

John D. Rockefeller IV  
Governor



L. Clark Hansbarger, M.D.  
Director

# State of West Virginia

DEPARTMENT OF HEALTH  
CHARLESTON 25305

## NOTICE OF PUBLIC HEARING

Pursuant to Section eight, Article three, Chapter twenty-nine-A of the Code of West Virginia, one thousand nine hundred thirty-one, as amended, the Regulatory Services Program of the West Virginia Department of Health shall convene a public hearing at 1:30 P.M. on Thursday, March 18, 1982 in Capitol Conference Center, Room #E, 1900 Washington Street, East, Charleston, West Virginia for the purpose of taking evidence pertaining to the establishment of:

### Infectious Waste Regulations

Any citizen or other interested party may appear in person to present evidence. Any citizen or other interested party may submit written evidence to the West Virginia Department of Health, Regulatory Services Program, Room 416, 1800 Washington Street, East, Charleston, West Virginia 25305 not later than 5:00 P.M. Thursday, March 18, 1982.

The issues to be heard shall be limited to the actual information contained in the above mentioned regulations. Copies of the regulations may be obtained from the Regulatory Services Program, address heretofore appearing or by telephoning 304-348-2411.

  
L. Clark Hansbarger, M.D.  
Director

Entered February 16, 1982

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WEST VIRGINIA ADMINISTRATIVE REGULATIONS  
BOARD OF HEALTH

Infectious Waste Regulations

Chapter 16-1  
Series XI  
(1982)

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# Infectious Waste Regulations

## Chapter 16-1 Series XI (1982)

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WEST VIRGINIA ADMINISTRATIVE REGULATIONS  
BOARD OF HEALTH

Chapter 16-1  
Series XI  
(1982)

Subject: Infectious Waste Regulations

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Section 1. General

1.01. Scope - These regulations establish the rules and regulations of the West Virginia State Board of Health governing infectious waste handling, decontamination and disposal.

1.02. Authority - Pursuant to the authority conferred upon the State Board of Health by Chapter 16, Article 1, Section 7(6) of the West Virginia Code of 1931, as amended and further to the Health Director by Chapter 20, Article 5E, Section 7(d), the State Board of Health hereby establishes these regulations as the minimum requirements for infectious waste disposal systems and methods.

1.03. Filing Date - These regulations are promulgated on the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, and filed on the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, in the Secretary of State's office.

1.04. Effective Date - These regulations become effective on the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

Section 2. Supersession and Repeal of Former Regulations - All regulations previously adopted by the State Board of Health which are in conflict with the provisions of these regulations are hereby repealed.

Section 3. Application and Enforcement

3.01. Application - These regulations apply to all facilities which produce, treat, store, or dispose of hazardous wastes with infectious

characteristics as defined in Section 4 of these regulations.

3.02. Enforcement - Enforcement of these regulations is vested in the director of the West Virginia department of health or his designee.

Section 4. Definitions

4.01. Director - means the state director of health or his designee.

4.02. Etiologic Agent - means a type of microorganism, helminth or virus which may produce disease in humans, and includes class 3, 4, and 5 as established by the Center for Disease Control for bacterial, fungal, parasitic, viral, rickettsial and chlamydial agents.

4.03. Fomites - means inanimate objects contaminated with etiologic agents which may serve to transmit those etiologic agents to humans.

4.04. Infectious Waste - means any waste material or article which harbors or may reasonably be considered to harbor viable etiologic agents and shall include the following:

4.04.01. Significant laboratory wastes (which shall include cultures of etiologic agents).

4.04.02. Pathologic specimens (which shall include human or animal tissues, blood elements, excreta and secretions which contain etiologic agents) and attendant disposal fomites. (Human dialysis waste materials including arterial lines and dialysate membranes shall be considered infectious waste.)

4.04.03. Surgical specimens (which shall include human or animal parts and tissues removed surgically or at autopsy which contain etiologic agents) and attendant disposal fomites.

4.04.04. Equipment, instruments, utensils and other materials

of a disposable nature which may transmit etiologic agents from the rooms of humans or the enclosures of animals which have been isolated with suspected or diagnosed communicable disease.

4.04.05. Human bodies where death is due to a class 3 or higher etiologic agent, and the aspirated or purged wastes therefrom.

4.04.06. Carcasses of animals infected with etiologic agents which may present a substantial potential or existing hazard to public health.

4.04.07. Mutagent micro-organisms, occurring naturally or induced which possesses infectious characteristics.

4.05. Nothing in this section shall be construed as limiting the authority of the director to determine any waste as potentially infectious and require such waste to be managed as an infectious waste.

4.06. Wastewater and wastewater sludges which have been properly treated in a secondary treatment plant and stabilized shall not be considered infectious for the purposes of this regulation.

4.07. Sharps - means, but is not limited to, hypodermic needles, hypodermic syringes, blades and broken glass. For purposes of this regulation, sharps also include any devices, instruments or other objects which have acute rigid corners, edges or protuberances.

4.08. Pathological Incinerator - means an enclosed device for the thermal destruction of wastes with auxiliary fuel supplying not less than 8000 btu/lb of waste, equipped with auxiliary fueled secondary chamber of capacity to provide a minimum retention time of 2.2 seconds at a minimum

temperature of 1400°F, having a hearth of not less than 1/10 square feet area per lb/hr rated capacity to retain liquid renderings, and meeting emission standards of the Air Pollution Control Commission.

4.09. Crematorium - means a pathological incinerator of sufficient capacity for incineration of human bodies and the aspirated or purged wastes therefrom.

Section 5. Requirements for Procedures of Infectious Waste

5.01. Any owner or licensee of a health care facility in the category of general acute care hospital, acute psychiatric hospital, skilled nursing facility, intermediate care facility or intermediate care facility for the developmentally disabled, outpatient clinic which produces infectious waste, clinical laboratory, mortuary, or any other person who produces infectious waste shall handle, store and dispose of the infectious waste in accordance with the requirements of this regulation applicable to the producer of infectious waste, except for those requirements which are superseded, or from which the producer is exempted, by other provisions herein.

5.02. Any producer of infectious waste other than as required pursuant to subsection 5.01 of this section or as otherwise required by the director, shall be exempt from the provisions applicable to producers of infectious waste except for the provisions of Sections 6.07, 7.02, 7.03 and 7.05 of this regulation.

Section 6. Storage and Containment of Infectious Waste

6.01. The provisions of this section, insofar as infectious wastes are concerned, shall supersede other provisions pertaining to the storage of infectious waste.

6.02. Any facility which produces, stores, treats or disposes of infectious waste shall have an area for the storage of containerized infectious waste pending disposal. Storage shall be in a manner and location which precludes the transmission of disease or the creation of a nuisance and does not provide a breeding place or a food source for insects or rodents.

6.03. Infectious waste shall be segregated from other waste at the point of origin in the producing facility and shall be contained for storage and disposal in containers pursuant to the conditions prescribed in subsections below.

6.04. Infectious waste shall not be stored at a waste producing facility for more than four days before disposal unless approved by the director; except storage of infectious waste at a temperature below 23°F shall be permitted for a period of not more than 60 days before disposal without specific approval.

6.04.01. Specimens preserved in formaldehyde are exempt from this provision.

6.05. Storage of infectious waste shall be in an enclosure separate from other wastes unless storage with other wastes is approved by the director. Storage of infectious waste shall be in a covered room or other walled or screened enclosure affording protection from vermin, rain and wind or shall be so secured as to deny access to unauthorized persons. Storage areas shall include, but not be limited to, the following:

6.05.01. A concrete floor with perimeter curb, with drain or sump for collection and discharge of liquids to treatment or approved sewage treatment.

6.05.02. Prominent warning signs located on storage enclosures and containers on or adjacent to the exterior of entry doors, gates or lids indicating use of the enclosures or containers for storage of infectious waste and forbidding entry to unauthorized persons.

6.06. Infectious waste, except for sharps capable of puncturing or cutting, shall be contained for storage and disposal in double disposable plastic bags which are impervious to moisture and have a strength sufficient to preclude ripping, tearing or bursting under normal conditions of usage and of handling the waste-filled bags. Each bag shall be constructed of material of sufficient single thickness strength to pass the 165-gram dropped dart impact resistance test as prescribed by Standard D 1709--75 of the American Society for Testing and Materials. The bags shall be securely tied so as to prevent leakage or expulsion of solid or liquid wastes during storage, handling or transport. Sharps which have been crushed or otherwise processed so as to make them incapable of puncturing or cutting and which have not been rendered noninfectious shall also be contained for disposal in such bags or shall be contained as prescribed in subsection 6.07 below.

6.07. Sharps, including hypodermic needles or hypodermic syringes which shall have been rendered unfit for reuse and which have not been processed so as to make them incapable of puncturing or cutting shall be contained for disposal in disposable rigid puncture-proof containers such as cartons or metal cans which are taped closed or tightly lidded to preclude loss of the contents.

6.08. All bags used for storage and disposal of infectious waste

shall be red in color and conspicuously labeled with the words "Infectious Waste" or with the international biohazard symbol and the word "Biohazard". Rigid disposable containers of infectious sharps waste shall be labeled in the same way or placed and secured in the disposable bags used for other infectious waste.

6.09. Compactors or grinders shall not be used to reduce the volume of infectious waste until after the waste has been rendered noninfectious. Infectious waste in bags or other disposal containers shall not be subject to compaction by any compacting device and shall not be placed for storage or transport in a portable or mobile trash compactor.

6.10. Infectious waste contained in disposable containers as prescribed in subsections 6.06, 6.07 and 6.08 of this section may be placed for storage or for transport to a disposal facility in reusable plastic or metal pails or drums or in metal dumpsters or metal portable bins. These reusable containers shall be leakproof, rodent-proof, have tight-fitting covers and be kept clean and in good repair. Each dumpster or portable bin shall provide for suitable access to allow complete cleaning and sanitizing at the storage area or disposal facility, and drainage and treatment of liquids. The reusable containers may be of any color and shall be conspicuously labeled with the international biohazard symbol and the word "Biohazard" on the lid, and on the sides so as to be readily visible from any lateral direction when the container is upright in addition to placarding required by the Public Service Commission or the Department of Highways as appropriate.

6.11. Before being reused, rigid containers for infectious waste which have been visibly soiled with potentially infectious material shall be

decontaminated by agitation to remove visible soil combined with one of the following procedures:

6.11.01. Exposure to hot water of at least 180°F for a minimum of 15 seconds.

6.11.02. Exposure to chemical sanitizer by rinsing or immersion for a minimum of 30 seconds.

6.11.02.01. Hypochlorite solution (100 ppm available chlorine).

6.11.02.02. Combination chlorine-bromine solution (100 ppm available chlorine or bromine).

6.11.02.03. Iodoform or iodine (25 ppm available iodine).

6.11.02.04. Quaternary ammonium compound solution (200 ppm active agent).

6.11.02.05. Other method approved by the director in writing.

6.12. Infectious waste shall not be placed with noninfectious waste in a reusable container for either storage or transport unless all of the waste in the container is to be disposed of as infectious waste in accordance with the requirements of this regulation.

6.13. Reusable pails, drums, dumpsters or bins used for containment of infectious waste shall not be used for containment of waste to be disposed of as noninfectious waste or for other purposes.

6.14. Garbage chutes shall not be used to transfer infectious waste between locations where it is produced or stored unless approved by the director.

Section 7. Disposal of Infectious Waste

7.01. Disposal of infectious waste shall be by one or more of the following methods:

7.01.01. By incineration in a pathological incinerator. The owner-operator shall have a valid permit for the operation of the incinerator issued pursuant to the provisions of the Air Pollution Control Commission.

7.01.02. By burial at a hazardous waste landfill as designated and approved by the department of natural resources.

7.01.03. By discharge to a sanitary sewer through an on-site sewer appliance or other connection to a sewer system with secondary treatment and stabilization if the waste is liquid or semiliquid, provided that written approval has been obtained from the receiving sewer agency specifying the types and amounts of infectious waste.

7.01.04. By sterilization by heating in an autoclave so as to render the waste noninfectious. Infectious waste so rendered noninfectious shall be disposable as nonhazardous waste provided it is not an otherwise hazardous waste or hazardous material. Autoclave operating procedures shall include, but not be limited to the following:

7.01.04.01. Adoption of standard written operating procedures for each autoclave including time, temperature, pressure and maximum load quantity.

7.01.04.02. Check recording and/or indicating thermometers after and/or during each complete cycle to ensure

the attainment of a temperature of 250°F for approximately one hour (depending on quantity and compaction of load) in order to achieve sterilization of the entire load.

7.01.04.03. Use of heat sensitive tape or other device for each container that is processed to indicate the attainment of adequate sterilization conditions.

7.01.04.04. Use of bacteriological spore test culture placed at the center of a load processed under standard operating conditions at least monthly to confirm the attainment of adequate sterilization conditions.

7.01.04.05. Maintenance of records of procedures for a period of not less than one year.

7.01.05. At an out-of-state facility approved by the appropriate out-of-state authority.

7.02. Cultures of viable etiologic agents shall be rendered noninfectious before disposal by heating the cultures in an on-site autoclave or by other on-site sterilizing treatment. The sterilized cultures shall be disposable as nonhazardous waste.

7.03. Infectious waste consisting of recognizable human body parts or recognizable human fetuses of less than 20 weeks uterogestation shall not be disposed of by burial at a non-hazardous landfill disposal facility, but shall be disposed of by incineration or interment.

7.04. Ashes resulting from the incineration of infectious waste may be disposed of at a permitted non-hazardous type landfill.

7.05. Human bodies where death is due to a Class 3 or higher etiologic

agent shall not be released or delivered to any mortuary unless such mortuary has discharged access to a secondary sewage treatment plant with sludge stabilization, or a pathological incinerator for the destruction of aspirated or purged body wastes, or the aspirated or purged body wastes and liquids from such body are disposed in a pathological incinerator.

7.06. Other provisions herein notwithstanding, double-bagged wastes from isolation wards including disposable gowns, bed linens, food utensils and non-liquid items incapable of being sewerred, and triple bagged dressings may be disposed of in duly permitted non-hazardous landfills providing:

7.06.01. Such double and triple bagged infectious wastes shall not be commingled with non-infectious wastes.

7.06.02. Such properly permitted landfill owner-operator shall acknowledge written request for disposal of such infectious waste.

7.06.03. Infectious waste under this provision shall be delivered to the landfill at mutually acceptable predetermined times.

7.06.04. Landfill operating personnel shall be given oral and written instructions to place double bagged infectious waste at the bottom of the cell and cover said bags either with soil or sufficient non-infectious waste prior to performing any compaction.

#### Section 8. Transfer of Infectious Waste

8.01. Infectious waste shall be contained, loaded, transported and unloaded by methods and procedures which limit the number of persons handling

the waste and otherwise minimize the possibility of exposure of workers to the waste and which do not endanger public health and safety or cause a public nuisance.

8.02. For disposal or treatment of infectious waste at a licensed hazardous wastes disposal or treatment facility, the producer of the infectious waste shall transfer custody only to a hauler who is registered as a hazardous waste hauler by the department of highways or the public service commission.

8.03. Infectious waste shall be transported to an off-site disposal facility in a vehicle with a leakproof, fully enclosed storage compartment, except that infectious waste contained in rigid containers pursuant to Section 11 of this regulation may be transported in any vehicle affording security against loss of the reusable containers from the vehicle, escape of the contents from the reusable containers or removal of containers or their contents from the vehicle by unauthorized persons.

8.04. Infectious waste shall not be transported unless the infectious waste is separately contained in rigid, reusable containers or kept separate by barriers or unless all of the waste is to be disposed of as infectious waste in accordance with the requirement of this regulation.

8.05. Infectious waste shall not be unloaded and reloaded or transferred to another vehicle or stored at any off-site location or facility, except at a hazardous waste transfer station for which there is a valid and appropriate hazardous waste facility permit. At such a facility, the infectious waste shall be kept in a secured area separate from other wastes, and storage of infectious waste shall not exceed four days unless approved by

the director; except storage at a temperature below 23°F shall be permitted for a period of not more than 60 days before disposal without specific approval.

8.06. Persons manually loading or unloading containers of infectious waste on or from transport vehicles shall be provided by their employer with, and required to wear, protective gloves and other protective clothing, face shields and respirators as deemed necessary by the director.

8.07. Surfaces of transport vehicles and of reusable containers that have contacted spilled or leaked infectious waste shall be decontaminated before reuse by one of the procedures of Section 6.11.

8.08. Vehicles transporting infectious waste shall be identified on exterior panels with conspicuously displayed signs or decals in color contrasting with the background with the international biohazard symbol and the word "Biohazard".

Section 9. Infectious Waste Treatment and Disposal Facility Requirements

9.01. Any person who operates a facility where infectious waste is treated or disposed of shall have a valid and appropriate hazardous waste facility permit except that a hazardous waste facility permit shall not be required for operation of a health care facility treatment or disposal facility that is in any of the following categories:

9.01.01. An on-site pathological incinerator meeting the definition of Section 4.08.

9.01.02. A wastewater treatment facility having secondary treatment and sludge stabilization.

9.01.03. A steam sterilizer or autoclave located on-site of an

infectious waste producer operated according to procedures specified in Section 7.01.04 of this regulation.

9.02. The owner of a health care facility shall obtain a special permit from the director for the operation of one or more of the facilities in Section 9.01 above. The applicant shall certify the health care facility is duly licensed and shall submit the following:

9.02.01. Name and address of the facility and the owners.

9.02.02. A listing or classification of infectious waste(s) and quantities for each disposal or treatment method.

9.02.03. The procedure(s) to be followed for operating an incinerator(s) or autoclave(s).

9.02.04. The make, model and capacity of any incinerator(s) or autoclave(s).

9.02.05. In the case of disposal by sewerage, written acknowledgement from the receiving sewer authority of the types, classes and amounts of each waste expected.

9.02.06. Certification that the provisions of this regulation will be complied with for treatment or disposal of infectious wastes.

9.03. The personnel, equipment and method of operation for a facility where infectious waste is treated or disposed of, other than a facility in a category specified in Section 9.01 above, shall have a permit and be in compliance, insofar as applicable to infectious waste, with the requirements for a hazardous waste treatment or disposal permit. The operator of said facility shall have and shall adhere to an operating plan for the handling

and disposal of infectious waste approved in writing by the director which shall include the following requirements:

9.03.01. A method of receiving wastes which ensures that infectious wastes are handled separately from other wastes until treatment or disposal is accomplished and which prevents unauthorized persons from having access to or contact with the waste.

9.03.02. A method of unloading and processing of infectious wastes which limits the number of persons handling the wastes and minimizes the possibility of exposure of employees and of the public using or visiting the facility to infectious waste.

9.03.03. If disposal is by burial at a landfill disposal facility, a method for immediate burial of the infectious waste in the disposable containers with cover material of soil or other solid waste prior to compaction to ensure that equipment or persons are not contaminated by infectious waste by subsequent compaction and covering operations.

9.03.04. If disposal is by a method other than burial, a method of operation that provides for and ensures that the infectious waste will be processed within four days of receipt at the facility unless otherwise approved by the director; except that storage at a temperature below 23°F shall be permitted for a period of not more than 60 days without specific approval.

9.03.05. A method to ensure that, in landfill disposal, land-

fill cells or trenches containing infectious waste are covered with a minimum six-inch depth of compacted soil at the end of the working day.

9.03.06. A method of decontaminating emptied reusable infectious waste containers, transport vehicles or facility equipment which are known or believed to be contaminated with infectious waste by the use of procedures specified in Section 6.11, and means for collecting and treating wash liquids.

9.03.07. The provision and required use of gloves and other protective clothing and of face masks or respirators as deemed necessary by the local health officer or the Department to provide protection of employees against exposure to infectious waste. Soiled protective gear shall be disposed of at the facility or decontaminated by the methods of Section 6.11.

9.03.08. A means of decontamination of any person having had bodily contact with infectious waste while transporting the waste to the treatment or disposal site or while handling or disposing of the waste at the site.

9.03.09. Provision for disposal of the ashes of incineration or sterilized waste material at a permitted non-hazardous type waste landfill.

9.03.10. A means for collecting and treatment of wash liquids resulting from section 9.02.06, .07 or .08 above.

9.04. A new or revised operating plan for treatment or disposal of infectious waste shall be submitted for approval to the director whenever

there is a substantial increase in volume of infectious waste received at the facility or when substantial changes are to be made in an existing operating plan.

9.05. Approval for acceptance of infectious waste at a treatment or disposal facility may be withdrawn at any time by the director for noncompliance with the operating plan.

9.06. Nothing in this regulation shall operate to prevent a health care facility pursuant to Section 9.01 from treatment or disposal of infectious waste from another health care facility provided the receiving facility submits or amends its application for permit to certify capability or properly treating or disposing the received wastes and the donor facility certifies the types, amounts and means of transport and agree to any special conditions stipulated by the receiving facility or the director. The provisions of Section 11.03 shall apply to the transportation of infectious waste under this section.

#### Section 10. Recordkeeping

10.01. The operator of a disposal facility subject to the requirements of Section 9 shall maintain records of infectious waste received at the facility for a period of 3 years, except that the operator of a facility in a category specified in Section 9.01 of this regulation shall be exempt from all requirements of this section.

#### Section 11. Manifest Requirements for Infectious Waste Transport and Disposal

11.01. The hazardous waste manifest prescribed by the department of highways or the public service commission as appropriate shall be used for the off-site transport and disposal treatment of infectious waste to a

hazardous waste disposal or treatment facility and shall be completed and utilized by the producer, hauler disposal or treatment facility operator except that the producer shall be exempt from compliance with these requirements if the provisions of subsection 11.02 of this section are complied with by the hauler.

11.02. A hazardous waste hauler who hauls for off-site disposal or treatment at a hazardous waste disposal or treatment facility from one or more producers of infectious waste may, with each producer's written authorization and instructions, complete the producer and hauler section of the manifest for each load of infectious waste delivered to a disposal facility, naming the hauler as producer. The hauler shall dispose of the infectious waste in accordance with each waste producer's instructions and shall submit each month to the director a legible copy of each manifest used during the previous month, along with a list of the names and addresses of the facilities from which the infectious wastes were hauled.

11.03. These provisions shall not apply for transport of infectious waste for the purposes of Section 7.06 nor to facilities under Section 9.02.

## Section 12. Inspections

12.01. Representatives of the director shall have access to the premises and records of infectious waste producers, transporters, treatment and disposal facilities to check with compliance with this regulation or to investigate complaints.

## Section 13. Penalties

13.01. As provided by 20-5E-15(b) and (c), any person who knowingly violates any provision of this regulation shall be guilty of a misdemeanor

and upon conviction thereof shall be fined not to exceed twenty-five thousand dollars, and upon a second or subsequent violation shall be guilty of a felony and upon conviction shall be confined to the penitentiary not less than one year nor more than three years or fined not more than fifty-thousand dollars for each day of violation or both such such fine and imprisonment.

13.02. As provided by 20-5E-16, any person who violates any provision of this regulation, or permit, rule or order pursuant to this regulation shall be subject to a civil penalty not to exceed twenty-five thousand dollars for each day of such violation, such penalty to be recovered in a civil action in the circuit court of the appropriate county.

Section 14. Administrative Due Process - Those affected persons desiring a public hearing shall do so in a manner prescribed in and by the West Virginia Rules of Procedure, West Virginia Board of Health, Chapter 16-1, Series I and further identified as Rules of Procedure for Contested Case Hearings and Declaratory Rulings. The aforementioned rules of procedure are incorporated herein by reference.

Section 15. Severability - If any provision of these regulations or the application thereof to any person or circumstance shall be held invalid, such invalidity shall not affect the provisions or applications of these regulations which can be given effect without the invalid provisions or application, and to this end the provisions of these regulations are declared to be severable.