a Physical Containment Level 2 Laboratory (v.3.1)
7. OGTR guidelines for the Transport, Storage and Disposal of GMOs (v.1.1)
8. Risk assessment for biohazard spills
9. Risk assessment and SOP for Risk group 2 microorganisms and / or Animals + Animal Tissues and / or Humans/ human tissues
List competency required – qualifications, certificates, licensing, training - e.g. course or instruction:

The staff and students, who completed sufficient training, will obtain access authorisation to the research area, and could work in the laboratory and use Biosafety II cabinet. Staff and students who work in PC2 laboratory should also complete university Biosafety training course and OGTR training if they are working with GMOs. Also, lab members should read and understand legislations and documentations listed in Item 9, need to understand specific hazards associated with the biological samples they are using before they start work; and know the location of spill kits, eyewashes, safety shower, fire extinguishers before starting work.

Staff approved to assess competence for this SWP

Research Supervisors and Lab Supervisors
In signing this section the assessor agrees that the following persons are competent in following this SWP.

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date Competent</th>
<th>Name Assessor/Authoriser</th>
<th>Assessor/Authoriser signature</th>
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