

## Standard Operating Procedure

**SOP038**

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Title: BIOLOGICAL SPILL RESPONSE

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Location: CBE Laboratories

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### **1. PURPOSE**

This SOP describes the emergency response procedures for dealing with the accidental spillage of potentially hazardous biological materials to prevent or minimise exposure of individuals, co-workers and people in surrounding areas.

### **2. SCOPE**

Applies to authorised personnel in the containment level 2 (CL2) CBE laboratories, including the CBE Laboratory Unit (located in the Holywell Park) and the CBE Tissue Engineering Laboratory T208B (located in the Wolfson School).

The types of accident that might be encountered in the Containment Level 2 (CL2) CBE Laboratory Unit will vary from low hazard, small scale releases of biological agents e.g. the discharge of aerosol droplets from a pipette to more serious (but less frequent) incidents that have potential for generating significant aerosols such as dropping a culture flask or a centrifuge incident. This SOP describes the emergency response procedures and action plans for dealing with the accidental spillage of Biological Agents (Hazard Group 1 and 2) and Class 1 Genetically Modified Organisms (GMOs) in locations where the spill is confined within a piece of equipment (such as a BSC, incubator, refrigerator, water bath or centrifuge) or unconfined (on the work bench, floor of the laboratory or incubator room). The SOP covers procedures for dealing with small low risk (<10ml, minimum aerosol potential) spills and large high risk (>10ml, considerable aerosol potential) spills.

#### **SPECIAL NOTES: HEALTH & SAFETY**

- (i) In some situations it may not be appropriate for laboratory personnel to clean up a bio hazardous spill ie (a) An employee has not received appropriate training, (b) An appropriate spill kit is unavailable, (c) The spill represents a combined hazard i.e. Chemical AND Biological, (d) The spill is too large, (e) The spill is in a confined area, eg coldroom.
- (ii) In all cases laboratory staff should determine whether they can affect the decontamination procedure themselves, or whether the local BGMSA/DSO should assist or intercede completely in the incident. This will depend on the amount of material released, and its form coupled with the pathogenicity of the agent. Large amounts of material are more serious than a small spill of the same agent. Of secondary importance is the location of the spilled material. If the material is contained inside a piece of equipment or within a vessel, this is a less hazardous situation than if it is spread out all over a surface in an uncontained manner.
- (iii) Some spills involving Class 1 Genetically Modified Organisms (GMO's) or HG2 BAs may require specialised procedures or for example where the spill involves other hazards not of a biological nature which include: isotopes; chemicals; plant/equipment; electrical equipment; sharps (from broken glass or equipment); liquid nitrogen/low temperature.

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- (iv) Identification and assessment of all the risks associated with the spill, both potential and actual, as well as the various factors listed above, must be taken into consideration before any spill clean-up begins. Particular care should be taken to ensure that others in the laboratory do not help with the clear up of accidental spillage (especially where there has been an accident that involves broken glass) unless they are aware of the potential risks and trained in safe working practices. Personal exposure always takes priority over clean up.

### **3. RESPONSIBILITIES**

#### **3.1. Laboratory Manager/Supervisors/Principal Investigators shall:**

- (i) Ensure employees have been given adequate supervision and instruction on procedures for eliminating or reducing exposure to aerosols and the emergency response procedures for dealing with spillages
- (ii) Ensure that in the event of a significant spillage, the causes of the spillage are established and control measures to prevent recurrence are identified and implemented.
- (iii) Ensure that in the event of a significant accident or incident, the local BGMSA/DSO is notified
- (iv) Ensure Spill Kits are available, in good condition and are replaced when used or components out of date.

#### **3.2. Laboratory Personnel shall:**

- (i) Have assessed and understood the risks associated with the biological material being used
- (ii) Determined contingency plans for the spill response within the risk assessment before any work activity commences to ensure that the identified course of action/procedure is appropriate for the type of agent, type and severity of potential accident, the location of the activity, the number of people potentially exposed and the room air change rate.
- (iii) Ensure that all work is planned so as to minimise the chance of a spill eg use of containment measures during storage and transfer procedures from BSCs to other areas of the laboratory.
- (iv) Be familiar with the procedures for dealing with common spill detailed in this SOP.
- (v) Record all spills in the logbooks or forms provided
- (vi) Promptly report any known incidents/accidents or unsafe conditions to their supervisor

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## **4. EQUIPMENT AND MATERIALS**

### **(i) Basic Biological Spill Response Kit**

It is recommended that spill response kits contain the following or their alternative:

- Biohazardous Spill Warning Signs to limit laboratory access (a template is provided in Annex 1)
- Tape or marking device to mark off the spill area Powdered Disinfection Agent (Virkon powder sachets)
- Scoop (dustpan) and scraper for cleaning up powdered disinfection material
- Autoclavable bucket for diluting Virkon (1% Virkon solution)
- Forceps, Autoclavable dustpan or other mechanical device for handling sharps
- Autoclavable Sharps container
- Paper towels or other suitable absorbent materials
- Biohazard (Autoclave) bag for collection of contaminated spill clean up items
- Water proof utility gloves and nitrile or latex disposable examination gloves
- Disposable lab coat and shoe covers
- Face protection (face shield, goggles or safety glasses, disposable face mask or respirator)
- Disposable hand antiseptic scrubs
- List of content plus expiry dates where relevant

**NOTE:** After use the spill kit should be replenished or replaced with a new kit

## **5. PROCEDURE**

### **ALL SPILLAGES MUST BE DEALT WITH IMMEDIATELY.**

#### **5.1. Unconfined Spillages outside the Biological Safety Cabinet (i.e. on the work bench, floor or walls of the laboratory)**

Unconfined biological spills outside biological safety cabinets will generate aerosols that can be dispersed in the air throughout the laboratory. Since spills of biological materials will happen, it is important to be prepared prior to having to deal with the problem.

**CAUTION:** If the spill involves both chemical and biological agents consult the SOP for chemical spill procedures. If the chemical(s) in the spill present a greater hazard than the biological agent(s) proceed with chemical decontamination first.

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**CAUTION:** Normal laboratory waste disposal procedures should be used for spill clean-up material. Spill cleanup material containing virkon should not be autoclaved. Disinfectants should not normally be autoclaved as they can damage the autoclave or produce toxic vapours.

### 5.1.1. SMALL OR LOW RISK SPILLAGES (less than 10ml and generating little aerosol)

Spills of Low Risk Material with minimal aerosol generation may be cleaned up using the following procedure:

- (i) Alert people in immediate area of spill.
- (ii) Thoroughly wash hands and other potentially contaminated areas with soap and water. Put on clean disposable gloves and shoe covers/protectors (if spill is on the floor).
- (iii) Use forceps or other mechanical means (i.e. dustpan & scraper) to remove broken glass or other sharps and place in sharps container.
- (i) Use forceps or other mechanical means (i.e. dustpan & scraper) to remove non-sharp solid material and place in autoclave bag/container or yellow disposal bag as appropriate.
- (iv) Use forceps or other mechanical means (i.e. dustpan & scraper) to remove non-sharp solid material and place in autoclave bag/container.
- (v) Cover the spill area with paper towels soaked with 1% Virkon solution. Leave for 10 minutes (or manufacturer's recommendation). **CAUTION:** Do not pour disinfectant directly onto a spill as this can produce more aerosols.
- (vi) Place the soaked paper towels (and other virkon soaked items) into a yellow biohazard disposal bag.
- (vii) Wipe the spill and adjacent area with the paper towels soaked in 1% Virkon solution. Place the used towels and gloves in the yellow biohazard bag/container. **NOTE:** Do not steam sterilise material wetted with virkon.
- (viii) Remove all PPE immediately upon leaving the work area and as soon as possible if overtly contaminated. Place all reusable contaminated PPE (eg labcoat, goggles etc) in an autoclave bag/container for decontamination (for reusable items not overtly contaminated with virkon). Place non reusable items (eg gloves, overshoes, disposable face masks) in a yellow biohazard disposal bag. Alternatively, contaminated items can may be disposed of as biohazardous (Healthcare) waste using the appropriate disposal route (refer to SOP003).
- (ix) Wash hands and other potentially contaminated areas again with soap and water.
- (x) Inform lab staff when clean-up is complete.

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- (xi) Complete the Spill Record in the logbook or form (FSOP038.1) provided. Refer to Section 5.5 for other reporting requirements.

**NOTE:** This spillage procedure is displayed on the Laboratory wall

### 5.1.2. LARGE OR HIGH RISK SPILLS (more than 10 ml or with considerable aerosol)

A large spill is generally defined as a sufficient quantity that if spilled tends to seek its own level. In other words it runs to a low point. The main concept that would cause one to treat a large spill differently is containment: one would want to make sure the spill did not spread and contaminate other areas.

**NOTE:** Although respirators with P1 or P2 filters can provide adequate respiratory protection in certain circumstances, the higher protection offered by HEPA filters with a half or full face respirator is recommended for spill clear-up operations. Goggles/face masks should be worn where full face respirators are not used.

**NOTE:** Emergency spill kits are available in the Laboratory areas (and the Receipt of Goods area). During normal working hours, assistance for dealing with a large spill may be sought by contacting local BGMSA and/or the DSO.

**NOTE:** Laboratory work must not be carried out outside working hours without prior arrangement with the Laboratory Manager, BGMSA and the DSO.

The clean-up procedure is as follows:

#### Immediate Action

- (i) Try to avoid breathing the aerosol. Alert other laboratory staff and leave the laboratory immediately.
- (ii) Leave the BSC operating or switch on. Leave any cultures inside cabinet.
- (iii) Close laboratory doors and post warning signs to prevent others entering the laboratory.
- (iv) Remove contaminated PPE or clothing and leave in the laboratory.
- (v) Wash hands and other potentially contaminated areas with soap and water.
- (vi) Report the incident to the Laboratory Manager. For significantly large spills (i.e. >100 ml) contact the local BGMSA and/or DSO for advice before proceeding. If authorized, proceed as follows: -

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- (vii) Wait at least 30 minutes\* to allow dissipation of aerosols created by the spill.

**\*NOTE:** Assessing the time to clear the laboratory requires the following information: concentration of microorganism in solution spilled, quantity of solution spilled the room ventilation air change rate. Consult the local 'Code of Practice for work with BAs and GMOs' for further advice.

- (viii) Assemble a clean-up team consisting of three people: one to observe and direct the clean-up procedure, and the other two, who must be properly trained, to carry out the procedure.

### Re-entering the laboratory

- (ix) Put on appropriate protective clothing, this should include lab coats, disposable gloves, shoe protection, and safety goggles and mask or full-face shield before entering the area of the spill.
- (x) Upon returning to the laboratory to start decontamination, check to see if laboratory doors are closed and appropriate signs are displayed.
- (xi) Determine the extent of contamination. Contain to spillage to avoid spreading
- (xii) Use forceps or other mechanical means (i.e. dustpan & scraper) to remove broken glass or other sharps and place in sharps container.
- (xiii) Use forceps or other mechanical means (i.e. dustpan & scraper) to remove non-sharp solid material and place in autoclave bag/container or yellow disposal bag as appropriate.
- (xiv) Cover the spill area with sufficient powdered Virkon, working from the outside of the spill to the inside i.e. pour powdered Virkon onto surface away from the spill and slowly push the material into the spill in order to prevent aerosol generation. **CAUTION:** The effectiveness of disinfection can be impaired by the presence of large amounts of organic matter or the use of buffered culture media
- (xv) Leave for 30 minutes or until all liquid is absorbed.
- (xvi) Scrape the soaked powder into a dustpan and place into a biohazard bag/container.
- (xvii) Wipe the spill and adjacent areas with the paper towels soaked in 1% Virkon solution and place the used towels in the biohazard bag/container. **CAUTION:** Do not steam sterilise material wetted with virkon.
- (xii) Remove all PPE immediately upon leaving the work area and as soon as possible if overtly contaminated. Place all reusable contaminated PPE (eg labcoat, goggles etc) in an autoclave bag/container for decontamination (for reusable items not overtly contaminated with virkon).

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Place non reusable items (eg gloves, overshoes, disposable face masks) in a yellow biohazard disposal bag. Alternatively, contaminated items can may be disposed of as biohazardous (Healthcare) waste using the appropriate disposal route (refer to SOP003).

- (xviii) Thoroughly wash hands, face, and other potentially contaminated areas again with soap and water.
- (xix) Inform lab staff when clean-up is complete.
- (xiii) Complete the Spill Record in the logbook or form (FSOP038.1) provided. Refer to Section 5.5 for other reporting requirements.
- (xx) Seek medical assistance/treatment if required. This will depend on the nature and duration of exposure and the agent release

**NOTE:** This spillage procedure is displayed on the Laboratory wall

**CAUTION:** In certain irregular or more markedly hazardous situations (e.g. those involving coincidental radiation or toxic chemical release along with the biohazard incident or those involving large spaces or surface areas of equipment) the BGMSA/DSO will determine which hazard poses the greatest immediate risk to all personnel affected and together will develop an appropriate response plan to address any and all hazards.

**NOTE:** The nature of the spillage will influence the extent of further cleaning required. For example, extensive cleaning of the floor (and laboratory) is likely to be required where a flask has been dropped, as contents will have contaminated areas far away from point of impact. For this reason floors under all benches within CL2 Laboratories should not be cluttered with boxes or other absorbent items

**NOTE:** Special care in decontamination may be necessary. The Laboratory Manager and/or the BGMSA/DSO may require the collection of sample cultures to determine that the area has been effectively decontaminated.

### 5.2 Confined Spillage inside the Biological Safety Cabinet

Droplet-size spills or those up to 1 mL may be treated easily by wiping or flooding with a suitable disinfectant solution. If a larger spill or breakage occurs, more extensive treatment may be needed. The occurrence of a spill in a biological safety cabinet poses less of a problem than a spill in an open laboratory provided that the spilled material is contained in the biological safety cabinet. A BSC is designed to contain spills and associated aerosols, which are released during work within the cabinet. Provided that the BSC is operating properly and has been inspected and certified, aerosols produced by a spill should be contained.

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A spill of a biohazardous material should be attended to immediately. Decontamination of the work zone can usually be accomplished by direct application of concentrated liquid disinfectants along with a thorough wipe down procedure.

**NOTE:** Fumigation may be required to treat inaccessible sections of the cabinet interior following a spill or for certain HG2/GMO organisms (consult risk assessment).

The procedure is as follows:

- (ii) Alert people in immediate area of spill.
- (iii) Leave the biological safety cabinet switched on to retain aerosols during steps (iii) to (x).
- (iv) Put on clean disposable gloves.
- (v) Cover the spill area with paper towels soaked with 1% Virkon solution. Leave for 10 minutes (or manufacturer's recommendation). **NOTE:** Do not pour disinfectant directly onto a spill as this can produce more aerosols

**NOTE:** All workers using the BSC's should have a supply of absorbent materials and decontaminating agent within the cabinet or on a trolley nearby.

- (vi) Use forceps or other mechanical means (i.e. dustpan & scraper) to remove broken glass or other sharps and place in sharps container.
- (vii) Use forceps or other mechanical means (i.e. dustpan & scraper) to remove non-sharp solid material and place in autoclave bag/container or yellow disposal bag as appropriate. **NOTE:** Do not steam sterilise material wetted with virkon.
- (viii) Wipe the spill area with paper towels soaked in 1% Virkon solution, working from the edges into the centre. Place used towels and gloves in a yellow biohazard bag/container. **NOTE:** Do not steam sterilise material wetted with virkon.
- (ix) Disinfect gloved hands and remove protective gloves in the cabinet. Remove clothing for sterilization, if contaminated, and wash hands and arms. Put on a clean set of gloves and protective clothing for carrying out the remainder of the clean-up.
- (x) Discard culture bottles, petri dishes and solid material associated with the spill into the same container. Decontaminate (or remove for sterilization) cultures, media and disposable materials adjacent to the spill.
- (xi) Wipe cabinet walls, work surfaces and remaining items of equipment with 1% Virkon solution, followed by 1:20 Chemgene followed by 70% IMS. Disinfect both sides of the front grille and work floor within the cabinet. Items that are not readily or easily surface decontaminated should be carefully placed into autoclave bags for decontamination. **NOTE:** Alcohols are

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relatively volatile and do not provide sustained antimicrobial action.

- (xii) Remove all PPE and contaminated clothing immediately upon leaving the work area and as soon as possible if overtly contaminated. Place all reusable contaminated PPE (eg labcoat, goggles etc) in an autoclave bag/container for decontamination (for reusable items not overtly contaminated with virkon). Place non reusable items (eg gloves, overshoes, disposable face masks) in a yellow biohazard disposal bag. Alternatively, contaminated items can may be disposed of as biohazardous (Healthcare) waste using the appropriate disposal route (refer to SOP003).
- (xiii) Wash hands and other potentially contaminated areas with soap and water.
- (xiv) After completion, allow BSC to run for 10 minutes before resuming work.
- (xv) Inform lab staff that clean up is complete.
- (xvi) Complete the Spill Record in the logbook or form (FSOP038.1) provided. Refer to Section 5.5 for other reporting requirements.

### 5.3 Confined Spillage inside the Centrifuge

**The principles of this procedure may be applied to dealing with confined spills in other pieces of equipment, such as an incubator, refrigerator, or water bath**

Where a spill or leak is detected within a centrifuge, the procedure will depend upon the risk group of the agent involved as well as the construction of the equipment.

**NOTE:** Centrifuging can produce aerosols and therefore bio hazardous material **MUST NOT** be centrifuged in open containers. Sealed containers provide initial protection but must be reinforced by the use of sealed buckets or rotors, which reduce the hazard if the container collapses. All seals should be inspected for damage before each run.

If there is reason to believe that a breakage may have occurred whilst the centrifuge was running, adopt the following procedure:

- (i) If centrifuge contamination is identified after the lid of the centrifuge is opened, carefully close the lid and turn off the centrifuge.
- (ii) If centrifuge contamination is identified whilst the centrifuge is running, turn off the centrifuge.
- (iii) In both cases **DO NOT** open lid as the bowl may contain an aerosol if the centrifuge tube or its seals have failed. **ADOPT THE FOLLOWING PROCEDURE:**
- (iv) Wait at least 30 minutes before opening the lid to allow aerosol to settle.

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- (v) Place notice on the lid to alert others and notify Laboratory Manager/Supervisor.
- (vi) Put on clean disposable gloves and full-face protection. Respiratory equipment may be required – seek advice from Laboratory Manager/DSO or BGMSA.
- (vii) After 30 minutes, open lid carefully and remove the buckets or rotor and transfer to the BSC. Spray and wipe external surfaces with a 1% solution of Virkon before moving to the BSC.
- (viii) Spray the interior of the centrifuge with 1% Virkon solution and wipe down the inside of the centrifuge and all parts of the lid with paper towels soaked in 1% Virkon. **CAUTION:** Limit contact time to 10 minutes. **NOTE:** Do not steam sterilise material wetted with virkon.
- (ix) Rinse the sprayed surface with a neutral pH detergent [e.g. Neutracon] or water, wipe down with 1:50 Chemgene solution and finally wipe with 70% IMS.
- (x) Carefully open the sealed buckets or sealed rotor inside the BSC.
- (xi) Carefully retrieve any broken tubes with forceps or other mechanical means and place in sharps container. Smaller pieces of broken tube may be collected with a paper towel soaked with 1% Virkon and placed in a yellow biohazard bag.
- (xii) Unbroken, capped tubes may be recovered and wiped down with 1% Virkon solution.
- (xiii) Immerse the buckets and lids in 1% Virkon solution for 10mins.
- (xiv) Remove the rotor and attachments and soak in 1% Virkon solution for 10 minutes. Thoroughly rinse with detergent or water and wipe down with 1:50 Chemgene solution.. **CAUTION: DO NOT EXPOSE METAL PARTS TO VIRKON FOR MORE THAN 10 MINUTES.** Prolonged contact with some disinfectants may damage the rotor and other centrifuge components; be sure that such solutions are removed by rinsing well with water.
- (xv) **NOTE:** Alternatively rotors and accessory parts can be autoclaved (see operator manual); 20 minutes at 121°C cycle. **CAUTION: IF THE ROTOR REQUIRES AUTOCLAVING, THE LABORATORY MANAGER SHOULD BE NOTIFIED AND THE ACTION RECORDED IN THE MAINTENANCE AND SERVICE LOG**

**CAUTION:** Rotors **MUST** be cleaned and rinsed with distilled water before being autoclaved. The lids of the rotors and containers must be removed before autoclaving.

**CAUTION:** Rotors **MUST** only be subjected to a maximum of 10 autoclaving. After each autoclave cycle the rotor **MUST** be inspected for signs of wear.

- (xvi) Remove all PPE and contaminated clothing immediately upon leaving the work area and as soon as possible if overtly contaminated. Place all reusable contaminated PPE (eg labcoat,

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goggles etc) in an autoclave bag/container for decontamination (for reusable items not overtly contaminated with virkon). Place non reusable items (eg gloves, overshoes, disposable face masks) in a yellow biohazard disposal bag. Alternatively, contaminated items can may be disposed of as biohazardous (Healthcare) waste using the appropriate disposal route (refer to SOP003).

- (xvii) Wash hands and other potentially contaminated areas with soap and water.
- (xviii) Inform lab staff when clean up is complete.
- (xix) Inspect the centrifuge for defective and damaged components. Retain all components and debris for inspection. Do not use centrifuge or rotor again until authorised by the Laboratory Manager.
- (xx) If there is a possibility that the internal parts of the centrifuge have been contaminated it will be necessary to fumigate the centrifuge by suitable means. This may require the services of an outside contractor/service company. Seek advice from the Area Safety Advisor.
- (xvii) Complete the Spill Record in the logbook or form (FSOP038.1) provided. Refer to Section 5.5 for other reporting requirements.

### **5.4 Spills outside the Laboratory (e.g. in a public access area such as a corridor or lift).**

Always transport bio hazardous material in an unbreakable well-sealed primary container placed inside a leak proof, closed and unbreakable secondary container, labelled with a biohazard symbol (Refer to SOP005).

If a spillage occurs, follow the biological spill procedure for small or large spill outside the BSC

### **5.5 Medical Intervention**

Where an individual/individuals have been exposed and this could result in an immediate or delayed health effect i.e. hazard exposure from face/eye splash, sharps injury or contact with non-intact skin, inform the Laboratory Manager and/or BGMSA/DSO and seek immediate medical attention:

A prompt response is extremely important following laboratory hazard exposure.

- (i) For skin exposure – immediately flood the contaminated are with running water and wash area with soap and water.. Do not apply creams or lotions.
- (ii) For splashes to face (mucous membranes of eyes, nose or mouth) – flush with eyewash for 15 minutes. In the event of biological hazard exposure to the eyes, flush the eyeball and inner eyelid with cold water for 15 minutes. Forcibly hold the eye open to wash thoroughly behind the eyelids; Contact local first aider to get medical attention promptly.

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- (iii) For sharps injury or broken skin - encourage bleeding and the procedure for skin contamination adopted. Do not suck wounds
- (iv) Biological Hazard Ingestion and Inhalation. Contact local first aider to get medical attention promptly.
- (v) Consult the appropriate risk assessments. These should contain possible adverse health effects and detail what immediate action should be taken.
- (vi) Inform the Occupational Health Unit immediately in the event of any accident where exposure to a pathogen, genetically modified micro-organism or potentially infectious material may have occurred - it is important that the need for any prophylactic treatment or health surveillance be assessed on a case by case basis by medical personnel.
- (vii) In the event of a serious injury requiring medical attention, individuals should attend the Accident and Emergency Department/Minor Injuries Unit of the local hospital.
- (viii) If First Aid is required at the site of an incident, locate the nearest First Aider. First aider administers treatment and decides a referral to an A & E department or walk in centre is called for.
- (v) Out of normal working hours, contact the Accident and Emergency Department/Minor Injuries Unit of the local hospital.

### **5.6 Reporting and Recording Accidental Release/Spillage**

- (i) Record all spills in the Spill Record FSOP038.1. Report accidental release/spillage of BA's/GMO's to the Laboratory Manager or BGMSA/DSO who will advise on the appropriate forms to complete.
- (ii) In the event of any accident or incident where exposure to a pathogen or infectious material may have occurred, inform the University Health and Safety Department and the Occupational Health Unit immediately.
- (iii) Report all accidents and instances of occupational ill health (illness reliably attributed to a work activity) to the University Health and Safety Department as soon as possible after the incident has occurred, so that the requirements of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations may be met. Any reporting required under these Regulations will be undertaken by the Health and Safety Department. Use online reporting system.

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**NOTE:** No accident should be considered too trivial to report. Near misses that could have had serious consequences should also be reported. Details of the accident reporting system in the University are available on the Health and Safety Department website.

**NOTE:** For guidelines on how to complete an accident report form, please consult Guidance Note, "Reporting of Accidents, Dangerous Occurrences and Occupational Ill Health - Staff, Students, Contractors and Visitors" (Available at <http://www.lboro.ac.uk/admin/hse/accidents.html>).

- (iv) Forward copies of accident and near misses records involving potentially hazardous biological material to the University Biological Safety Officer
- (v) Any serious injury will be investigated by the CBE Laboratory Management Committee (and potentially by the University Safety Office). In the event of an investigation, you will be required to produce signed risk assessments, protocols and laboratory books within 24 hours of the incident being reported.
- (vi) In the event of an Emergency First Aid incident dial 999 from the nearest telephone. Once you have spoken to the ambulance controller please inform University Security (see emergency contact displayed on the laboratory wall)

### 5.6.1 Notification of Accidents and Incidents Involving Genetic Modification Activities to the Health and Safety Executive

There is a requirement under the Genetically Modified Organisms (Contained Use) Regulations to immediately notify the Health and Safety Executive of any accident or incident involving a significant or unintended release of a genetically modified organism that presents an immediate or delayed hazard to either human health or safety or the environment. This requirement is in addition to any notification requirements under RIDDOR (the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995). Full details of the information required to be notified to the HSE regarding accidents are given in the Regulations. Guidance is available in the local Code of Practice.

**NOTE: Accidents involving micro-organisms used in Class 1 activities are unlikely to require notification.**

It is the responsibility of the University Health and Safety Department to make notifications to the Health and Safety Executive of any accidents or incidents occurring within the University that require to be notified either under the Contained Use Regulations or RIDDOR. The CBE Laboratory Management committee should not make any such notifications; instead they should contact the University Health and Safety Department as detailed below.

- (i) In the event of any accident or incident involving the spillage or release of any genetically modified organisms or micro-organisms or where exposure to a genetically modified micro-

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Version 004

Effective Date: 27<sup>th</sup> April 2020

Review 27<sup>th</sup> April 2022

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Written by: P.Hourd	Reviewed by: C.Kavanagh	Approved by: R.I.Temple
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## Standard Operating Procedure

**SOP038**

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Title: BIOLOGICAL SPILL RESPONSE

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Location: CBE Laboratories

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organism may have occurred, immediately inform, preferably by telephone, the University Health and Safety Department and the Occupational Health Unit

- (ii) Prepare a full accident record and forward to the Health and Safety Department as soon as possible.

The University Health and Safety Department will decide whether any accident or incident requires notification to HSE, be it under the Contained Use Regulations or RIDDOR. The CBE Laboratory Management Committee does not need to make any decision on this.

## **6. DOCUMENTATION**

The following records are outputs of this SOP:

FSOP038.1. Spill Record

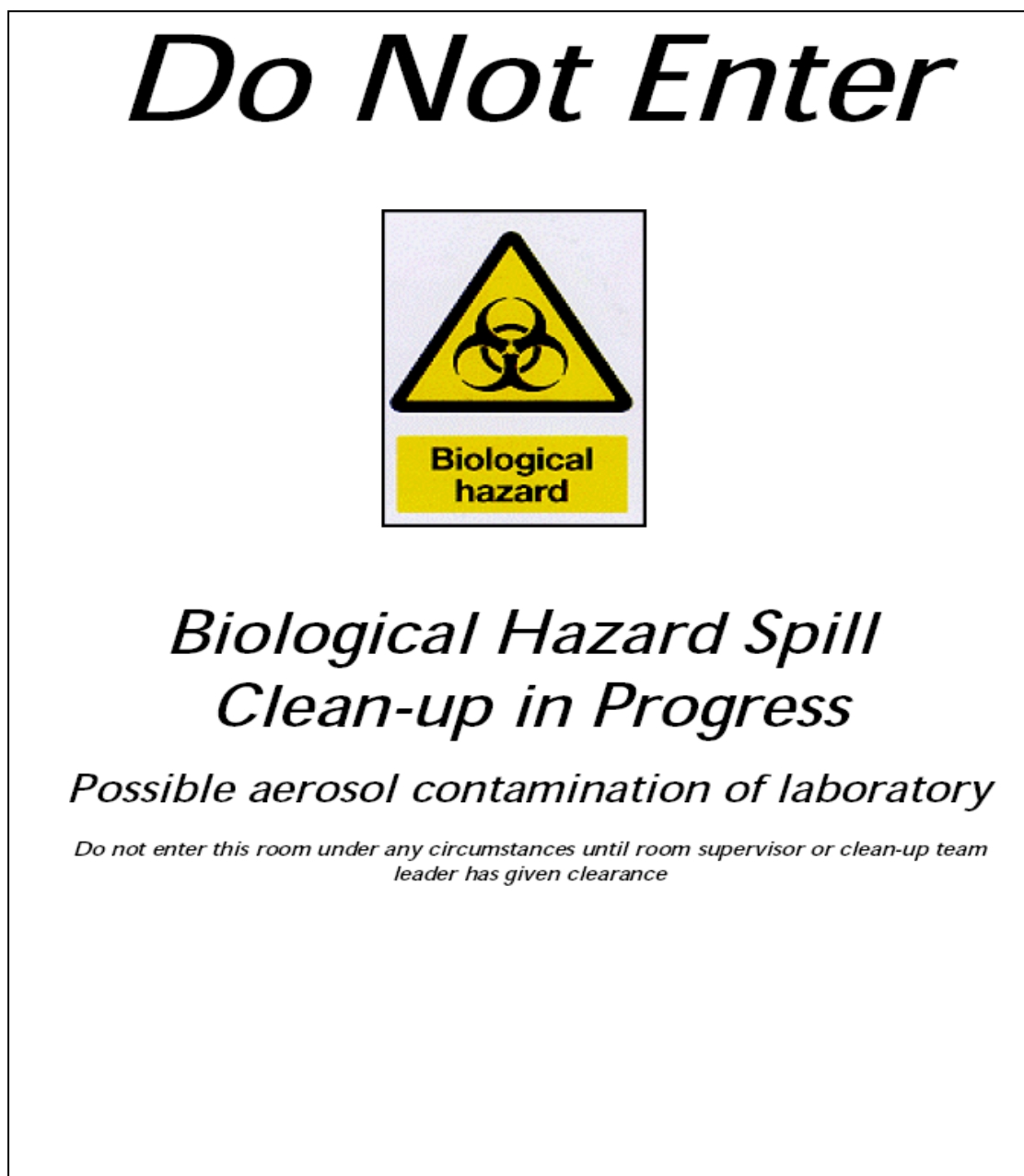
All spills are recorded in a Spill Record logbook or using the form FSOP038.1 (available on the CBE website).

These records shall be filed and stored in the CBE Office or otherwise archived for future review or retrieval.

Title: BIOLOGICAL SPILL RESPONSE

Location: CBE Laboratories

Annex 1: Example of a sign used in a spill kit



**Standard Operating Procedure**

**SOP038**

Title: BIOLOGICAL SPILL RESPONSE

Location: CBE Laboratories

**SOP Version History**

<b>Version Reviewed</b>	<b>Date Revised/ Reviewed</b>	<b>Revision Summary</b>	<b>New Version Number</b>
1.0	25.03.10 P.Hourd	Annual Review – Minor editorial revisions. Surname of reviewer (CK) updated. New version issue not required	Not issued
1.0	01.10.12 P.Hourd	Annual Review – Format revised	2.0
2.0	1 <sup>st</sup> November 2015 C. Kavanagh	Annual review. Minor editorial revisions. New version number not required.	2.0
2.0	19 <sup>th</sup> January 2016 C.Kavanagh	i)Removal of reference to 70% IMS due to its use as disinfectant being withdrawn from the CBE laboratories. ii)Added the use of 1:20 & 1:50 Chemgene solution were appropriate due to implementation of this disinfectant in the laboratories.	<b>3.0</b>
3.0	1 <sup>st</sup> March 2016 C.Kavanagh	i)Addition of reference of 70% IMS which has been re-introduced into the laboratories for a 'rinsing' stage following disinfection with chemgene ( to avoid a residue being left on equipment & surfaces).	4.0
4.0	1 <sup>st</sup> June 2018 by K.Sikand	No revisions	4.0
4.0	27 <sup>th</sup> April 2020 by C.Kavanagh	Minor Revisions only	4.0

Version 004

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