Bureau of Sustainable Materials Management

Solid Waste Management Facility Fact Sheet

[TBD] 2026

MediWaste Medical Waste Pyrolysis Facility
Pahrump, Nevada

Permit ID: SW1900REV00

State of Nevada

Department of Conservation and Natural Resources

Division of Environmental Protection

Bureau of Sustainable Materials Management

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I. Introduction

The Nevada Department of Environmental – Bureau of Sustainable Materials Management (Division) provides the following Fact Sheet in conjunction with the Permit for the MediWaste Medical Waste Pyrolysis Permit Application – pursuant to the Solid Waste Management Regulations of the Nevada Administrative Code **NAC 444.641.3(b)**

Permittee Name: MediWaste Disposal LLC
Facility Name: MediWaste Medical Waste Pyrolysis Facility
Permit Number: SW1900REV00

1. Description of Proposed Permit Modification

Not applicable (N/A) as this is a new permit.

2. Location and Land Use Information

The MediWaste Medical Waste Pyrolysis Facility is located within Nye County, located in the City of Pahrump, Nevada. Immediately adjacent to the West of facility is a storage facility. West of the storage facility is an urban center which holds the Pahrump DMV and a local Church. To the east of the facility is an existing ready mix concrete supplier site. The facility is located within a 4.70 acres parcel (035-191-52), that is zoned for heavy industrial use (HI). The Pahrump Regional Planning Commission approved a Conditional Use Permit (CUP) for the medical waste treatment facility on April 10, 2024.

3. The Divisions Proposed Action

The Nevada Division of Environmental Protection - Bureau of Sustainable Materials Management (Division) is proposing to approve and issue the new solid waste Permit.

4. Facility Summary

4.1 General Information

The facility will be situated on a 4.70-acre parcel of land in the City of Pahrump in Nye County, Nevada. This facility will serve the state of Nevada, the state of California, as well as various other markets throughout North America.

Properties and business surrounding portions of proposed facility are zoned for heavy industrial operations. Immediately adjacent to the West of facility is a storage facility. In the adjacent parking lot is an urban center which holds the Pahrump DMV and a local Church. To the east of the facility there is an existing ready mix concrete supplier site. Approximately 0.25 miles west of the facility are various Pahrump County buildings including the Pahrump Justice Court.

Vehicle access to the facility is through East Basin and the site is located at Avenue 1850 East Basin Avenue. Unauthorized access to the facility is secured by fencing, a closed-circuit television (CCTV) camera system, and lights to illuminate the areas during the day and night.

The existing property contains two one-story metal sided buildings which MediWaste is not expanding or modifying for the planned pyrolysis process. One building (Building 1) will function to accept and store medical waste prior to processing, while the second building (Building 2) will house the seven (7) pyrolysis units that process the medical waste. The existing buildings on-site are Building 1 (8,650 square feet [sq ft]) and Building 2 (3,764 sq ft).

Waste will arrive at the facility via enclosed 53-foot-long tractor trailers. Within the trailers, waste will be contained in closed, gaylord containers or polypropylene bags with two layers of additional packaging. Upon delivery at the Facility, waste containers will be staged until ready to be processed.

Incoming material will be managed from inside the facility using various material handling techniques (i.e., conveyors, forklifts, hand trucks/dollies, and manual handling). There will be no open management of waste at the Facility (i.e., no stockpiles). Transport vehicles with incoming regulated medical waste (RMW) may be staged/parked in the Facility yard for up to 30 days while awaiting processing. Waste received will be processed as soon as possible. No refrigerated trailers are required as MediWaste's Permit Application states no putrescible waste will be received.

When non-conforming waste is encountered (e.g., hazardous waste, waste rejected for radioactivity, compressed gas containers, containers of chemicals, etc.), the non-conforming waste will be rejected at the gate. No storage of non-conforming waste is allowed onsite.

4.2 Surface water

No water courses are found near or on the Facility site. The site is relatively flat topographically, and stormwater runoff within the fence line generally flows to the north along the asphalt surface, on to native ground surface cover in the rear of the facility and eventually to the stormwater detention basin in the northwest corner of the property. The areas surrounding the backside of the property (behind the gated entrance) will be graded to provide appropriate containment measures of stormwater.

4.3 Processing Units

The facility will consist of seven (7) processing units. The proposed process is one that converts solid medical waste, into byproducts and hydrated ash using high temperatures. No water is reported to be required for the process and the facility states that no wastewater is generated from the process itself.

The overall pyrolysis process for treatment of medical waste consists of three sequential processing steps listed below: The first unit operation is carried out in the primary pyrolytic chamber in which waste is heated with an external heat source to the point where molecular torsion and cracking takes place. This heat induced torsion breaks large molecules down to smaller volatile fragments (vapors). This process repeats itself until all the paper, plastic, and all other components of the waste are converted to vapors. The system is fully enclosed, with massive stainless-steel piping conveying the vapors out of the pyro system. The vapors are then received by the second stage – where a plasma forms. Under similar conditions as the pyrolytic chamber, this section of the system takes the volatile organic compounds (VOCs) - the volatile molecules - and further reduces them in size. Following this point in the process, excess air is quantitatively introduced to begin the oxidation process converting the of VOCs to carbon dioxide and water vapor. The final step in the process is the vent. The vent provides increased residence time to allow the remaining vapors and solid particulates to react. Refer to Section 4.5 for further information regarding the air pollution control systems.

4.4 Maximum Inventory

The facility is planning to process approximately 84,000 pounds of medical waste per day and will receive weekly shipments of medical waste for treatment. MediWaste will keep approximately 500,000 pounds of medical waste inside the processing building and ten (10) trailer loads within enclosed tractors in the secured paved lot. Each trailer can hold a maximum of 40,000 pounds. Thus, 900,000 pounds is the maximum amount of unprocessed medical waste that will be stored onsite at any time.

Table 1. Estimated Volume Range(s) of Ash Generated by Time Interval

Daily (lbs)	Weekly (lbs)	Monthly (lbs)	Yearly (lbs)
1,680 - 33,600	11,760 - 235,200	50,400 - 1,008,000	604,800 - 12,096,000

4.5 Air Pollution Control (APC) System

The details of the APC system are provided in the Air Pollution Control Permit with Bureau of Air Pollution Control (Permit AP[TBD], FIN A[TBD]).

4.6 Stormwater Run-off Control Systems and Groundwater

The property contains existing stormwater management features that will be utilized and maintained for facility operations and prevent groundwater contamination. Stormwater runoff within the fence line generally flows to the north along the asphalt surface, on to native ground surface cover in the rear of the facility and eventually to the stormwater detention basin in the northwest corner of the property.

4.7 Fire Suppression System

Building 1 (processing) is outfitted with a sprinkler system that is automatically activated if fire or smoke is detected – the fire suppression system is already in place and constructed. The facility will also be outfitted with fire extinguishers throughout the facility. The Facility Contingency Plan will be on file with local emergency responders in case of emergency.

4.8 Accepted Materials

The only types of materials that may be accepted for processing are the following:

a. Sharps:
    i. Any object contaminated with a pathogen or that may become contaminated with a pathogen through handling or during transportation and also capable of cutting or penetrating skin or packaging material. Sharps includes needles, syringes, scalpels, broken glass, culture slides, culture dishes, broken capillary tubes, broken rigid plastic and exposed ends of dental wires.
b. Regulated Medical Waste or Clinical Waste or (Bio) Medical Waste as defined in NAC 444.589
c. Trace Chemotherapy Contaminated Waste:
    i. RCRA empty drug vials, syringes and needles, split kits, IV tubing and bags, contaminated gloves and gowns, and regulated materials as defined in applicable laws, rules, regulations or guidelines.
d. Pathological Waste:
    i. Human or animal body parts, organs, tissues and surgical specimen (decanted of formaldehyde, formalin or other preservatives, as required per hazardous waste rules).
e. Non-RCRA Pharmaceuticals:
    i. Must be characterized and certified as non-RCRA hazardous waste by the generator. Excludes all DEA scheduled drugs, including controlled substances.
f. California Only – Solidified Canisters:
    i. Suction canisters that have been injected with solidifier materials to control liquids or suction canisters made of high heat resistant plastics such as polysulfide.
g. No other material or waste will be accepted unless prior written approval is received from the Nevada Division of Environmental Protection.
h. Reserved

4.9 Prohibited Materials

The types of materials prohibited include, but not limited to, the following:

a. Untreated Category A Infectious Substances.
b. Putrescible wastes as defined in NAC 444.608
c. RCRA Hazardous Waste as defined under CFR 40 Part 261, NRS 459.430, and NAC 444.580
    i. Including drums or other containers with a hazard warning symbol, batteries and other heavy metals.
d. RCRA Hazardous Pharmaceutical Waste as defined by 40 CFR 266 Subpart P
e. State listed hazardous and dangerous waste pursuant to NAC 444.8565
f. DEA controlled drugs, including controlled substances
g. Radioactive Waste if the radiation exceeds the screening level of 36 µR/hr, as outlined in Section 4.2 of the Application.
h. Chemicals including:
    i. Formaldehyde, formalin, acids, alcohol, waste solvents reagents, fixer developer.
i. Lead-containing materials.
j. Complete Human Remains (including heads, full torsos and fetuses).
k. Bulk Chemotherapy Waste.
l. Compressed Glass Cylinders, Canister, Inhalers and Aerosol Cans.
m. Any Mercury-Containing Material or Devices:
    i. Any mercury thermometers, thermometers, Sphygmomanometers, lab or medical devices.
n. Mercury-Containing Dental Waste:
    i. Non-contact and contact amalgam and products, chairside, amalgam sludge or vacuum pump filters, extracted teeth with mercury filings and empty amalgam capsules.
o. Reserved

4.10 Waste Tracking and Resident Time

MediWaste utilizes a customer relationship management (CRM) tool and associated software to track orders, provide delivery schedules, and control inventory in the building for all incoming materials. Upon receipt, each container of medical waste will have a label that will be scanned upon acceptance into the CRM software. The label will be used to track the container while at the facility and will tie to the trailer the container is staged in. The label will be scanned again prior to destruction to close the loop and generate an invoice to the customer.

Waste will be accepted at the facility on a predetermined, scheduled basis. Unprocessed medical waste will remain in the delivery trailers in the secured, fenced portion of the facility until the medical waste can be offloaded.

The trailers will be surrounded by a reusable diking system to ensure any spills of material are contained. The trucks are also sealed and leak proof for washing. Once offloaded, the waste containers will be staged in Building 1 until processing. Staging the medical waste within the trailers will limit the movement of the containers and reduce the risk of any incidents during container transfers. Received medical waste will not be onsite for more than 30 days prior to processing.

4.11 Residue

Waste from the pyrolysis process is hydrated ash that is contained in the pyrolytic chamber of the process equipment. The hydrated ash, char, and byproducts are the residue from thermal breakdown. The residue is from non-combustibles like metals, sharps, tweezers, surgical instruments, fillers in plastics and paper like Al_2CO_3, $CaCO_3$, CaO, clays in cardboard, glass bottles, glass components, and ceramics.

Once full, a chamber from a processing unit will be transferred from the catch bin on the pyrolysis equipment to end dump tractor trailers or tipper transfer trailers. All containers will have lids or a tarp system to contain the ash.

The generation of hydrated ash will depend on many variables such as the amount of cardboard, glass, paper, fillers, surgical instruments, etc. MediWaste estimates that the seven machines will generate one 40-yard roll-off container per 7 to 10 days. Before the ash is sent to the disposal facility, full Toxicity Characteristic Leaching Procedure (TCLP) tests must be completed by a Nevada Certified Laboratory. With these results are used to evaluate the ash's suitability for disposal at an appropriately permitted disposal facility. If the permitted disposal facility is located within the state of Nevada, the NDEP-BSMM must approve the disposal of the ash at that facility.

A retention sample is kept per pyro batch and will be sent off for periodic testing. These samples will be kept separate but the combined "load", which is a roll-off container, will be managed in accordance with the most conservative sampling result (e.g., if a sample comes back as hazardous then the entire roll-off bin will be managed as hazardous). All retention samples are required to be analyzed by a Nevada certified laboratory per NRS 459. 500. The hydrated ash will also be tested for dioxin and furans per EPA test Method 8290A. In the event of extended facility downtime, the roll-off bin would be shipped within 90 days of generation.

4.12 Stockpile Areas

The filled, covered, tailers containing ash will be moved to a designated storage area in the asphalt area in the rear of the facility pending characterization and disposal. The material will be held in a fully enclosed 40-yard roll-off container. There will be a full recording of additions to the container that includes the day, time, weight, and waste code (if applicable). This recording process will also require a visual inspection of the container and surrounding area to ensure any material spills are noted and cleaned up immediately. The ash will be collected until the facility has enough volume for a full load (23 tons) and will then be shipped to the appropriately permitted disposal facility. If the permitted disposal facility is located within the state of Nevada, the NDEP-BSMM must approve the disposal of the ash at that facility.

4.13 Process Water

There is no water required for the pyrolysis process, nor is there any wastewater generated from the process.

4.14 Litter, Odor Control, and Open Burning

Facility will not discharge or cause to be discharged, from any stationary source, any material or regulated air pollutant which is or tends to be offensive to the senses, injurious, or detrimental to health and safety, or which in any way interferes with or prevents the comfortable enjoyment of life or property. There will be no open burning of any combustible refuse, waste, garbage, or oil, or for any salvage operation at the Facility. Salvaging of the waste will not be permitted at the proposed Facility.

5. Document Availability

The ADMINISTRATIVE RECORD, which includes the DRAFT PERMIT, and correspondence are available for public review online at https://ndep-onbase.nv.gov/ or by contacting:

Located at: Nevada Division of Environmental Protection
Bureau of Sustainable Materials Management
901 S. Stewart St., Suite 4001
Carson City, NV 89701-5249
Main Line: 775.687.9462

6. Procedure for Public Review

Questions or comments may be submitted on or before the end of the public comment period.

In writing to: Permitting Branch Supervisor
Nevada Division of Environmental Protection
Bureau of Sustainable Materials Management
901 S. Stewart St., Suite 4001
Carson City, NV 89701-5249

Emailed to: solidwaste@ndep.nv.gov

The Division's Notice of Intent to approve the Permit for the MediWaste Medical Waste Pyrolysis Facility subject to the conditions contained in the Permit, will be published on the NDEP website. Additionally, the Public Notice will be mailed to interested persons on the Division's mailing list. The Division will accept written comments on the proposed draft permit from all interested persons until the end of the public comment period.

7. Public Hearing

A public hearing will be held if requested during the public comment period.

8. Comment Period

The 30-day comment period will begin on April 1, 2026 at 8:00 a.m. and end on May 1, 2026 at 5:00 p.m. Those wanting to comment should do so by writing. The Division may extend the comment period as deemed necessary.