

# Disposal of Infectious Waste in School Settings: Frequently Asked Questions

## Applicable Laws and Regulations

- SC Code of Laws 44-93: SC Infectious Waste Management Act (<http://www.scstatehouse.gov/code/title44.php> -- scroll down to Chapter 93)
- SC Code of Regulations 61-105: Infectious Waste Management Regulations ([www.scdhec.gov/infectiouswaste](http://www.scdhec.gov/infectiouswaste))
- Federal Regulations (Standard – 29 CFR) Bloodborne Pathogens – 1910.1030 ([http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=standards&p\\_id=10051](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10051))
- U.S. Department of Transportation Federal Regulation 173.197: Regulated Medical Waste (<http://www.gpo.gov/fdsys/pkg/CFR-2010-title49-vol2/pdf/CFR-2010-title49-vol2-sec173-197.pdf>)

### 1. What is infectious waste?

Also known as medical or biohazardous waste, infectious waste is material that was used in health care, research or postmortem exams. It includes:

- Sharps – any waste that may cause a puncture or cut.
- Microbiological specimens – culture dishes, vaccines and other waste that has been exposed to human pathogenic agents.
- Blood and blood products – unabsorbed blood or blood products or absorbed blood when the absorbent is supersaturated (drips when squeezed).
- Pathological waste – parts removed from the human body (unless preserved by a preserving agent) and certain body fluids.
- Contaminated animal waste – parts, bodies and bedding of animals exposed to human pathogens.
- Isolation waste – waste from Biosafety Level 4 agents.
- Other waste – any other waste designated as infectious or any material that has come in contact with infectious waste.

### 2. What is an infectious waste generator?

Any person producing infectious waste, except in a private residence, is considered an infectious waste generator.

### 3. Must schools register with the SC Department of Health & Environmental Control (DHEC) as infectious waste generators?

It is likely that all schools generate infectious waste. Any facility in the state that generates infectious waste must register and receive a waste generator number from the DHEC. With regards to schools, each school that generates any type or amount of infectious waste must register as a separate infectious waste generator; however, if two or more schools share a location without separation by a street or right-of-way then the schools may register as one generator site.

#### **4. Is there a fee associated with registering as an infectious waste generator?**

Fees associated with infectious waste generation are based on the amount of waste generated each calendar month. Fees are due at the time of registration and annually thereafter.

- Small Quantity Generators generate less than 50 pounds of infectious waste per calendar month. There is no annual fee.
- Large Quantity Generators generate 50 to 999 pounds of infectious waste per calendar month. The annual fee is \$150.
- Extra-Large Quantity Generators generate 1000 pounds or more of infectious waste per calendar month. The annual fee is \$600.

#### **5. What method should schools use for determining the amount of waste generated each month?**

When completing the initial infectious waste generator registration form, each school should weigh existing infectious waste and divide the total weight by the number of months it took to generate the waste. If a school has no infectious waste at the time that the initial registration form is completed, an estimated amount based on recall should be entered on the registration form.

As part of the infectious waste requirements, schools must maintain a waste disposal log which will be useful in documenting and monitoring actual amounts of waste generated for future reporting purposes. If the amount of waste generated varies from the amount noted on the registration form that was submitted to DHEC by more than 10%, the school must notify the DHEC within 30 days.

#### **6. What is the process for registering as an infectious waste generator?**

To register as an infectious waste generator, complete the Infectious Waste Generator Registration Form, found on SC Department of Health and Environmental Control's website at [www.scdhec.gov/infectiouswaste](http://www.scdhec.gov/infectiouswaste). Click on the "Forms" link on the left side of the webpage or the "Infectious Waste Generator and Transporter Forms" link. You will see a table with various forms listed. Scroll down to the Infectious Waste section of the table. The first item listed is the Infectious Waste Generator Registration form and the second item is the instructions for completing the registration form.

It is strongly recommended that the registration process be coordinated by one person at the school district level. The registration forms may be completed and submitted by a responsible administrative support person. A separate registration form must be submitted for each school. Even though the process is completed at the school district level, each school that is registered will be considered a separate generator site for the purpose of generator category and fee determination. If two

or more schools share a location without separation by a street or right-of-way then the schools may register as one generator site if desired.

Fees are due at the time of registration and annually thereafter.

If any information submitted on the registration form for a school changes, a new form must be submitted within 30 days. Also see question five (5). A new registration form must be completed every three (3) years.

**7. Will school districts receive a notice when it is time to renew?**

Yes.

**8. Is there a penalty for not registering?**

Per Sections 44-93-140 and 44-93-150 of the SC Code of Laws, willful failure to comply with laws regarding infectious waste management or with a procedure or requirement set forth in the regulations is a misdemeanor punishable by a fine of not more than ten thousand dollars for each day of violation or imprisonment for not more than one year, or both.

**9. Are special containers required for collecting infectious waste prior to package for disposal?**

The Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standards and the SC Infectious Waste Management Regulations outline requirements for containers used for collecting infectious waste. For more comprehensive details see the links for these documents on page 1.

- Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are: closable; puncture resistant; leak proof on sides and bottom; and labeled or color-coded in accordance with OSHA standards. The container should be designed for the safe containment of sharps.
- Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.
- Labels shall include the following legend:



- These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.
- Red bags or red containers may be substituted for labels.
- Infectious waste, other than sharps, should be stored and maintained in a rigid or semi-rigid container that will not allow liquid in or out.
- Containers must be strong enough to resist bursting and tearing during handling and transport and must be able to be closed tightly and securely.
- Plastic bags used inside containers must be red or orange and of sufficient strength to prevent tearing.
- Reusable containers are acceptable but must be disinfected after each use.
- Waste should not be compacted before or during storage or transport.
- Containers must be sealed and closed tightly and securely when full by weight or volume or when putrescent.

### **10. How long can a sharps container be kept if it is not full?**

Sharps containers that are not full may be kept until the recommended capacity is reached as long as there is no odor from the container. If a container that is not yet full will be kept over a school break, the container should be secured in a location that will not be subject to excessive heat.

We recommend that each school choose a container size that coincides with its annual generation of infectious waste. This will help to alleviate the need to keep containers from one year to the next.

Sharps containers are considered "full" when contents fill  $\frac{3}{4}$  of the container. When the container is "full," follow the instructions in the Infectious Waste Storage, Transport, and Treatment Checklist to dispose of the container (See the Appendix for a copy of the check list and a summary of infectious waste requirements).

If the school is a small quantity generator the sharps container may be treated on-site and disposed of as regular solid waste.

See question twelve (12) for acceptable methods for disposing of infectious waste.

### **11. How must infectious waste be packaged during storage?**

Storage of infectious waste refers to how infectious waste must be maintained once the container has been sealed and is ready for disposal. Infectious waste "storage" begins when a container is closed and is awaiting treatment for disposal.

- While waste is being stored, it must be kept safe from insects and rodents, weather and leaking.
- If the waste is stored outside, the storage area must be locked.
- Access to storage areas must be limited to authorized personnel only.
- Storage areas must be labeled with the OSHA biohazard symbol.
- Waste cannot be stored onsite for more than 14 days; if kept at or below 42° Fahrenheit, waste cannot be stored more than 30 days.

- Waste should have no odor. If it begins to smell, it should be transported or treated and disposed of immediately.

## **12. What are some acceptable methods for treating and disposing of infectious waste?**

Infectious waste may be treated and disposed of by incineration, steam sterilization, chemical disinfection, or any other treatment method approved by the SC Department of Health and Environmental Control. After treatment the waste may be disposed of as any other waste if it is not subject to any other state or federal regulation.

Blood spills that can be absorbed in such a manner that the absorbent is not supersaturated with blood (i.e., drips when squeezed) can be discarded in the regular trash.

The type of infectious waste most often generated in school settings is sharps. Treatment and disposal of sharps may be accomplished via incineration, steam sterilization or chemical disinfection. Some disposal methods used by schools are described below.

### Chemical Disinfection

Disinfectants that are environmentally friendly should be used when possible. Chemical disinfection may be achieved by pouring an EPA registered disinfectant solution that is effective against Bloodborne Pathogens (Human Immunodeficiency Virus (HIV), Hepatitis B, and Hepatitis C) and Tuberculosis into the sharps container. The sharps in the container should be immersed in the disinfectant solution for the time period recommended by the manufacturer. The solution should then be carefully poured off and disposed of in a manner that is consistent with the manufacturer's instructions. The sharps container should then be sealed, indelibly labeled with the word "Treated" and the treatment date, and disposed of in the regular trash.

When choosing a solution for chemical disinfection, read the manufacturer's instructions and the material safety data sheet (MSDS) carefully (1) to ensure that it is effective against all of the required microbes and (2) to note safety precautions that must be observed. Adhere to all precautions noted. Some chemical disinfectants may come in formulations that are ready to use and in these forms may not have as many precautions as when diluting the chemicals on-site. Your school district's supplier for chemical cleaners may be able to assist you with choosing an appropriate chemical disinfectant.

Because the chemical disinfection process noted above requires pouring off the solution after the required immersion period, keep this process in mind when choosing sharps containers for the school district. Choose sharps containers that

will allow for safely pouring off the solution used during the chemical disinfection process without spilling the sharps from the container.

#### USPS Approved Medical Waste Companies

Some companies are approved through the United States Postal Service (USPS) to provide containers for collecting sharps and the appropriate packaging for mailing the containers back to the company for disposal once the container is full. Sharps mail-back programs are acceptable if the packaging used meets the requirements in the USPS Domestic Mail Manual.

The generator (e.g. the school) will need to list the mail-back company's name on the registration form when registering with DHEC as a waste generator. Remember, each school that generates infectious waste must register with DHEC. If a school has registered as a waste generator and later decides to use a mail-back program, the school must submit a revised registration form and include the company's name. DHEC will check to verify that the mail-back company's packaging is certified.

When using this method the medical waste company must mail a certification of disposal back to the school. The certification of disposal must be kept on file for two (2) years. Companies that provide these services may be located on the Internet or in phone books. You may also request a listing of USPS approved medical waste companies by sending an e-mail request to [PostalExplorer@usps.gov](mailto:PostalExplorer@usps.gov).

#### Medical Waste Transporters

School districts may choose to contract with a registered medical waste transport company to arrange pick up and disposal of sharps containers. When contracting with a medical waste company the district must adhere to the rules for transporting infectious waste outlined in question thirteen (13).

If the treatment and/or disposal method that your school is considering is not listed above, contact DHEC's Infectious Waste Program at the following address to ask for written approval:

Infectious Waste Program  
SC DHEC  
2600 Bull St.  
Columbia, SC 29201

### **13. May schools transport their infectious waste to a central location within the district or another facility for disposal?**

Yes. The United States Department of Transportation (U.S. DOT) regulates labeling of infectious waste (medical waste) during transport across roadways. The U.S. DOT regulations do not distinguish carriers of regulated medical waste by the amount of waste carried. Schools choosing to transport infectious waste to a central location must follow all U.S. DOT regulations. The central treatment and

disposal facility must be registered with the SC Department of Health and Environmental Control as an infectious waste generator. The generator fee for the central disposal facility will be based on the total combined waste disposed of at the facility.

- Containers being transported must have a clearly visible label attached that includes:
  - the biohazard symbol,
  - infectious waste program registration number, and
  - date the container was placed in storage or sent off-site, if not stored. (Note: Containers must be labeled at the time of storage.)
- Before waste can be transported, it must be manifested. This manifest must accompany waste at all times after leaving the generating facility. For a sample manifest, please see:  
<http://www.scdhec.gov/environment/lwm/forms/Infectious%20Waste%20Manifest.pdf>
- The manifest must include:
  - the generator's name, address and infectious waste program registration number,
  - a general description of the waste being shipped,
  - the number of containers and the weight or volume,
  - certification by the generator that the waste is packaged, described and labeled properly,
  - certification that the waste does not include hazardous or radioactive waste,
  - the name of the transporter,
  - the date the transporter picked up the waste, and
  - the date the treatment facility received the waste.
- At the time of pick-up or transport the manifest should include all of the information noted above except the date the treatment facility received the waste – this information will be noted at the time the waste is received by the treatment facility.
- Any vehicle transporting regulated medical waste must be labeled with the biohazard symbol approved by the Occupational Safety and Health Administration (OSHA) on all four sides.
- No more than fifty (50) pounds of waste may be transported at a time.
- Waste must not be transported in the passenger compartment of the vehicle.
- The manifest left at the time of pick-up should be retained for two (2) years. It may be retained as a paper copy or electronically.
- Infectious waste generators are required to have proof of treatment and retain it for two (2) years, either on paper or electronically. Generators must also have a record of the weight of the waste generated. This record must be obtained before pick-up, or within 50 days and may be on the manifest, but does not have to be.

**14. Will schools be inspected to assure that infectious waste is being disposed of properly?**

The SC Department of Health & Environmental Control may inspect infectious waste generator sites. For small quantity generators there is no routine inspection schedule. Large quantity generators are inspected approximately once every two years, or more often as necessary.

**15. What do inspections cover?**

When a Department of Health and Environmental Control infectious waste program inspector visits a facility, the inspector looks at the waste to verify that it is being stored, packaged and labeled properly and that it is not leaking or attracting rodents. The inspector verifies that large and extra large quantity generators have an infection control committee and written waste protocol that meets regulatory requirements. The inspector will examine the manifests to make sure that they are being filled out properly. The inspector will also verify that waste is not stored onsite more than 14 days or 30 days if refrigerated. (*"Storage" of infectious waste begins once a container is closed and is awaiting treatment for disposal.*)

**16. Must private/independent schools and charter schools adhere to DHEC's infectious waste disposal requirements?**

Yes.

If you have any questions regarding the content of this document, please contact one of the following DHEC Infectious Waste Program employees:

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**Infectious Waste Storage, Transport, and Treatment Checklist**  
Based on R.61-105-S.C. Infectious Waste Management Regulations

*Maintain a copy of this form for 2 years.*

Facility Name: \_\_\_\_\_

Generator Registration Number: \_\_\_\_\_

Print name of individual managing waste: \_\_\_\_\_

Signature of individual managing waste: \_\_\_\_\_

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**Please check or initial each item as completed.**

**For facilities treating waste and disposing of as solid waste:**

*(Please complete in the order noted below.)*

\_\_\_\_\_ Weight of waste: \_\_\_\_\_ lbs.

\_\_\_\_\_ Type of Treatment: \_\_\_\_\_

\_\_\_\_\_ Container closed securely

\_\_\_\_\_ Container labeled with the word 'Treated' and the date of treatment

\_\_\_\_\_ Container disposed of in trash – Disposal date: \_\_\_\_\_

**For facilities offering waste for transport and treatment:**

\_\_\_\_\_ Waste labeled with OSHA biohazard symbol sign

\_\_\_\_\_ Waste labeled with generator registration number

\_\_\_\_\_ Waste labeled with date storage began

\_\_\_\_\_ Weight of waste \_\_\_\_\_ lbs (may be weighed at facility or may obtain weight from transporter, must be obtained within 50 days of shipment).

\_\_\_\_\_ Manifest complete (See Section 12 or Summary for requirements).

\_\_\_\_\_ Manifest retained for 2 years, either paper copy or electronically

## **Infectious Waste Requirements-Summary from R. 61-105**

### **All Facilities:**

Sharps, microbiological cultures, products of conception, and human blood and blood products must be treated before disposal.

Record of weight of waste must be obtained at time of treatment or within 50 days of shipment.

A record of treatment must be maintained for 2 years after treatment including: the date and type of treatment, amount of waste treated, and the individual treating the waste.

If stored, waste must be in an area that allows access to authorized personnel only and is labeled with the OSHA biohazard symbol sign.

### **Facilities Offering Waste for Transport and Treatment:**

*Requirements under the "All Facilities" heading also apply.*

Once sealed, containers offered for transport must be labeled with: the OSHA biohazard symbol sign, the DHEC-issued generator registration number, and the date of storage (or transport, if never stored)

Waste must be offered to a transporter properly registered with the Infectious Waste Program.

Waste must be manifested, and the manifest must include: the name, generator registration number, and address of the generator, a general description of the waste, the number of containers of waste, the weight or volume of the waste, certifications by the generator, the name of the transporter, and the date the transporter accepted the waste.

### **Facilities Treating Waste and Disposing of as Solid Waste (in the Regular Trash):**

*Requirements under the "All Facilities" heading also apply.*

Disinfection should be by steam or chemical disinfection, following manufacturer or label instructions.

Once waste has been treated, indelibly label the container with the word 'Treated' and the date of treatment.

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Summary of Revisions:

- Additional guidance added to question #12 regarding USPS Approved Medical Waste Companies
- Web links updated
- Contact names changed

## **APPENDIX**