This document meets the requirements of Maine DEP 38 MRSA Chapter 900 for the development, implementation and maintenance of a written biomedical waste management plan (BWMP; the Plan).

Purpose

The purpose of the BWMP is to provide information to the employees of Bowdoin College regarding the segregation, packaging, labeling, handling, storage, transport and disposal of biomedical wastes generated in the workplace.

Scope

The BWMP applies to all employees of Bowdoin College (including part-time, contract and student employees, and contracted vendors working onsite) who generate, handle and/or manage biomedical wastes in the course of their work.

Bowdoin College is registered with Maine Department of Environmental Protection (MDEP) as a large quantity generator of biomedical wastes. The Biomedical Waste Generator Registration number is: BWGL-0000164.

Program Components

1. Assignment of Responsibilities.
   Each Department or Group generating biomedical wastes will designate at least one Responsible Person to oversee the implementation of the BWMP for their particular operations, specifically:
   
   • Supervising the identification, collection, and containment of biomedical wastes;
   • Maintenance of the workplace biowaste accumulation areas;
   • Arranging for the transfer of full waste containers to the central accumulation area (CAA) for disposal; and
   • Participating in the annual Plan review.

   A current list of designated Responsible Persons is included in the attached BWMP Summary, and will be updated at least annually during the periodic review of the Plan.

   The Science Center Laboratory Manager is the default Biomedical Waste Coordinator (BWC) for the College, in cooperation with the Associate Director of Environmental Health and Safety (EHS). The BWC and Associate Director of EHS will jointly be responsible for:

   • Maintenance of the biomedical waste CAA;
   • Coordinating the operations of the biowaste accumulation areas with the designated Responsible Persons;
   • Providing guidance, materials, and training on the BWMP to designated Responsible Persons and other identified employees (i.e., Security Officers and Housekeeping);
   • Conducting an annual review and update of the Plan to reflect current operations;
   • Preparing containers and arranging for the disposal of biomedical wastes on an regular schedule; and
   • Maintaining regulatory compliance

3. Biomedical Waste Determination. The following classifications of biomedical wastes are to be used for the purpose of storage and disposal:
• **Sharps**, inclusive of syringes and *contaminated* broken glass.
• **Cultures and stocks** of infectious agents or biological research materials, including animal parts or carcasses.
• **Human blood or bodily fluids**, including materials saturated with same such as medical dressings or spent personal protective equipment (PPE).

The designated Responsible Persons will: identify the biomedical wastes produced by the operations of their Department or Group; notify the BWC and Associate Director of EHS of this waste generation; and regularly review their operations to identify changes in this information. It is the generator’s responsibility to ensure that their biomedical wastes do not contain hazardous, universal, radioactive, or other regulated wastes.

Currently identified biomedical waste streams are listed in the attached *BWMP Summary*.

4. **Biowaste Accumulation Areas.** The designated biowaste accumulation areas are listed on the attached *BWMP Summary*, and will be managed as follows:

   • Accumulation areas will be maintained at or near the point of generation and kept secured from public access.
   • Each individual storage container (sharps box or redbag) will be labeled as biomedical wastes, using the international biohazard symbol and the words “Biomedical Wastes”.
   • Biomedical wastes will be segregated by type (as outlined above), with containers in good condition and of the appropriate material for the waste being stored (i.e., sharps versus soft goods).
   • Biowaste accumulation containers will be transferred to the CAA in the Science Center (Druckenmiller 55-C) within 72-hours after becoming full. Only sealed and properly labeled containers may be transferred between buildings, and may not leave the campus in any case except under manifest by a licensed transporter. Materials from biowaste accumulation areas at off-campus locations may not be transferred by College staff, and will be addressed individually by the disposal vendor. On-campus transfers may be arranged by the Responsible Person by filing a workorder with Facilities Management (x3333).
   • Temporary or intermittent biowaste accumulation areas (i.e., from a laboratory operation of limited scope) are subject to the same management requirements as outlined above for designated biowaste accumulation areas for the duration of their use.

5. **Central Accumulation Area (CAA).** The BWC will manage the storage area as follows:

   • Only the BWC, the Associate Director of EHS, or their designee will have access to the CAA proper. All wastes arriving from biowaste accumulation areas will be inspected for container integrity and proper labeling, consolidated into over pack containers by compatible materials, weighed, labeled, and stored by the BWC.
   • Prior to shipment cardboard overpack containers will be labeled as follows:

     | **Generator:**       | Bowdoin College Science Center                     |
     |                     | 6600 College Station                                |
     |                     | Brunswick, ME 04011                                 |
     |                     | (207) 725-3162                                      |
     |                     | Maine Registration No. BWGL-0000164                 |

     | **Contents:**       | BIOMEDICAL WASTE (with international symbol)        |

     | **Disposal Vendor:**| Contact information and state registration number   |
• Containers will be stored so as to restrict access, allow for ready inspection, and be segregated from other wastes. The containers will be stored on an impervious surface in an appropriate location, to allow sanitary maintenance and prevent damage to the packaging. The storage location will be clearly demarcated as such with a sign (i.e., “Biomedical Waste Storage”) and the international biohazard symbol.

6. Manifesting and Transportation Requirements. Shipments will be managed by the BWC and a licensed waste transporter as follows:

• Wastes will be intact, segregated by type, properly packaged and labeled for transport, and the transporting vehicle placarded according to DOT 49 CFR 171-180 guidelines.
• Wastes will be documented for transport using a biomedical waste manifest. Only the BWC or the Associate Director of EHS may sign the manifest on behalf of the generator.

7. Recordkeeping and Reporting. Biomedical waste documentation will be maintained as follows:

• Original disposal manifests will be provided by the vendor to the BWC or Associate Director of EHS, and maintained on file for at least 3 years.
• Certificates of Disposal will be returned by the handling facility within 35 days of receipt.
• Records of employee training, shipping manifests, and certificates of disposal will be maintained at the facility by the BWC and Associate Director of EHS for at least 3 years.

8. Employee Information and Training. Responsible Persons and other identified employees will receive initial training specific to their work areas, including at least the following:

• The provisions of the biomedical waste regulations;
• The location and availability of the written Plan;
• Biomedical waste determinations and types;
• Universal Precautions;
• Onsite waste storage and transfer procedures;
• Spill containment and clean-up; and
• Manifesting and recordkeeping.

Employee training will be conducted by the BWC or Associate Director of EHS, and may include written, video, or web-based materials, so long as it meets the minimum requirements listed and addresses the specific conditions of each workplace. Employees to be trained will include the Responsible Person(s) representing each Department or Group, and other employees so designated by the BWC or Associate Director of EHS (i.e., Security Officers and Housekeeping).

General informational training of all College employees will be accomplished during initial orientation.

9. Spill Containment and Cleanup. At a minimum, “Universal Precautions” will be used during any biomedical waste spill abatement and an appropriate disinfesting procedure will be followed to insure sanitation of the spill area.

Universal Precautions (UP)
(Excerpted from the Bowdoin College Bloodborne Pathogen Policy)

Universal Precautions, referred to as “UP”, is an approach to infection control which assumes that ALL blood and other potentially infectious materials are potentially infectious and are to be treated as such.

The following is a list of items which are generally accepted as procedurally sound:

1. Washing hands before and after tasks with running water and soap.
2. In the absence of running water, the use of antiseptic towelettes.
3. Using hand, eye and, if appropriate, mouth protection such as gloves, spectacles or goggles, and if needed, a full face shield.

Debris and clean-up materials resulting from the abatement of a biomedical waste spill will be packaged, handled, and disposed of as biomedical waste.

**Blood or Bodily Fluid Spill Cleanup Procedure**

**In the Event of a Spill of Blood or Bodily Fluids:**

Determine PPE requirements based on size and type of spill.

**Large spill** of body fluids such as a sewage leak that has a high risk of splash potential, PPE requirements include chemical resistant gloves (vinyl, nitrile, etc.), shoe covers, disposable Tyvek coveralls or gown and mucous membrane protection that includes goggles and a mask.

**Small spill** of body fluids such as a small pool of blood that has a risk of splashing: PPE requirements at a minimum include waterproof gloves (rubber, nitrile, etc.) and mucous membrane protection with goggles and mask. Protective clothing such as boots and coveralls may be worn depending on the size and potential for splashing during clean-up.

**Dried body fluids or a very small spill of body fluids** such as dried blood or blood from a mild nose bleed that have a low risk of splashing: Wearing water-proof gloves (rubber, nitrile, etc.) at a minimum would be required for PPE in this type of spill cleanup. Other PPE may be worn depending on the situation.

*Note:* In the event of a crime scene or reportable incident, cleanup must not be conducted until after the scene is released by the Incident Commander or agency responsible for investigation.

**Clean up Procedures:**

1. Don necessary PPE to prevent contact with bodily fluids. Restrict access, and do not walk in the spill area. Be aware of the potential for “sharps” to puncture PPE and potential injection hazards. Pick up sharps with tongs or dustpan and broom before cleanup of liquids, if necessary. Place sharps in the appropriate container to prevent injury during handling and transportation.

2. Use absorbent material to soak up and contain spill, working from the edges. Place spill materials in a trash bag or biohazard bag.

3. Flood the surface with a disinfectant (i.e., 10% solution of bleach in water) rated efficacy against a broad spectrum of human infectious agents. Use as directed, and leave on surface for a minimum of ten (10) minutes. Bowdoin housekeeping closets have Alpha-Ph, a chemical that works as a virucide.

4. Do not mix any chemicals when conducting clean-up operations. Follow the label.

5. Carefully clean up and absorb the body fluid material and disinfectant mixture and place all cleanup material into a trash bag or biohazard bag.

6. Properly disinfect or dispose of any items used in the cleanup, such as tongs, forceps, brooms, dustpans, mops, etc. in a trash bag or biohazard bag.

**Basic Hygiene & Accidental Exposures:**

- Employees should wash their hands with soap and warm water immediately after removal of gloves and other protective equipment.
- Disinfect all reusable equipment.
- Upon accidental skin contamination, wash the area with copious amounts of soap and water.
- If the eyes or mucous membranes are accidentally contaminated flush with copious amounts of water.
• Report exposures to the supervisor, and complete an Accident/Incident Report per the College’s procedures.

**Disposal Procedures:**
Most body fluids and clean-up materials that have been disinfected and absorbed so there are no free liquids, can be double bagged in heavy-duty trash bags and disposed of as normal trash. Exceptions would be if the body fluid spill was large quantities (i.e. pooled blood). If clean up materials are soaked or dripping, use additional absorbent and call EHS for biohazard bags & boxes to package material for off-site medical waste incineration. The College’s biohazardous waste storage area is located in Druckenmiller 55-C, and is managed by the Manager of the Bowdoin Science Center and Laboratory Safety.

10. **Program Review.** The BWMP will be reviewed annually by the Associate Director of EHS, BWC, and the designated Responsible Persons, and updated as needed to maintain regulatory compliance and meet the perceived needs of the College’s workplaces.
**BIOMEDICAL WASTE MANAGEMENT PLAN SUMMARY**

<table>
<thead>
<tr>
<th>Department/Group</th>
<th>Biowaste Accumulation Location</th>
<th>Wastestreams</th>
<th>Responsible Person</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Center</td>
<td>Druckenmiller 014G (CAA)</td>
<td>All</td>
<td>Rene Bernier (BWC)</td>
<td>x3162</td>
</tr>
<tr>
<td>Athletics</td>
<td>Farley Fieldhouse Training Room</td>
<td>B</td>
<td>Dan Davies</td>
<td>x3018</td>
</tr>
<tr>
<td></td>
<td>Pickard Fieldhouse Training Room</td>
<td>B</td>
<td>Dan Davies</td>
<td>x3018</td>
</tr>
<tr>
<td></td>
<td>Morrell Gym Training Room</td>
<td>B</td>
<td>Dan Davies</td>
<td>x3018</td>
</tr>
<tr>
<td></td>
<td>Watson Ice Arena Training Room</td>
<td>B</td>
<td>Dan Davies</td>
<td>x3018</td>
</tr>
<tr>
<td>Health Services</td>
<td>Buck Health Center</td>
<td>S,B</td>
<td>Lois Avery</td>
<td>x3779</td>
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</tbody>
</table>

**Notes:**  
BWC = Biomedical Waste Coordinator; CAA = Central Accumulation Area.  
S = sharps, C = cultures and stocks, B = blood or bodily fluids