

Successful Biohazardous Medical Waste Management: Regulations and Technologies

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Enforcement Unit



Overview of Today's Presentation

1. Definitions (A.A.C R18-13-1401)
2. Proper Packaging of Biohazardous Medical Waste
3. Proper Storage of Biohazardous Medical Waste
4. Treatment of Biohazardous Medical Waste
 - Onsite
 - Offsite
5. Document Tracking Requirements
6. Biohazardous Medical Waste Transporters
7. New Technologies for Onsite Biohazardous Medical Waste
8. Questions



Target Audience

- Emergency Medical Services
- Medical Service Providers
- Veterinary Service Providers
- Assisted Living Facilities
- Tattoo and Body Modification Businesses
- Trauma Clean-up Service Providers
- Human and Animal Research Facilities
- Biohazardous Medical Waste Transporters
- In Home Nursing Care



Before We Start

All the Rules and Regulations are referenced from the
Arizona Administrative Code

Title 18. Environmental Quality

Chapter 13. Solid Waste Management

Article 14. Biohazardous Medical Waste and Discarded Drugs Section 1
through 20

R18-13-1401 through R18-13-1420

apps.azsos.gov/public_services/Title_18/18-13.pdf



Definitions

AAC R18-13-1401 Definitions

What is Medical Waste?

- “Medical waste,” as defined in A.R.S. § 49-701, means *“any solid waste which is generated in the diagnosis, treatment or immunization of a human being or animal or in any research relating to that diagnosis, treatment or immunization, or in the production or testing of biologicals, and includes discarded drugs but does not include hazardous waste as defined in A.R.S. § 49-921 other than conditionally exempt small quantity generator waste.”* AAC R18-13-1401 (21)



Medical Waste Examples

- Blood and urine samples that are tested for diagnosis and/or treatment of humans or animals
- Gloves, gauze, masks
- Medical equipment
- Needles
- Test slides
- Growth media including stocks and cultures



What makes it Biohazardous Medical Waste

- Biohazardous medical waste is composed of one or more of the following:
 - Cultures and stocks
 - Human blood and blood products
 - Human pathological wastes
 - Medical sharps
 - Research animal wastes
 - Tattoo and body modification waste
 - Trauma scene waste



Cultures and Stocks Defined

- Discarded cultures and stocks generated in the diagnosis, treatment or immunization of a human being or animal or in any research relating to that diagnosis, treatment or immunization, or in the production or testing of biologicals.
- Examples:
 - Cultures used to grow microbial organisms to determine strains
 - Drug development and production
 - Agar/Petri dishes
 - Remaining media after analysis by medical diagnostic machine
- Rule of Thumb: If you are trying to make something grow to test for diagnosis, the culture/stock would be considered biohazardous medical waste.



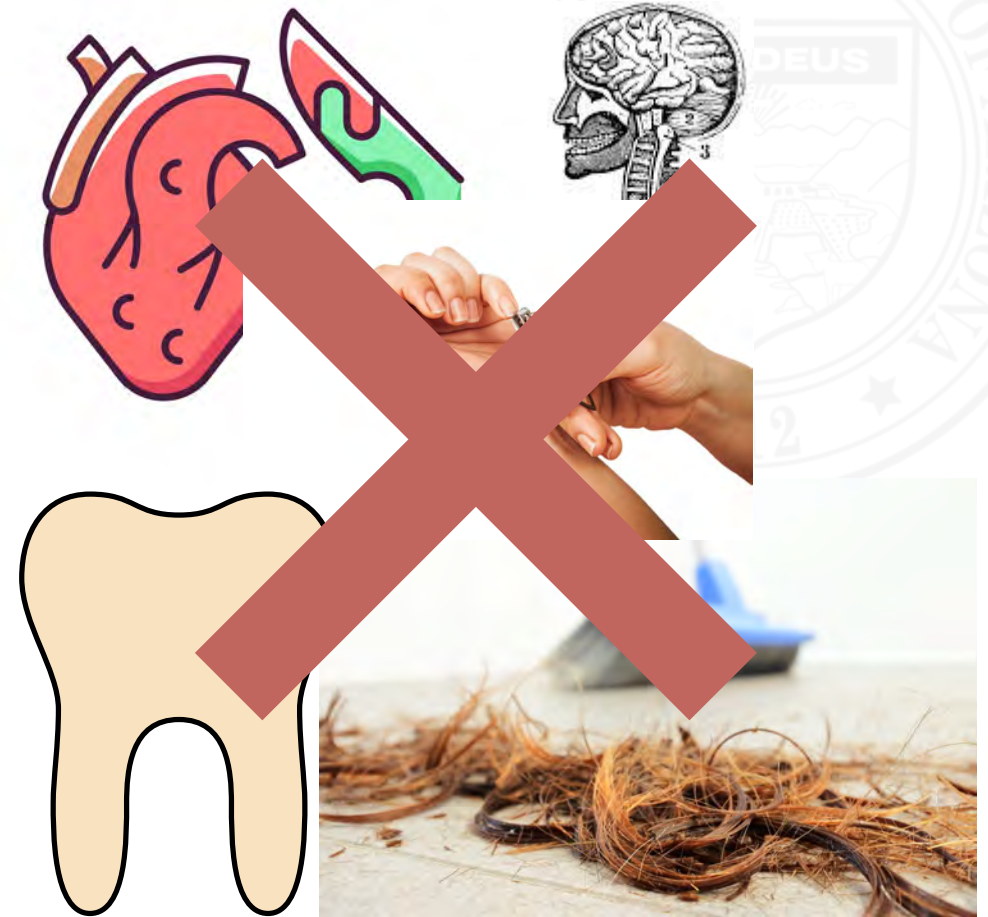
Human Blood and Blood Products

- Discarded products and materials that are saturated and/or **dripping with human blood or caked with dried human blood**, including items that would release blood in a liquid or semi-liquid form if compressed or broken, and items that contain serum, plasma, and other blood components.
- An item would be considered caked if it could release flakes or particles when handled.
- Examples:
 - Saturated Bandages
 - Blood Vials
 - Surgical Equipment



Human Pathological Wastes

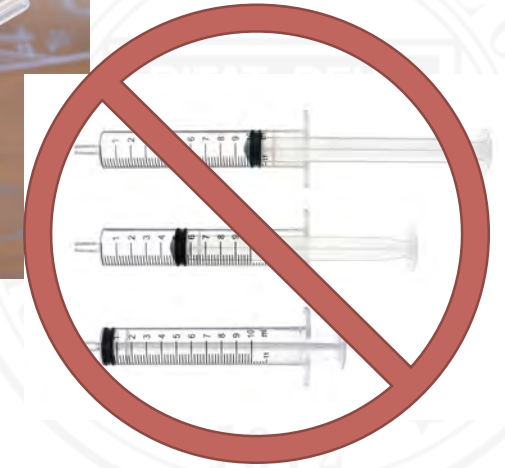
- Discarded organs, tissues, and body parts, including cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid and amniotic fluid, removed during surgery or other medical procedures, including autopsy, obstetrics, or emergency care.
- **Human pathological wastes do not include the head, spinal column, hair, nails, or teeth.**



Medical Sharps

- Discarded sharps that pose a stick hazard that have come into contact with blood, blood products, or pathological waste.
 - Examples include hypodermic needles; scalpel blades; broken glass with dripping/caked blood and needles attached to tubing or syringes.
- **Does not include:**
 - Syringes that have never had a needle (sharp) attached.
 - Syringes where a needle has been separated from the syringe.
 - Pipettes, unused blood vials, clean broken and unbroken glassware, slides and coverslips.*
- Rule of thumb: If it can easily break skin its considered a sharp.

*see next slide



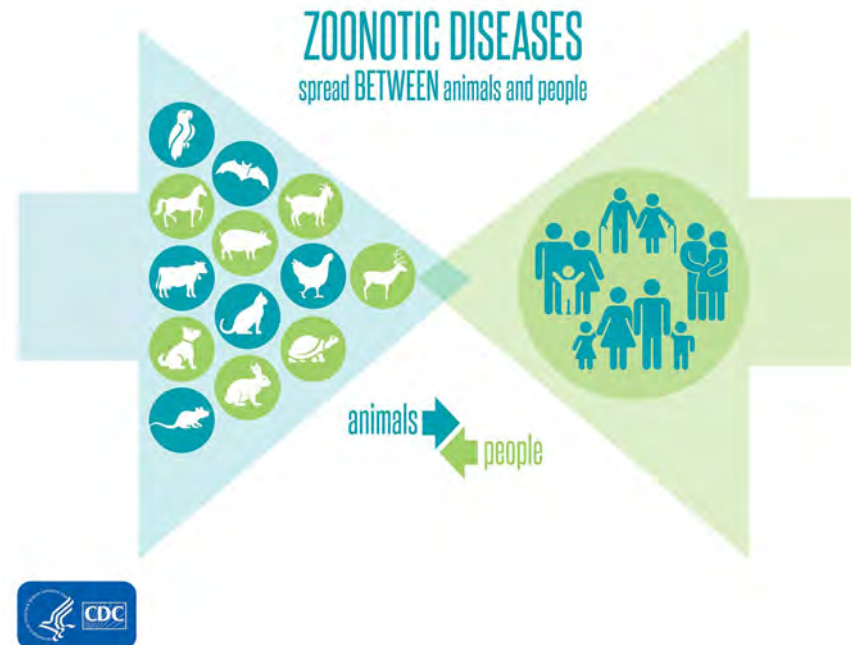
Is Glass Considered Medical Sharp?

- In most cases glass, both broken and unbroken, is not a medical sharp.
- There are a few exceptions:
 - Glass that contained another biohazardous medical waste ([Slide 8](#)).
 - Glass that is caked in blood due to an injury or for diagnosis (glass slide).
 - Glass bottles that use to contain chemotherapy drugs ([Slide 45](#)).
- Even though most glass is not a medical sharp, it should not be placed in general municipal trash bins, instead it should be put in one time use cardboard boxes.



Research Animal Wastes

- Animal carcasses, body parts, and bedding of animals that have been infected with agents that produce, or may produce, human infection.



Tattoo and Body Modification Waste

- Any waste generated during the course of physically altering a human being, including tattooing, ear piercing, or any other process where a foreign object is used to cut or pierce the skin.



Trauma Scene Waste

- Any crime scene, accident, or trauma clean-up wastes generated by individuals or commercial entities hired to clean.
- Does not include materials that would be considered a Hazardous Waste as defined in A.R.S. § 49-921.



Important Notes

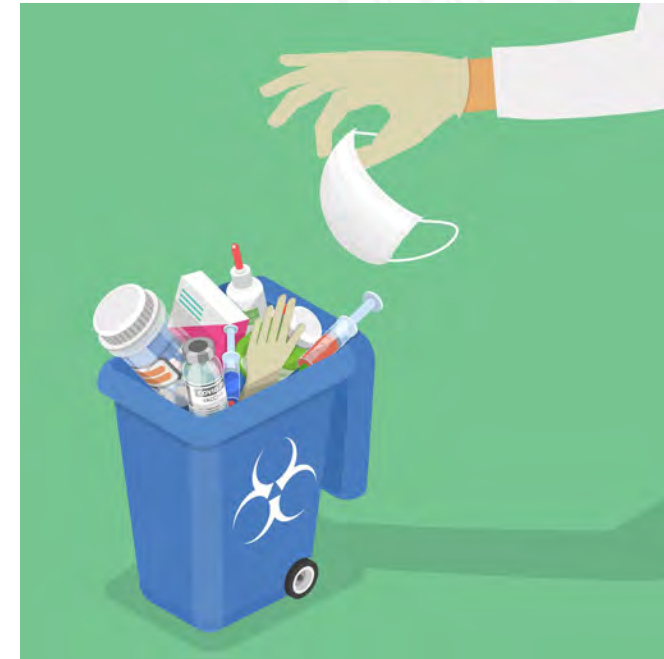
- Not all medical waste is considered **Biohazardous Medical Waste**.
- Not all **Biohazardous Medical Wastes** are generated during medical procedures for example crime scene clean up or tattoos.
- **Biohazardous Medical Waste** is also generated in research of humans and animals.
- As the generator it is your responsibility to determine if your waste is **Biohazardous Medical Waste**, but ADEQ is happy to provide guidance!





Who is a Generator?

- “Generator” means a person whose act or process produces Biohazardous Medical Waste, or a discarded drug, or whose act first causes medical waste or a discarded drug to become subject to regulation.



In Other Words...

- A generator is someone who generates medical/biohazardous waste in the process of daily activities.
- Generators include:
 - Doctor offices
 - Vet clinics
 - Research facilities
 - Tattoo artists/aestheticians
 - Medical schools
 - Drug development and testing



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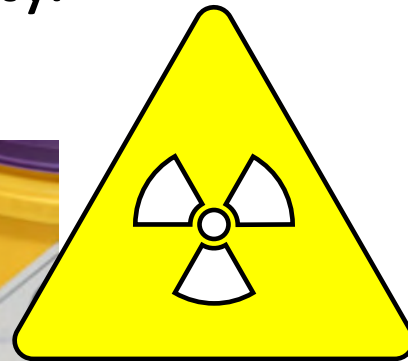
Exceptions

- Waste generated at a residence (not including group homes) does not require separation of biohazardous medical waste from municipal waste.
 - It is highly encouraged that residential sharps be placed in a non-penetrable container with a closed lid, those containers can be disposed of with the municipal waste.
- Waste generated by law enforcement personnel handling biohazardous medical waste for law enforcement purposes.



Exceptions cont.

- Medical waste that is regulated by a state or federal agency due to its radioactive nature. (Regulated by Arizona Department of Health Services)
- A person in possession of human bodies regulated by A.R.S. Title 36 Public Health and Safety.

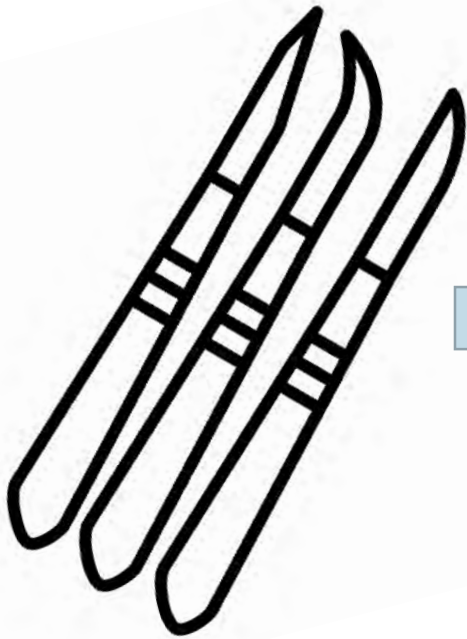


ARIZONA DEPARTMENT
OF HEALTH SERVICES



Conditionally Exempt

- A person who prepares human corpses, remains, and anatomical parts that are intended for interment or cremation. **However, medical sharps must be disposed of as prescribed by this A.A.C R18-13-1419.**



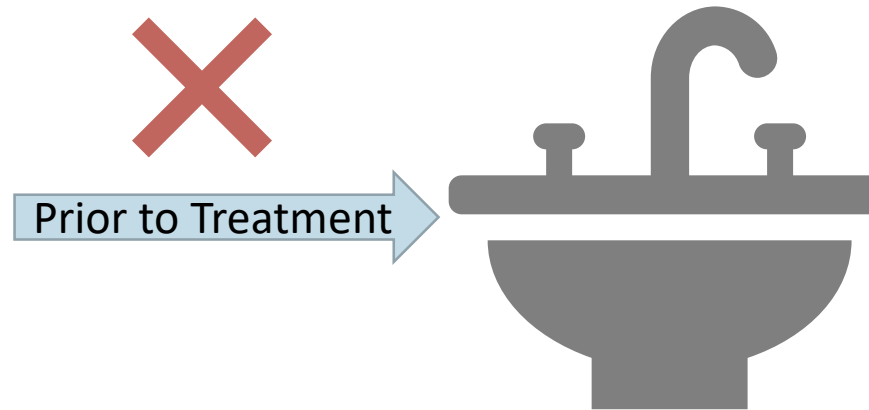
Conditionally Exempt cont.

- A person who operates an emergency rescue vehicle, an ambulance, or a blood service collection vehicle in the course of providing medical services **if the biohazardous medical waste is returned to the home facility for disposal.** This facility is considered to be the point of generation for packaging, treatment, and disposal.



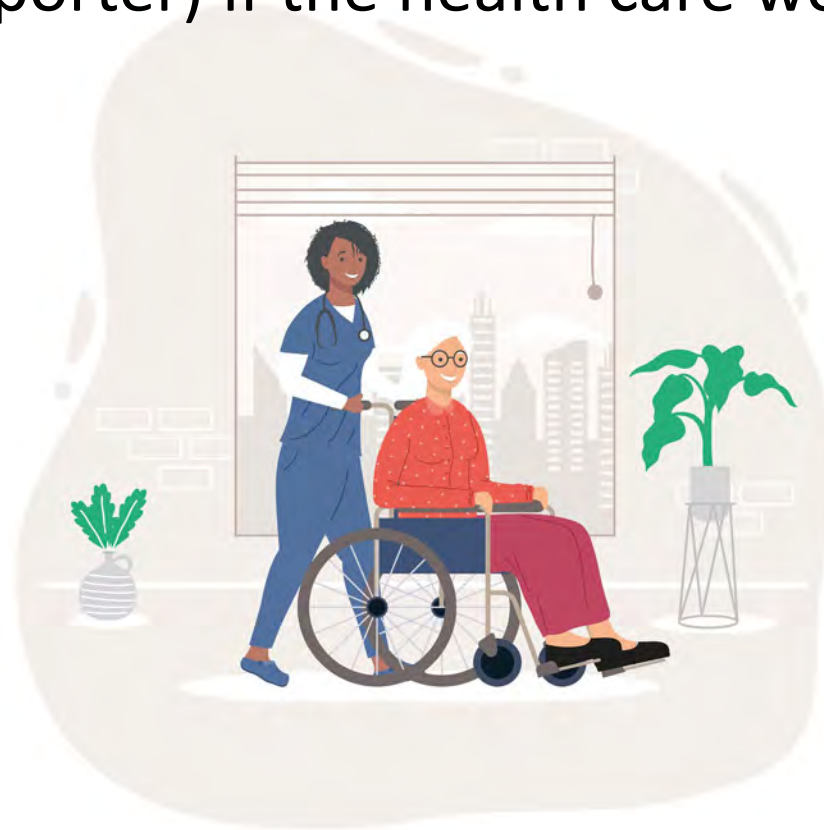
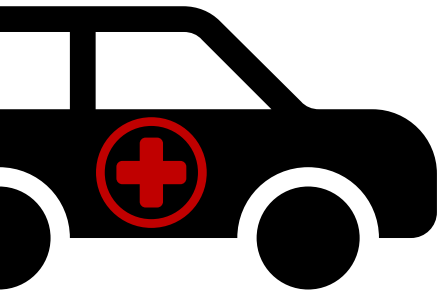
Conditionally Exempt cont.

- A person who discharges liquid and semiliquid biohazardous medical wastes, **excluding cultures and stocks**, to the sanitary sewer system if the operator of the wastewater sewer system and treatment facility allows, permits, authorizes, or otherwise approves of the discharges.
- Hazardous waste regulated by A.R.S. Title 49, Chapter 5.



Conditionally Exempt cont.

- A health care worker who uses a multi-purpose vehicle in the conduct of routine health care business, other than transporting waste, is exempt from the requirements of R18-13-1409 (biohazardous medical waste transporter) if the health care worker complies with all of the following...



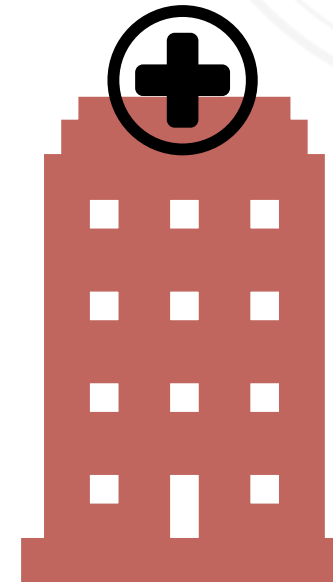
Rules for Generator using a Multi Purpose Vehicle:

- Package the biohazardous medical waste according to R18-13-1407.
- Secure the package biohazardous medical waste within the vehicle so as to minimize spills.
- Transport the biohazardous medical waste to the place of business or to a medical waste treatment or disposal facility.
- Clean the vehicle when it shows visible signs of contamination.
- Secure the vehicle to prevent unauthorized contact with the biohazardous medical waste.



Conditionally exempt cont.

- A person who transports biohazardous medical waste between multiple properties owned or operated by the same owner or governmental entity, but is separated by a public thoroughfare, is exempt from the requirements of R18-13-1409 if the person complies with R18- 13-1403(B)(5)(a) through (e). (Slide 27)



Slide 27



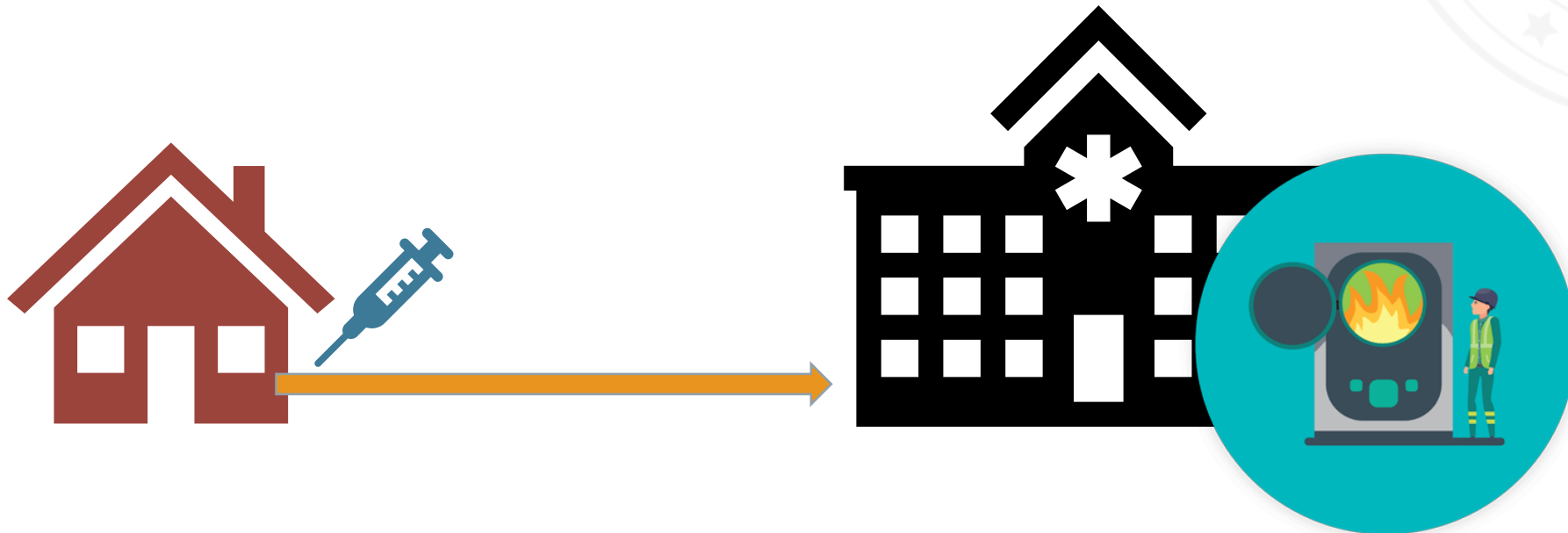
Conditionally exempt cont.

- A hospital that chooses to accept medical sharps from the private practices of staff physicians is exempt from the requirement to obtain facility plan approval as long as the hospital collects medical sharps for off-site treatment or disposal.



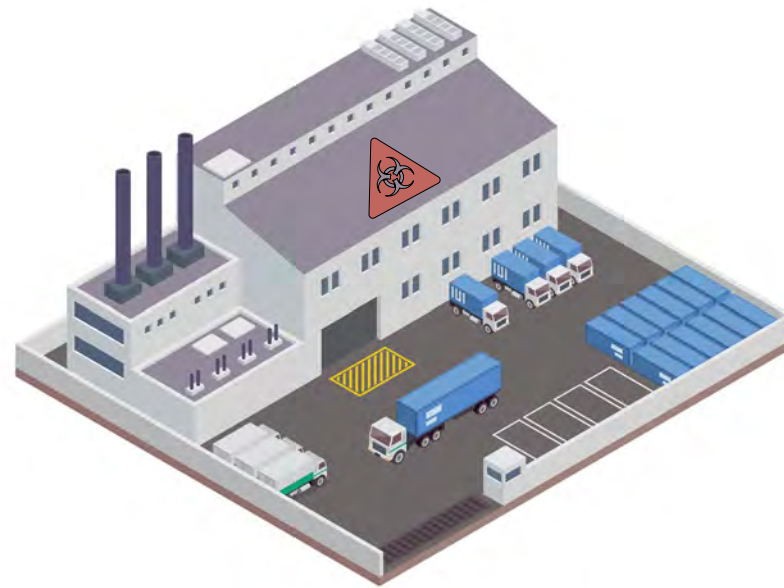
Exempt from Some of the Requirements

- A generator who treats biohazardous medical waste on site can accept waste from household generators (R18-13-1403(A)(4)) for treatment and is not required to obtain facility plan approval.



Exempt from some of the requirements

- A generator who self-hauls biohazardous medical waste to an ADEQ-approved medical waste treatment, storage, transfer, or disposal facility is not required to obtain a biohazardous medical waste transportation license as long as they package the waste as according to rules on Slide 27.





Proper Packaging of Biohazardous Medical Waste

Non Sharps Packaging

- 2 Possible Packaging Options:
 - A red disposable plastic bag which must be:
 - Leak resistant,
 - Impervious to moisture,
 - Of sufficient strength to prevent tearing or bursting under normal conditions of use and handling,
 - Sealed to prevent leakage during transport, and
 - Placed in a secondary container that contains the universal biohazard symbol to protect the bag during storage and transport. The secondary container may be either disposable or reusable.



Non Sharps Packaging cont.

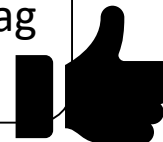
- A reusable container bearing the biohazard symbol must be:
 - Leak-proof on all sides and bottom, closed with a fitted lid, and constructed of smooth, easily cleanable materials.
 - Used for the storage or transport of biohazardous medical waste.
 - Cleaned after each use **unless** the inner surfaces of the container have been protected by disposable liners.



No Liner, Clean
every time



With Liner, only
clean when bag
leaks



Examples of Non Sharps Packaging



Guidelines for Cleaning Reusable Containers

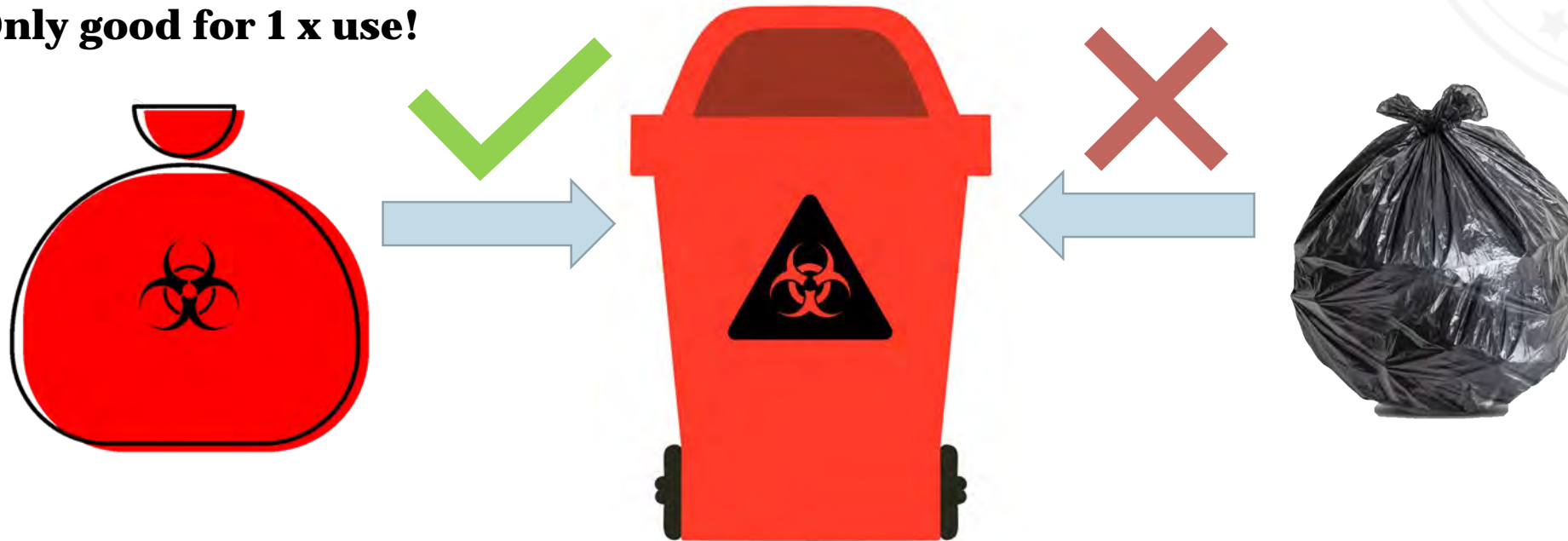
- Exposure to hot water (minimum temperature of 180°F) for a minimum of 15 seconds.
- Exposure to an EPA-approved chemical disinfectant used under established protocols and regulations. www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants
- Any other method that the ADEQ determines is acceptable.
 - NOTE: Determination of acceptability must be made in advance of the cleaning.



Reusable Containers cont.

- Generators cannot use reusable containers for anything other than for the storage of biohazardous medical waste.
- Generators cannot reuse disposable packaging and liners, and must manage such items as biohazardous medical waste.

Only good for 1 x use!



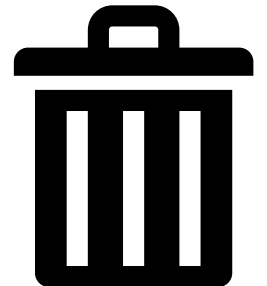
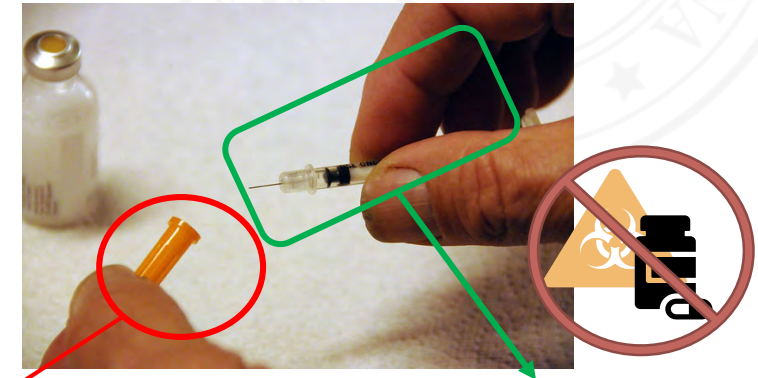
Packaging of Sharps

- Prior to sharps being treated for either On or Offsite:
 - Place medical sharps in a container that is rigid, puncture resistant, leak proof, and capable of being securely closed.
- If sharps are being treated through a mail-back treatment system, package sharps in provided packaging and retain proof of shipping.



Sharps Disposal

- Syringes may not have to be placed in a medical sharps container if:
 - Syringes that have never had a needle (sharp) attached, **or**
 - The needle or sharp was removed so the syringe no longer has a stick or puncture hazard.
- Syringes are excluded from being placed in a medical sharps container and may be treated as a solid waste, if:
 - They are not composed of biohazardous items listed in R18-13- 1401(4).
 - Or do not contain discarded drugs or another regulated substance.



Sharps Treatment Onsite

- Medical sharps must be placed in a container after rendering them incapable of creating a stick hazard.
- Medical sharps encapsulated or processed in this manner are considered to be solid waste.

Destroyed/Encapsulated Sharps



Disposal of Cultures and Stocks

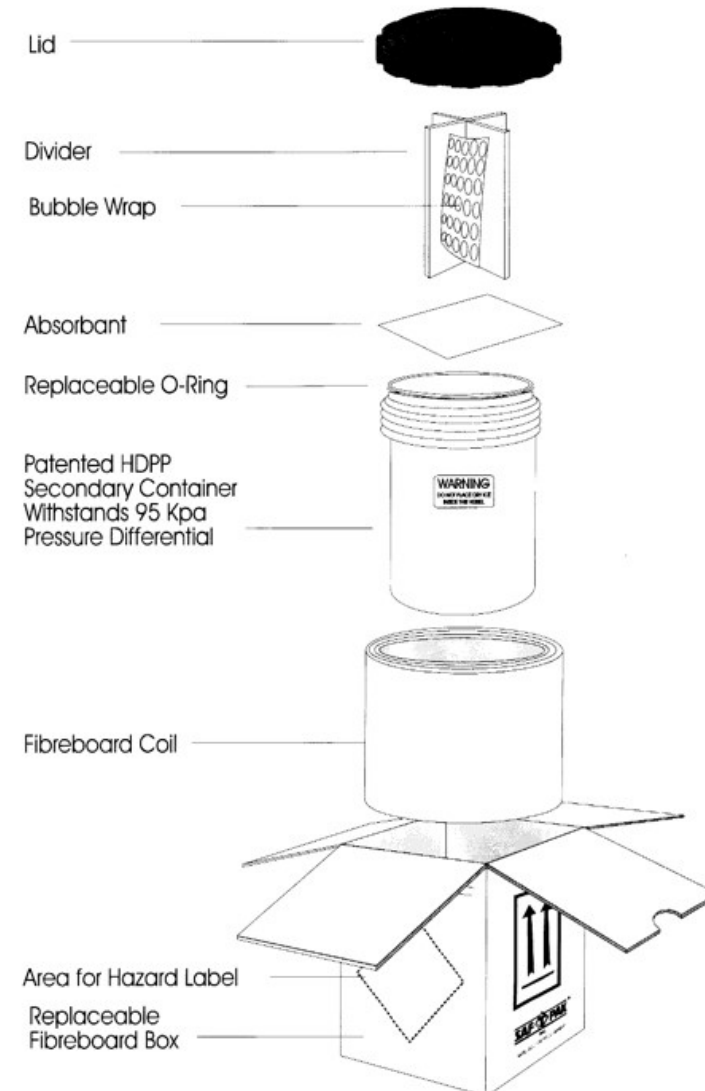
- Cultures and stocks that were generated in the following manner must be treated as biohazardous medical waste:
 - Diagnosis, treatment or immunization of a human being or animal
 - Any research related to the diagnosis, treatment or immunization of human beings or animals.
 - Production or testing of biologicals
- Onsite disposal
 - Cultures and stocks must be incinerated, autoclaved, or treated by an ADEQ approved alternative medical waste treatment method*



*If in a research lab refer to federal guidelines on proper disposal of stocks and cultures, especially if produced in large amounts.

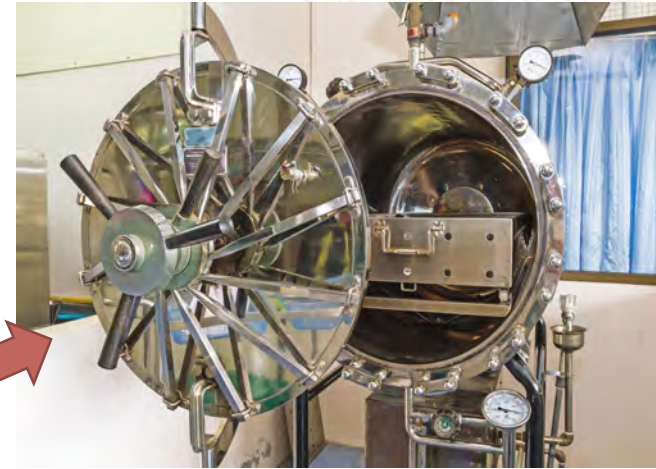
Disposal of Cultures and Stocks

- Shipping guidance for offsite disposal:
 - Must be packaged inside a watertight primary container with absorbent packing materials.
 - Then placed into a watertight secondary container with sufficient cushioning material to prevent shifting between the secondary and inner container.



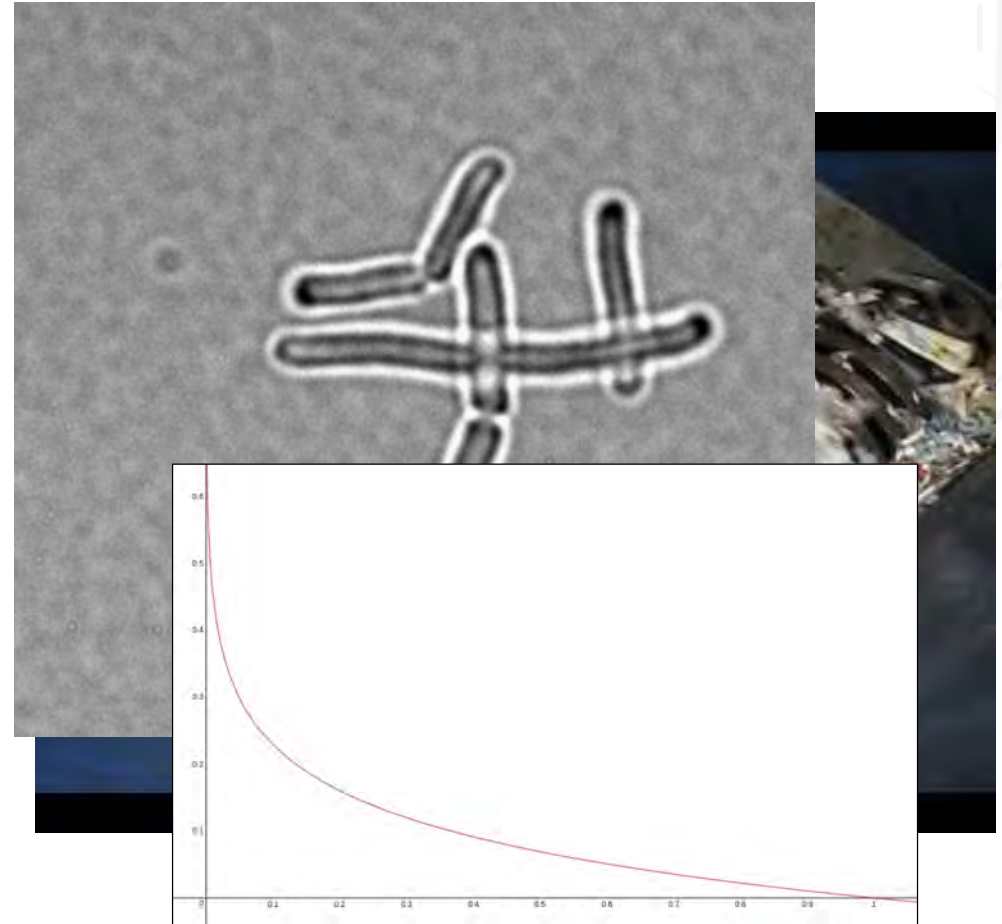
Experimental or Research Animal Waste

- Bedding must be autoclaved onsite
- Or package as described in R18-13-1407
(Non sharps packaging)



Experimental or Research Animals Wastes

- Incinerate animal carcasses on site or taken offsite for treatment, it must be packed in one of the following methods:
 - Package the waste in a leakproof, covered container, label the contents and send to an incinerator or a Department approved landfill
 - Pre-process by grinding, then treat by a method that achieves the standards of R18-13-1415 (A)
 - A 6 log₁₀ inactivation in the concentration of vegetative microorganisms.
 - A 4 log₁₀ inactivation in the concentration of *Bacillus stearothermophilus* or *Bacillus subtilis* as is appropriate to the technology.



Trace Chemotherapy

- Includes: masks, empty drug vials, gloves, gowns, IV tubing, empty IV bags/bottles, and spill clean-up materials
- Does not include: chemotherapy waste, such as full expired vials of chemotherapy drugs
 - Note: Chemotherapy waste may be considered hazardous wastes and must be handled according to the hazardous waste regulations if deemed a hazardous waste by the generator.
- Must be incinerated or disposed of in either an approved solid waste or hazardous waste disposal facility
- Trace chemotherapy waste tends to be collected in Yellow bins with the words “Caution Trace Chemotherapy waste”



Examples of Trace Chemotherapy Storage



Discarded Drugs

- Non-hazardous discarded drugs can either be destroyed on site, by any method that prevents the drugs use, prior to placing the waste out for collection.
- Or, discarded drugs can be segregated for offsite transport. Discarded drugs are usually placed into white and blue bins.
- DEA requires additional tracking and other requirements for controlled substances. So check with the DEA for proper procedures.





Proper Storage of Biohazardous Medical Waste

Storage Prior to Shipment

- Generators are able to place a container of biohazardous medical waste alongside a container of solid waste as long as the container is identified to avoid co-mingling with the solid waste.
- The storage area **cannot** be used to store substances for human consumption or for medical supplies.

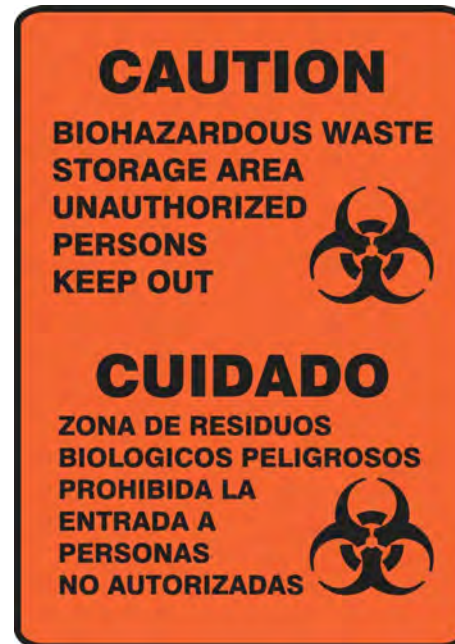


Once Packaged for Shipment

- Once packaged for shipment the generator must provide a storage area for the biohazardous medical waste until the waste is collected and comply with the following requirements:
 - Secure the storage area in a manner that restricts access or contact to those who are authorized.

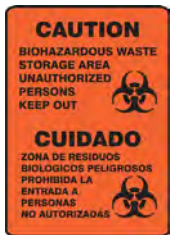


- Display the universal biohazard symbol and post warning signs with the following wording in both English and in Spanish:
 - CAUTION -- BIOHAZARDOUS MEDICAL WASTE STORAGE AREA -- UNAUTHORIZED PERSONS KEEP OUT” and
 - In Spanish “PRECAUCION -- ZONA DE ALMACENAMIENTO DE DES- PERDICIOS BIOLOGICOS PELIGROSOS -- PROHIBIDA LA ENTRADA A PERSONAS NO AUTORIZADAS.”



Storage cont.

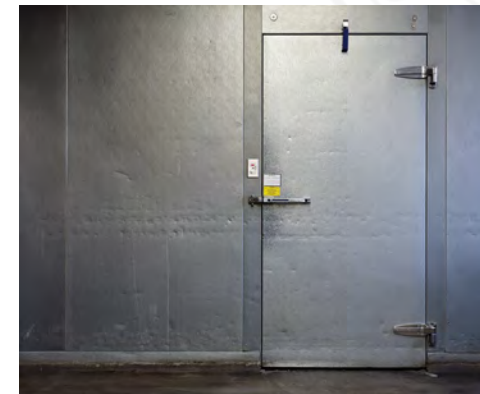
- Once the biohazardous medical waste is set out for collection, the generator must comply with all of the following requirements:
 - Biohazardous medical waste cannot be kept for longer than 90 days



Cannot Stay
longer than 90
days!

Storage Cont.

- Putrescible biohazardous medical waste may be kept unrefrigerated up to 72 hours as long as it does not cause an odor detectable beyond the property line or attract vermin.
 - Putrescible-something that is liable to decay
- After 72 hours it must be refrigerated at 40° F or less for no longer than 90 days.



- Nonputrescible biohazardous medical waste may be kept unrefrigerated for up to 90 days

Storage Cont.

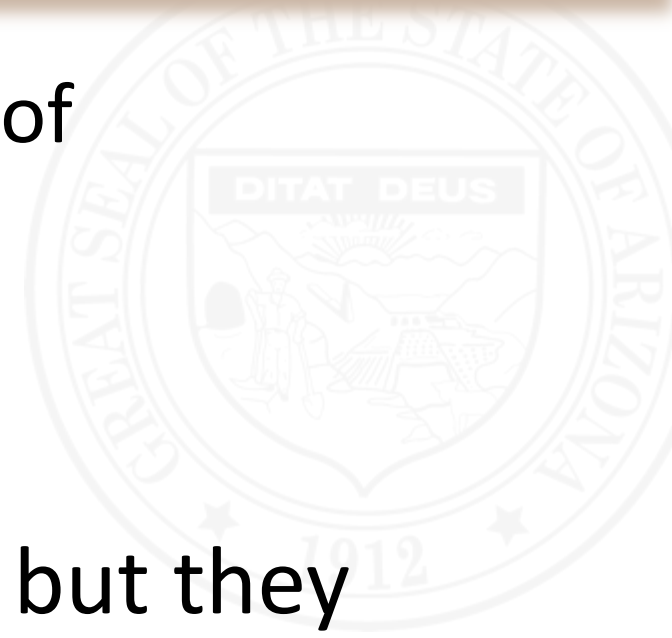
- Keep storage area free of visible contamination.
- Protect waste from contact with water, precipitation, wind or animals.
- Ensure that the waste does not provide a breeding place or a food source for insects or rodents.
- Handle spills by repackaging the biohazardous medical waste, re-labeling the containers and cleaning any surface as prescribed in R18-13-1407(A)(2)(b).
- Trace chemotherapy waste must be clearly identifiable by its label.





Biohazardous Medical Waste Treated Onsite

- There are 2 specific options for the treatment of Biohazardous Medical Waste:
 - Incineration
 - Autoclaving
- A.A.C does allow for alternative methods but they must be approved.
- ADEQ Approved Alternative Medical Waste Treatment Method
 - static.azdeq.gov/wpd/alt_med_waste_treatment_list.pdf



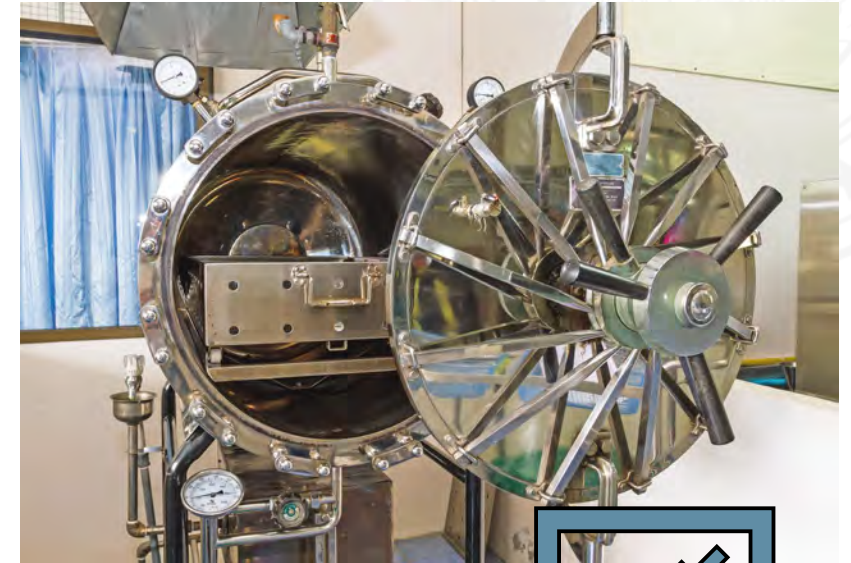
Incineration

- May be required to obtain a permit from local or state air quality agency.
- Reduce the waste, excluding metallic items, into carbonized or mineralized ash.
- Determine whether the incinerator ash is hazardous waste as according to A.R.S. Title 49, Chapter 5.
- Dispose of the non-hazardous waste incinerator ash at a ADEQ approved Municipal Solid Waste Landfill.



Autoclaves

- Further process by grinding, shredding, or any other process, any recognizable animals and human tissue, organs, or body parts, to render such waste non-recognizable and ensure effective treatment.
- Operate the autoclave at the manufacturer's specifications appropriate for the quantity and density of the load.
- Keep records of equipment maintenance for the duration of equipment use that include the date and results of all equipment calibration and maintenance.



- Keep records of operational performance levels for six months after each treatment cycle. Operational performance level recordkeeping includes all of the following:
 - Duration of time for each treatment cycle.
 - The temperature and pressure maintained in the treatment unit during each cycle.
 - The methods used to determine treatment parameters in the manufacturer's specifications.
 - The methods in manufacturer's specifications used to confirm microbial inactivation and the test results.
 - Any other operating parameters in the manufacturer's specifications for each treatment cycle.



Alternative Treatment Methods

- Can only use alternative treatment methods registered with ADEQ.
- Further process by grinding, shredding, or any other process, any recognizable animals and human tissue, organs, or body parts, to render this waste non-recognizable and ensure effective treatment.
- Follow the manufacturer's specifications for equipment operation.
- Supply upon request all of the following:
 - The ADEQ registration number for the alternative medical waste treatment technology and the type of biohazardous medical waste that the equipment is registered to treat.
 - The equipment specifications that include all of the following:
 - The operating procedures for the equipment that enable the treater to comply with the treatment standards.
 - The instructions for equipment maintenance, testing, and calibration that enable the treater to comply with the treatment standards.



Alternative Treatment Methods cont.

- Maintain a training manual regarding the proper operation of the equipment.
- Maintain a treatment record for 6 months consisting of:
 - A log of the volume of medical waste treated.
 - The calibration and maintenance records.
 - The equipment parameters for the duration of use.
- Registration of alternative treatment methods is not a requirement for drug and sharp destruction products.



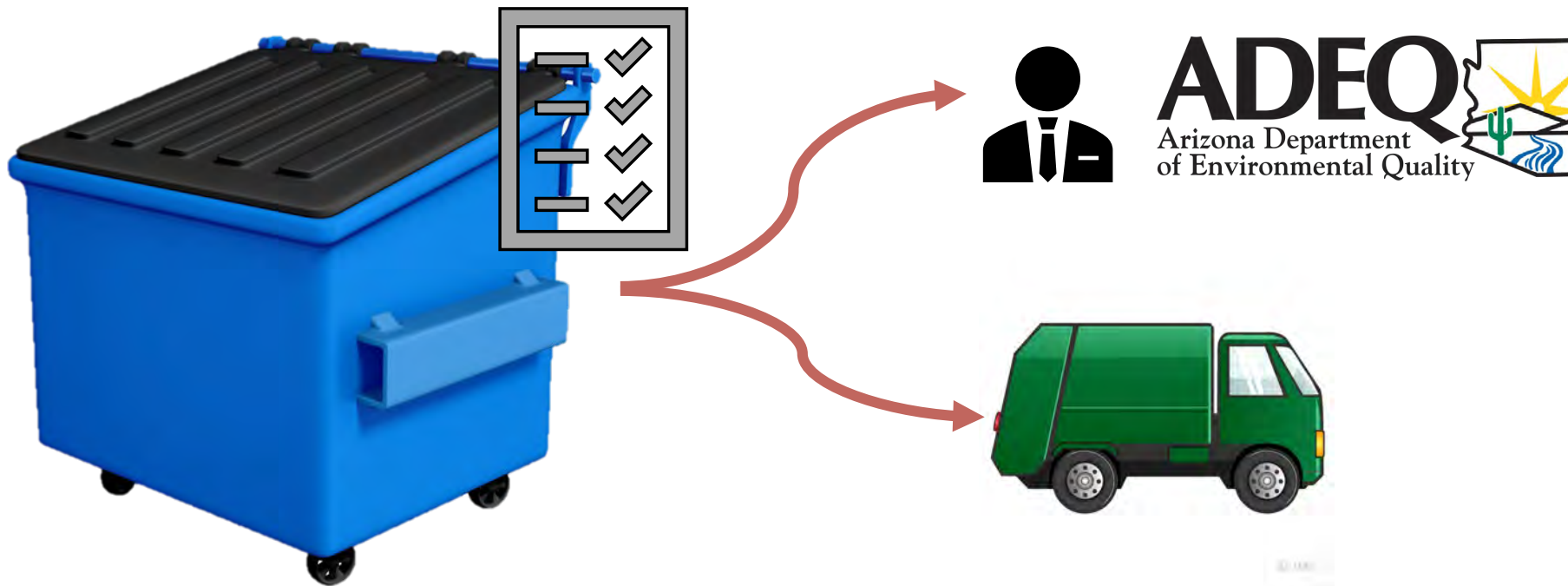
Once Biohazardous Medical Waste has been treated....

- Attach to the package or container a label, placard, or tag with the following words: “This medical waste has been treated as required by the Arizona Department of Environmental Quality standards.”



Once Biohazardous Medical Waste has been treated....

- Place the treated medical waste out for collection as a general solid waste.
- Be able to provide certification of treatment to the solid waste collection agency or municipal solid waste landfill.
- Be able to provide certification of treatment to ADEQ inspectors upon request.





Biohazardous Medical Waste Transported Off Site for Treatment

Requirements for Generators

- Must be properly packaged as according to their type prescribed in R18-13-1407, R18-13-1420, and R18-13-1419. (see previous slides)
- Must be transported by a ADEQ licensed transporter.

Arizona Department of Environmental Quality

BIOHAZARDOUS MEDICAL WASTE TRANSPORTER LICENSE NO. «TR No»

In accordance with Arizona Administrative Code Title 18, Chapter 13, Article 14

License issued to: «Company Name»

This License for Arizona Biohazardous Medical Waste Transporter is issued to the above named company or entity, and is to be used for transport of biohazardous medical waste in accordance with AAC R18-13-1401 et. seq. This License is deemed effective on the issue Date below, and expires on the Expiration Date below.

This License is granted based upon the information provided in the Application for Arizona Biohazardous Medical Waste Transporter Registration. This License does not relieve the registrant from the requirement to obtain permits and related vehicle inspections from the counties or local governments within which biohazardous medical waste will be transported. This License is not transferable from one company or entity to another.

ISSUE DATE: «Issue Date»

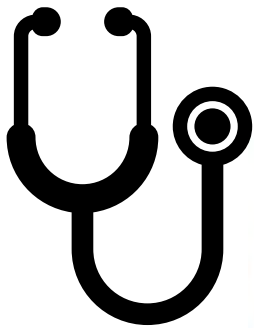
EXPIRATION DATE: «License Expiration Date»

Manager
Solid Waste Unit
Waste Programs Division

/

Requirements of Generators

- Must obtain a copy of the tracking document and keep for the period required under USDOT 49 CFR 172.201
 - www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-C/part-172/subpart-C/section-172.201
 - Current Requirements is for a minimum of 2 years



Tracking Documents – Generator Responsibility

Name and
address of the
generator.

ADEQ Approved Transporter		MEDICAL WASTE TRACKING FORM NUMBER	
We protect what matters.		STANDARD MANIFEST 001-10-06-STD	
CUSTOMER NO. 21132			
1. Generator's Name, Address and Telephone Number Attn: John Generator BIO/ABC Hospital 1234 Street Anywhere, IL 123456			
CUSTOMER NUMBER 111 111 1111		GENERATOR'S REGISTRATION #	
2A. DESCRIPTION OF WASTE	2B. CONTAINER TYPE	2C. NO. OF CONTAINERS	2D. VOLUME
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII	TB04 - 28 Gallon Reusable (3.7 cu ft)	6	22.2 Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
UN3291, Regulated Medical Waste, n.o.s., 6.2, PGII			Cu Ft.
3. Generator's Certification: "I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations."		TOTALS ▶	6 22.2 Cu Ft.
<input checked="" type="checkbox"/> Printed/Typed Name John Generator		Signature John Generator Date 11/11/22	

Quantity of
biohazardous
medical waste
collected by
weight, volume,
or number of
containers.

Date the
biohazardous
waste is
collected.

Tracking Documents – Transporter Responsibility

- A transporter who accepts biohazardous medical waste from a generator must supply either a physical or electronic tracking document.
- A transporter must make sure that a copy of the tracking document accompanies the biohazardous medical waste.



- Upon delivery to a Department-approved transfer, storage, treatment, or disposal facility, the transporter will receive a signed copy to show that the facility accepted the waste.

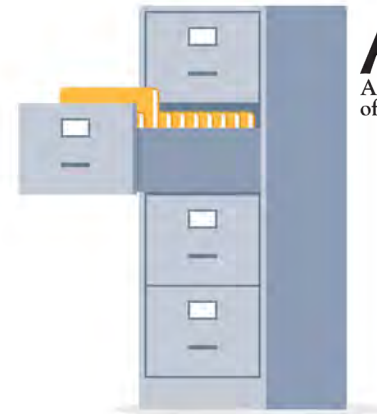
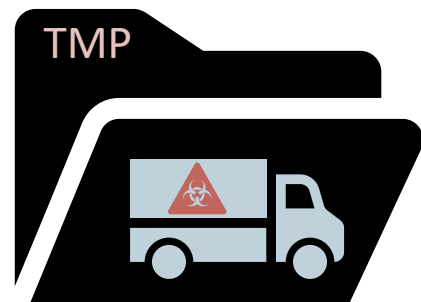
PRIMARY TRANSPORTER	4. TRANSPORTER 1 ADDRESS: ADEQ License Transporter 1110 N Transporter Way Whoville, AZ	Phone #: Applicable Permit Numbers: 123-456-7890
	TRANSPORTER CERTIFICATION: Receipt of medical waste as described above. Print/Type Name Jim Transporter Signature <i>Jim Transporter</i> Date 11/11/22	
TRANSPORTER 2 / INTERMEDIATE HANDLER	5. INTERMEDIATE HANDLER 2 / TRANSPORTER 2 ADDRESS:	Phone #: Applicable Permit Numbers:
	INTERMEDIATE HANDLER / TRANSPORTER CERTIFICATION: Receipt of medical waste as described above. Print/Type Name _____ Signature _____ Date _____	
TRANSPORTER 3 / INTERMEDIATE HANDLER	6. INTERMEDIATE HANDLER 3 / TRANSPORTER 3 ADDRESS:	Phone #: Applicable Permit Numbers:
	INTERMEDIATE HANDLER / TRANSPORTER CERTIFICATION: Receipt of medical waste as described above. Print/Type Name _____ Signature _____ Date _____	
TREATMENT FACILITY	7. DISCREPANCY INDICATION	
	<input checked="" type="checkbox"/> 8A. Designated Facility: ADEQ Licensed Treatment Facility 2222 S Treatment Dr. Dr. Seuss, AZ	
	<input type="checkbox"/> 8B. Alternate Facility: <input type="checkbox"/> 8C. Alternate Facility: <input type="checkbox"/> 8D. Alternate Facility:	
TREATMENT FACILITY: I certify that I have been authorized by the applicable state agency to accept untreated medical wastes and that I have received the above indicated wastes in accordance with the requirement outlined in that authorization. Print/Type Name Tom Facility Signature <i>Tom Facility</i> Date 11/19/22		



Biohazardous Medical Waste Transporters

Biohazardous Medical Waste Transporters

- In order to transport biohazardous medical waste transporters must obtain a transporter license from ADEQ
 - The license is valid for 5 years, (A.R.S. R18-13-1409).
 - Requires a Transportation Management Plan to be on file with ADEQ



Biohazardous Medical Waste Transporters cont.

- ADEQ Inspection of vehicles to verify they are leak tight and fully enclosed.
- Operator must limit vehicle access to only authorized personnel.
- Biohazardous medical waste can only be unloaded and reloaded to another vehicle at an ADEQ approved facility.



Acceptance of biohazardous medical waste

- Only biohazardous medical waste packaged properly (starts at [Slide 32](#)).
- After providing the generator with a signed tracking document:
 - Generators need to keep the document for the period required under the USDOT 49 CFR 172.201, current regulation is for a minimum of 2 years.
 - Transporter must deliver the waste to a ADEQ approved storage, transfer, or treatment facility within:
 - Putrescible: 72 hours unrefrigerated or 90 days if refrigerated at 40 F or less.
 - Non-putrescible: 90 days.



How to find an approved transporter

- Check the ADEQ website:
static.azdeq.gov/wpd/biohazard_medical_waste_transport_list.pdf
 - The ADEQ website does not segregate transporters by services provided. Some only provide service to crime scene cleanup, medical waste or animal waste.
- If you don't see your transporter or their license is expired, email ADEQ at solidwaste@azdeq.gov to see if there is an error in the list.
- If it is determined that the transporter is not licensed, they cannot be used as a biohazardous medical waste transporter.
- As the generator, **you** may be liable for the improper disposal of biohazardous medical waste if you use an unlicensed transporter.



- Use of vehicles that do not contain a fully encapsulated cargo area.
 - Note: Vehicles that are not dedicated to the transportation of medical waste are allowed, but they still must be leak tight and contain a separated driver's compartment



Potential Red Flags



- Failure to provide a signed tracking document (either physical or electronic)
- If operating within Maricopa County the vehicle must display a Maricopa ID on the vehicle. It should be similar to MV-#####
- Unable to provide a copy of the most recent license from ADEQ.

A detailed tracking document form with multiple sections and fields, including checkboxes and text areas.A sample of an Arizona Department of Environmental Quality Biohazardous Medical Waste Transporter License. The form includes the department name, license title, license number, and issuance details. It also contains a section for the license holder's information and a signature line for the manager.

Arizona Department of Environmental Quality

BIOHAZARDOUS MEDICAL WASTE TRANSPORTER
LICENSE NO. «TR No»

In accordance with Arizona Administrative Code Title 18, Chapter 13, Article 14

License issued to: «Company Name»

This License for Arizona Biohazardous Medical Waste Transporter is issued to the above named company or entity, and is to be used for transport of biohazardous medical waste in accordance with AAC R18-13-1401 et. seq. This License is deemed effective on the issue Date below, and expires on the Expiration Date below.

This License is granted based upon the information provided in the Application for Arizona Biohazardous Medical Waste Transporter Registration. This License does not relieve the registrant from the requirement to obtain permits and related vehicle inspections from the counties or local governments within which biohazardous medical waste will be transported. This License is not transferable from one company or entity to another.

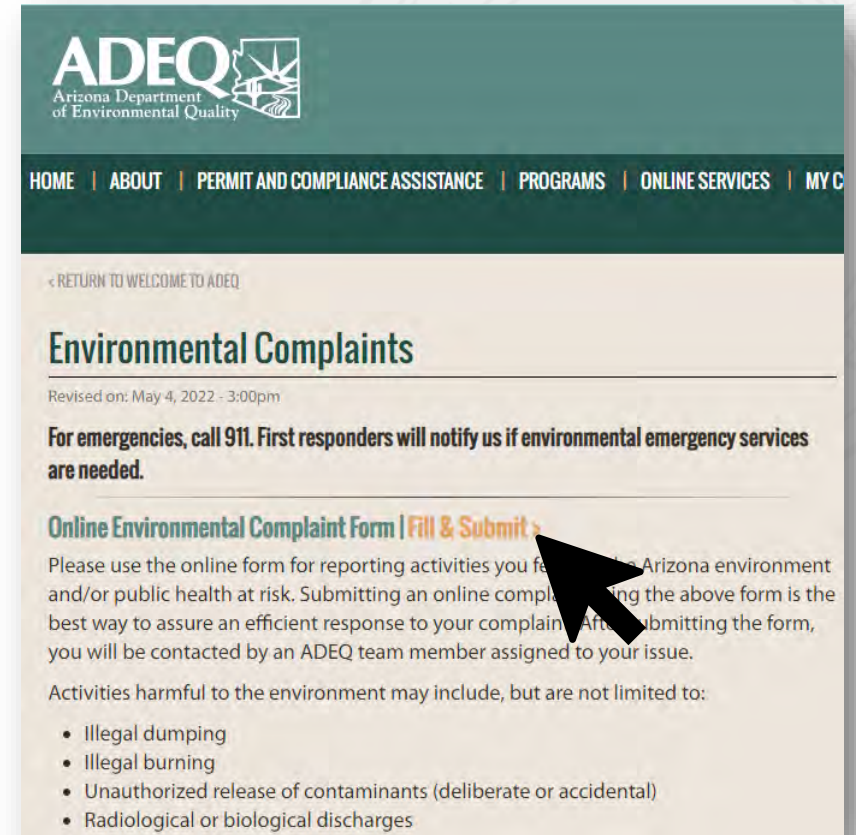
ISSUE DATE: «Issue Date»
EXPIRATION DATE: «License Expiration Date»

Manager
Solid Waste Unit
Waste Programs Division



Submitting a complaint to ADEQ

- If you find or are using a transporter that is failing to provide the requirements listed in R18-13-1409 do the following:
 - Submit a complaint through the ADEQ Environmental Complaints portal at azdeq.gov/EnvironmentalComplaints
- If you are not sure email us at solidwaste@azdeq.gov





New Emerging Technologies

- In the past couple of years ADEQ has been getting questions on if certain products could be used in a commercial setting.
- The code is not able to keep up with all the new technologies as they are developed, but fortunately the code does provide specific requirements for 2 different types of disposal for biohazardous medical waste, with a option for new technologies.
 - Incinerator
 - Autoclave
 - Alternative Treatment Technologies approved by the Agency
- Exclusions for sharps and prescription drug disposal.
 - Sharps require to use an encapsulation agent or any other process that prevents a stick hazard. (R18-13-1419 (A)(1))
 - Discarded drugs that are not hazardous waste, not returned to the manufacture, and segregated and labeled on site for transport to a treatment facility shall be destroyed on site by the generator of such drugs by any method that prevents the drugs' use prior to placing the waste out for collection. (R18-13-1418)
- Note: ADEQ does not endorse or promote any of the following products or brands. Approval is dependent on if they are able to satisfy the rules in A.A.C. and A.R.S.

Prescription Drug Destroyers

A liquid solvent that breaks down the pharmaceutical components to make them unextractable, as required by AAC R18-13-1418.

Advantages

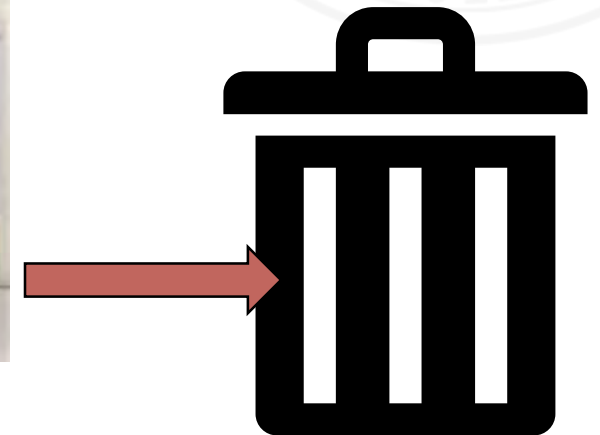
- Contained solution can be disposed of as solid waste, as long as it is non-hazardous.
- Easy to use and immediate destruction.
- Potential cost savings on disposal.

Limitations

- Liquids cannot be directly disposed of in the landfill and must solidified prior to disposal.
- DEA may require tracking of destruction of controlled substances.
- Must verify that the resulting solution is not categorized as hazardous waste.
- Confirm that the product is being used correctly by ensuring a standard process is in place and training employees.

Onsite Medical Sharps R18-13-1419

- For onsite treatment the generator must make sharps incapable of creating a stick hazard by using an encapsulation agent or any other process that prevents a stick hazard.
- Medical sharps encapsulated or processed in this manner are considered to be solid waste.



Needle Destruction Devices

Machines that either oxidize and granularize used needles or melts needles.

Advantages

- Easy to use
- No longer need to keep multiple large sharps containers
- Syringe can be disposed of as solid waste as long as it did not contain biohazardous medical waste.
- Small
- Quick disposal

Limitations

- Usually can only do 1 needle at a time
- Limited to only certain size needles
- Must have a back up option in case of breakdown
- High initial cost
- Can only be used to dispose of sharps

Medical Waste Incinerators

Smaller more “table top” options are coming available

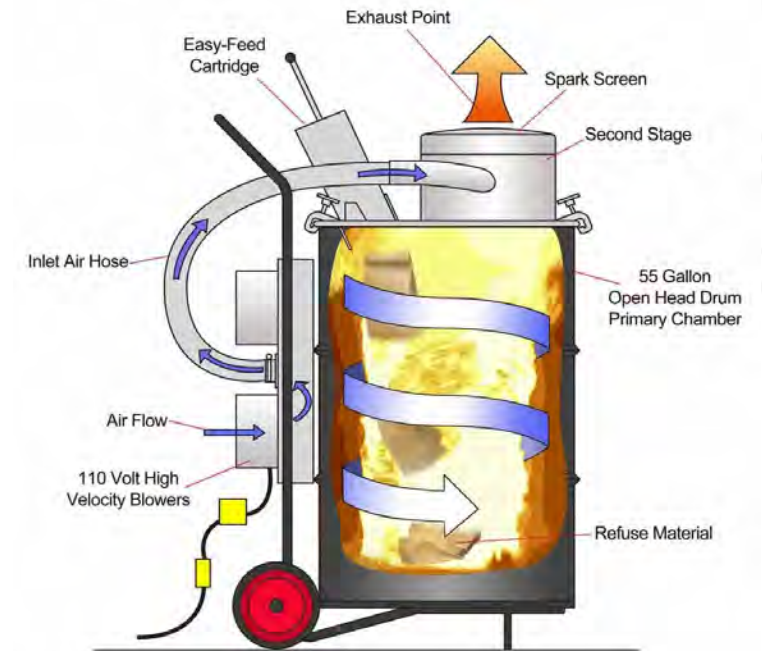
Must be able to follow the requirements in **ARS R18-13-1405**

Advantages

- Smaller storage area needed for the pickup of medical waste
- Have more control of the waste stream
- More quick destruction of waste, including pharmaceutical drugs
- As long as only the waste that is produced by your company/governmental agency, no facility plan approval with ADEQ is required.

Limitations

- Depending on the size and location of the unit you may need to get an air quality permit from the city/county
- Higher training load to ensure that it is being used correctly and being maintained.
- Need to check with the DEA concerning proper recording of destruction of controlled substances.
- Need to have a backup option for disposal if the incinerator breaks down.
- Cost



Any Questions?



Contact Information and References

- ADEQ Solid Waste Unit Email:
 - solidwaste@azdeq.gov
- Arizona Administrative Code:
apps.azsos.gov/public_services/Title_18/18-13.pdf
 - Biohazardous Medical Waste is R18-13-1401 thru R18-13-1420
- ADEQ Complaint Webpage: azdeq.gov/EnvironmentalComplaints
- ADEQ Biohazardous Medical Waste Webpage: azdeq.gov/BioMedWaste
- ADEQ Licensed Biohazardous Medical Waste Transporters:
static.azdeq.gov/wpd/biohazard_medical_waste_transport_list.pdf
- Presenter contact information
Kathleen Maltby
Maltby.Kathleen@azdeq.gov
602-771-4801