

MEDICAL WASTE DISPOSAL POLICY

EFFECTIVE DATE: January 31, 1991

REVISED DATE: April 1, 2008

I. AUTHORITY TO ESTABLISH DISPOSAL POLICY:

The authority by which the Municipality of Anchorage, Solid Waste Services (SWS) Department establishes disposal policies and procedures and conducts disposal operations is contained within the Anchorage Municipal Code and the State of Alaska Department of Environmental Conservation's Solid Waste Management Regulations, 18 AAC 60, as amended through Sept. 7, 2002.

II. PURPOSE:

The purpose of the **MEDICAL WASTE DISPOSAL POLICY** is to protect SWS' workers, the public and the environment from exposure to pathogens which could cause diseases. Indiscriminate disposal of infectious wastes in garbage may potentially expose refuse workers to diseases. Since package integrity cannot be ensured during collection and land filling, loss of containment may result in releasing infectious wastes into the environment, endangering the SWS' workers, the public and the environment itself.

III. APPLICABILITY:

This policy applies to any private or public medical, dental or veterinary clinic, office, facility, laboratory, hospital or service within the Municipality of Anchorage which generates, collects or processes medical waste with the intent of disposing the waste at the Anchorage Regional Landfill (ARL). Specific medical wastes generated from within the private home environment by the individual homeowner or by a commercial in-home health care service is addressed separately in Section VII of this policy. Ordinarily, waste material that is generated ONLY within the Municipality of Anchorage is accepted for disposal at the ARL. Medical waste material that has been generated outside of the Municipality of Anchorage, and processed within the Municipality, may on a case by case basis, and as determined by the Medical Waste Project Administrator (907-343-6262, Fax 907-561-1357, e-mail wws@ci.anchorage.ak.us), be accepted at the ARL. It is requested that a processor who desires to process medical waste generated outside the Municipality of Anchorage with the intent to dispose of the processed waste in the ARL, contact SWS at the above number before proceeding.

IV. GENERAL POLICY:

Medical wastes shall not be disposed of at the ARL until they have been **EFFECTIVELY TREATED**, that is, rendered biologically harmless in accordance with acceptable treatment practices as described in this policy or current industry standards and methods and the wastes do not pose other hazards subject to Municipal, State or Federal laws or regulations. Effectively treated medical wastes will be disposed of only at the ARL, located at the Glenn Highway and Hiland Road. No medical waste, except that which is generated by the individual homeowner within the private home environment, will be accepted at the SWS' Central Transfer Station, located at 1111 East 56th Avenue in Anchorage, or the Girdwood Transfer Station, located on Ruane Road in Girdwood.

V. DEFINITION OF MEDICAL WASTE:

For the purpose of this policy, SWS embraces the definition of MEDICAL WASTE as defined in ADEC Solid Waste Management, 18 AAC 60, as amended through Sept. 7, 2002, page 111, definition number (78):

" 'medical waste' means laboratory waste consisting of discarded cultures and stocks of infectious agents and associated microbiologicals; pathological wastes; selected isolation wastes; used and unused discarded sharps; animal waste; human blood, or blood products; and other wastes defined as 'regulated waste' in 29 C.F.R. 1910.1030(b), revised as of Sept. 7, 2002."

- A. **ANIMAL WASTES:** Discarded material originating from an animal inoculated with an infectious agent during research, production of biologicals, or pharmaceutical testing; includes the carcass, body parts, blood, and bedding of any animal known to have been in contact with an infectious agent [ADEC Solid Waste Management, 18 AAC 60, as amended through Sept. 7, 2002, page 105, definition number (10)].
- B. **BLOOD AND BLOOD PRODUCTS:** Discarded waste human blood and blood components, including serum and plasma, and materials containing free-flowing blood and blood components [ADEC Solid Waste Management, 18 AAC 60, as amended through Sept. 7, 2002, page 106, definition number (23)].
- C. **CULTURES AND STOCKS:** Discarded cultures and stocks of infectious agents and associated microbiologicals, including human and animal cell cultures from medical and pathological laboratories, cultures and stocks of infectious agents from research and industrial laboratories, waste from the production of biologicals, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, or mix cultures of infectious agents [ADEC Solid Waste Management, 18 AAC 60, as amended through Sept. 7, 2002, page 107, definition number (35)].
- D. **PATHOLOGICAL WASTES:** Discarded pathological waste, including human tissues, organs, and body parts removed during surgery, autopsy, or other medical procedures [ADEC Solid Waste Management, 18 AAC 60, as amended through Sept. 7, 2002, page 112, definition number (93)].
- E. **SELECTED ISOLATION WASTE:** Discarded waste material that is contaminated with excretions, exudates, and secretions from patients with highly communicable diseases, and that is treated in isolation, includes blood and blood components, and sharps [ADEC Solid Waste Management, 18 AAC 60, as amended through Sept. 7, 2002, page 115, definition number (123)].
- F. **SHARPS:** Discarded implements or parts of equipment used in animal or human patient care, medical research, or industrial laboratories, including hypodermic needles; syringes, Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, broken or unbroken glassware that has been in contact with an infectious agent, slides, cover slips, and unused, discarded implements or parts of equipment [ADEC Solid Waste Management, 18 AAC 60, as amended through Sept. 7, 2002, page 116, definition number (127)].

VI. ACCEPTABLE TREATMENT METHODS OF MEDICAL WASTE:

An acceptable treatment method is any technique or process designed to change the biological character or composition of medical waste so that it is no longer infectious or otherwise biologically hazardous. The most commonly accepted treatment methods are incineration and active steam sterilization. Use of other treatment methods, including chemical disinfection, microwave radiation sterilization and thermal inactivation, are either quite specific or unique in their applications and as such will require case-by-case prior review and written approval by the SWS before such treated waste will be accepted for disposal at the

ARL. Regardless of the method of sterilizing used, it is important for the treatment operator to be fully aware that successful sterilizing treatment requires a thorough understanding that conditions for sterilization vary with load type and operating conditions.

- A. INCINERATION is the process of burning the medical waste at high temperatures in a controlled environment to convert the combustible materials to noncombustible residue or ash. Incinerators which are properly designed, constructed, maintained and operated can be used for processing all medical waste categories.
- B. ACTIVE STEAM STERILIZATION is the process of subjecting medical wastes to the pressures and temperatures of saturated steam inside a pressure vessel (autoclave, retort or steam sterilizer). Temperatures are maintained at the manufacturer's designed levels and time, normally at 250° F (121° C) for a minimum of 90 minutes, in order to kill infectious pathogens in the waste. It is the generator's responsibility to ensure the sterilization process is operated according to accepted or manufacturer's procedures. The generator shall perform appropriate testing and records keeping to fully document effective sterilization has occurred. Solid Waste Services will **not** accept the use of active steam sterilization as a means of treating the following waste categories:
1. Pathological waste;
 2. Blood, feces, urine and/or other body fluids in the free liquid state;
 3. Chemical waste, including chemotherapeutic wastes; or
 4. Hazardous wastes.

Active steam sterilization is an acceptable means of treating sharps, sharps containers, laboratory cultures and specimens and their containers, tubes, dishes and slides, **provided these items are rendered non- recognizable either through the treatment process such as melt down of the item, or after being treated such as grinding of the item, but before disposal at the Anchorage Regional Landfill.** The methods of rendering these items non recognizable after having been sterilized can vary. For example, crushing and breaking the sterilized items in a compactor system, encasing the sterilized items within a hardened plaster or polymer resin mixture, processing the sterilized items through a grinding system or incineration are all acceptable methods of making these items non recognizable for disposal at the ARL. If the waste generator has other means of achieving this objective, SWS requests the generator submit documentation of the methodology for SWS review and approval prior to use for disposal.

C. APPROVED ALTERNATIVE TREATMENT METHOD FOR LIQUID BIOMEDICAL WASTE:

PREMICIDE™ TREATMENT SYSTEM (PTS)

The use of the Premicide™ Treatment System (PTS) is approved for the treatment of liquid biomedical wastes only prior to disposal at the Anchorage Regional Landfill. This approval for use is contingent on the following:

1. Generators of liquid biomedical waste who intend to use the PTS for treatment of this particular waste will advise the Solid Waste Services Department in writing of their proposed use of the PTS.
2. This system is to be used for the on-site treatment of liquid biomedical wastes. It is not to be used to treat any non-liquid wastes, pathological wastes (recognizable human tissues), chemotherapy wastes, or radioactive wastes.
3. Free liquids must not be present in waste treated with the PTS. If free liquids are present after processing, the waste is considered to be untreated waste.
4. The liquid biomedical wastes treated with the PTS must be kept on-site for a minimum of 12 hours after treatment to achieve the appropriate Log-Kill prior to disposal at the Anchorage Regional Landfill.

5. The users of PTS for the treatment of will be prepared to produce, at the written request of the Solid Waste Services Department, Toxicity Characteristic Leaching Procedure (TCLP) analyses for primary metals, organics, acid extractables, base neutrals, pesticides, and herbicides. The costs for these analyses shall be borne by the PTS user.

Liquid biomedical waste once treated with PTS becomes a solid and will be considered as solid waste. It should not be contained in "red" or "orange" bio-hazard bags and should not bear the bio-hazard symbol or otherwise be identified as bio-hazardous waste. It will, however, be disposed of ONLY at the ARL.

VII. PACKAGING OF TREATED MEDICAL WASTES FOR DISPOSAL:

- A. The Alaska Department of Environmental Conservation Regulation, 18 AAC 60.030. MEDICAL WASTE., as amended through Sept. 7, 2002, states "a person who disposes of a medical waste shall before disposal, (1) disinfect or sterilize, and then package it to prevent a health hazard;". No medical waste may be disposed of in the ARL unless the waste has been effectively treated, rendered noninfectious and properly packaged for disposal.
- B. The residue or ash from incinerated medical waste shall be contained in leakproof, fully enclosed and tightly lidded or sealed containers. Loose residue and ash will not be accepted or disposed in the ARL. This restriction is to prevent ash from being blown about the landfill and to reduce the fire potential of disposing "hot" residue and ash.
- C. The medical waste to be sterilized by active steam autoclaving shall be processed in opaque polyethylene disposable autoclave bags of a minimum 3 mil thickness. The bags shall have heat sensitive markings that change color when exposed to a sterilization temperature for a given time period. The markings will be easily and clearly discernible. Unless specifically approved for such use by the sterilization unit's manufacturer, compactors, grinders or similar devices may not be used to reduce the volume of medical waste before the waste is to be rendered noninfectious by steam sterilization. The use of these devices to reduce the volume of effectively treated waste is acceptable.
- D. Effectively treated medical waste will be disposed of only at the ARL. No medical waste, except that which is generated from within the private home by the individual home owner, will be accepted at the Central or Girdwood Transfer Stations. The generator of the effectively treated medical waste is ultimately responsible for ensuring it will be disposed of at the ARL. The waste will be transported in a leak proof, tightly sealed, fully enclosed container; the container will **NOT** be taken to the Central or Girdwood Transfer Stations for off loading.

VIII. DISPOSAL PROCEDURES FOR MEDICAL WASTES AT THE ANCHORAGE REGIONAL LANDFILL

- A. Effectively treated medical waste will be disposed of only at the ARL. No medical waste, except that which is generated from within the private home by the individual homeowner, will be accepted at the Central or Girdwood Transfer Stations. The generator of the effectively treated medical waste is ultimately responsible for ensuring it will be accepted for disposal at the ARL.
- B. The medical waste will be transported in leak proof, tightly sealed, fully enclosed container; the container will **NOT** be taken to the Central or Girdwood Transfer Stations for off loading.
- C. No medical waste will be accepted at the ARL after 4:30 P.M.

- D. Upon arriving at ARL, Haulers of wastes from a medical facility will announce to the ARL Scalehouse Attendant the following information:
1. The name of the medical facility that generated the waste; and
 2. The general content of the hauler's load, i.e., treated medical waste, or general Municipal solid waste.
- E. Failure to comply with the disposal procedures A through D above will result in the load being refused disposal privileges at the ARL.

IX. MEDICAL WASTES GENERATED WITHIN THE PRIVATE HOME:

- A. Medical wastes generated within the private home are not specifically addressed by the applicable regulatory agencies. It is not the intent of this policy to attempt to regulate **ALL** medical wastes generated from within the private home environment. The individual home owner or the assisted living support provider who generates in the home environment certain medical wastes is, however, responsible to ensure that waste is properly handled, containerized and, if required, effectively treated prior to disposal. The wastes of primary interest are sharps, such as lancets, syringes and needles used in the home to control diabetes, allergies or any other medical conditions; home care medical wastes associated with infectious diseases; and medical wastes generated from in-home health care which is provided by a commercial service.
- B. Used and unused sharps discarded by the individual home owner should be disposed in an appropriate sharps container that is puncture resistant, leak proof and able to be tightly sealed to prevent the sharps from spilling. Sharps collector containers suitable for home use are available from most medical supplies outlets in Anchorage. No sharps should be thrown directly into the household's garbage, they should first be properly containerized or effectively treated. Incineration services for this purpose are available to the Anchorage home owner. Information about these services is available from the person's private physician, the local telephone book, as well as the local and state health departments.
- C. Medical wastes generated as a result of providing home care of persons with infectious diseases such as hepatitis B, hepatitis C or positive HIV should not be discarded into the household garbage. These wastes should be sealed in leak proof plastic containers and transported to an incineration service to be effectively treated. As with household generated sharps, incineration services for this purpose are also available to the Anchorage home owner.
- D. Medical wastes generated through a commercial in-home health care service should not be discarded into the household garbage. The entity providing the in-home health care service is responsible for the effective treatment and proper disposal of any medical wastes generated from that service.

X. OTHER REQUIREMENTS:

- A. Solid Waste Services Department points of contact are:
1. Solid Waste Services Administration Tel.: 343-6262, FAX: 561-1357, e-mail – wwwsws@ci.anchorage.ak.us .
 2. Disposal fees and billing procedures questions are to be referred to Customer Service - 343-6250.

3. Anchorage Regional Landfill General Foreman - 428-0864 or 428-1027, FAX 428-1697.

B. All other requirements applicable for solid waste disposal - covered loads, hours, fees, etc. - shall apply.