

# Fort Detrick Medical Waste Disposal Incinerator Options

## Previously Asked Questions

1. **Does the incinerator get to high enough temperatures to treat prions?** There is currently no prion research ongoing at Fort Detrick; however, the incinerator will be designed for the incineration of medical waste as regulated by the Maryland Department of Health (MDH) and the Maryland Department of Environment (MDE).
2. **Can or would the public be able to access continuous or real-time monitoring data?** Fort Detrick will abide by all emission monitoring requirements as outlined in the Title V permit. Monitoring records will be provided to the state and EPA as required. However, publicly accessible continuous and/or real-time reporting of monitoring data is not anticipated at this time. Monitoring data and reports required by the permit can be obtained through MDE.
3. **Can the Army outline the potential negative outcomes associated with the different plans (most specifically with the on-site incineration option being considered)? What mitigation and checks-balances might be put in place to reduce the probability of such negative outcomes? I would also like to better understand details related to the emissions from an on-site incinerator.** The NEPA analysis will discuss the positive and negative environmental impacts of the courses of action that are being considered. In accordance with best management practices and permitting requirements, the Army will implement actions to lessen the impacts to the environment where possible. A concern with the incinerator is air emissions. The standards for the incinerator require the maximum degree of emission reduction that the EPA determines to be achievable, which is known as the Maximum Achievable Control Technology—MACT standards. MACT will be implemented to meet EPA and MDE permitting requirements to limit air emissions. If the Army decides to move forward with this project a design will be initiated. Once a design is completed, emissions calculations from operations will be developed and incorporated into the Clean Air Act permitting application process. The MDE will then set emission factors in the permit and the Army will abide by them. Information on emissions will be available at that time.
4. **This is an appropriate strategy but only if the incinerator is equipped with CO2 capture technology. The US government should not be a contributor to atmospheric carbon dioxide concentrations. There is technology available to install to ensure minimal to no release.** Fort Detrick will abide by permit terms and conditions for emissions. Carbon dioxide is not regulated at this time. Maximum Achievable Control Technology (MACT) will be implemented to reduce regulated emissions in accordance with EPA and MDE requirements.
5. **Please describing the differences in allowable emissions between MACT and RACT? What is the process and timeline for installing improved emissions reduction technology if it is developed in the future?** Section 129 of the Clean Air Act required the EPA to set standards for hospital/medical/infectious waste incinerators. This led to EPA's development of New Source Performance Standards for medical waste incinerators which requires Maximum Achievable Control Technology (MACT). RACT (reasonably available control technology) is a less stringent control technology standard that is not applicable for medical waste incinerators in the New Source Performance Standards. Air pollution controls on the incinerator are incorporated to ensure emissions are within permit limitations.
6. **I learned that currently, all the fort's medical waste is being shipped to an incinerator in the region. Is there potential that it may close? (I know that Baltimore City passed regulations that might impact its operations, but that those are being challenged in court.) If the incinerator closes and Fort Detrick does not build a new incinerator, what would be the options for medical waste?** If incinerator operations at the current incinerator are interrupted, Fort Detrick has the ability to ship regulated medical waste to other treatment/disposal facilities permitted to accept regulated medical waste.



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7. **What pollutants in the incinerators' emissions are monitored and/or required to be reduced under current regulations? Are there emissions that do or might cause health impacts that aren't regulated?** In 2010, EPA's New Source Performance Standards sets emission guidelines for the following pollutants: cadmium, carbon monoxide, hydrogen chloride, lead, mercury, nitrogen oxides, particulate matter, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (known as dioxins and furans), and sulfur dioxide. Additionally, Maryland's Air Toxic Regulations set emission guidelines for the following pollutants: cadmium, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, hydrogen chloride, lead, mercury, polychlorinated biphenyls, antimony, arsenic, beryllium, chromium, manganese, nickel, hydrogen fluoride and chlorine. These emissions are required by EPA and MDE to be monitored or tested periodically to ensure the emission guidelines are met. EPA and MDE chose these specific pollutants for monitoring to assure air quality measures are met. Fort Detrick follows Clean Air Act and state regulations. EPA and MDE periodically reviews emerging contaminants of concern. Either regulatory agency may update regulations with revised emission limitations or monitoring requirements.
8. **I'd like to better understand the operations of the old incinerator, both over its lifespan and two years ago. Could the previous Environmental Assessment or similar documents from the old incinerator (relevant permits and reports, and pollution monitoring data) be made available to the public as part of this process?** The decision was made to close the incinerators due to the effort needed to maintain old and outdated process equipment while demonstrating compliance with emission limitations. Please contact Fort Detrick PAO ([usarmy.detrick.usag.mbx.pao@mail.mil](mailto:usarmy.detrick.usag.mbx.pao@mail.mil); 301-619-2018) for information regarding the closed incinerators.
9. **How large is the facility intended to be? Will it be built to accommodate future needs?** The new HMIWI facility would be appropriately sized and have two HMIWI units that would meet all applicable Installation, local, state, and federal regulations, and would be used to treat all regulated medical research waste generated at Fort Detrick.
10. **Will medical waste be shipped into the facility from any other location? Some incinerators require a minimum amount of waste to make the burning process efficient and cost effective, and this can result in a need for waste to be brought in.** The incineration facility will be scaled to meet regulated medical waste generated on Fort Detrick. Regulated Medical waste generated outside of Fort Detrick will not be treated at the new incineration facility.
11. **Are there other acceptable methods to manage medical waste? How do they compare to incineration?** Incineration is required for the Army to meet operational security responsibilities and interagency homeland security functions in accordance with Army policy (MEDCOM Regulation 40-35).
12. **What is emitted from the stack when medical waste is burned?** The types of emissions from an incinerator can be found in EPA's New Source Performance Standards emission guidelines. It includes cadmium, carbon monoxide, hydrogen chloride, lead, mercury, nitrogen oxides, particulate matter, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (known as dioxins and furans), and sulfur dioxide. Additionally, Maryland's Air Toxic Regulations also lists polychlorinated biphenyls, antimony, arsenic, beryllium, chromium, manganese, nickel, hydrogen fluoride and chlorine. These emissions are required by EPA and MDE to be continuously monitored or tested periodically to ensure the emission guidelines are met.
13. **Is the resulting ash toxic in any way? If so, how will it be handled?** Ash from the incinerator will be tested utilizing EPA Toxicity Characteristic Leaching Procedure (TCLP) to determine proper disposal. If TCLP analytical results are below the TCLP D-list maximum contamination levels (MCLs) the waste can be accepted at the Resource Conservation and Recovery Subtitle D municipal waste landfill on site. If they are above these levels the waste must be taken to a permitted hazardous waste disposal facility.



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14. **What type of emissions are expected from the incinerator?** The types of emissions from an incinerator can be found in EPA's New Source Performance Standards emission guidelines. It includes cadmium, carbon monoxide, hydrogen chloride, lead, mercury, nitrogen oxides, particulate matter, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (known as dioxins and furans), and sulfur dioxide. Additionally, Maryland's Air Toxic Regulations also lists polychlorinated biphenyls, antimony, arsenic, beryllium, chromium, manganese, nickel, hydrogen fluoride and chlorine. These emissions are required by EPA and MDE to be continuously monitored or tested periodically to ensure the emission guidelines are met.
15. **How much waste will be disposed of in the incinerator?** Approximately 800,000 pounds of waste will be processed each year.
16. **Will only medical waste be put in the incinerator? What does Fort Detrick due with "regular" municipal waste?** Only regulated medical waste will be disposed of in the incinerator. Municipal waste will continue to be disposed of in an off-site landfill.
17. **Will deceased animals be disposed of in the incinerator?** All regulated medical waste generated at Fort Detrick will be disposed of in the incinerator in accordance with EPA and MDE regulations.
18. **The public wants to be notified early. What type of notification system will be in place?** The notification procedures will be documented as part of the MDE permitting process. All notifications are publicly available.
19. **How soon will the public and stakeholders be notified after exceedances?** The notification procedures will be documented as part of the MDE permitting process. MDE will be notified in accordance with the terms and conditions of the permit. All notifications are publicly available through MDE.
20. **What type of particulate will be emitted?** In general, in medical waste incinerators, particulate matter is emitted as a result of combustion of organic material and by entrainment of noncombustible ash from the movement of combustion gases. Particulate may be a solid or aerosol and may contain metals, acids or organics. Particulate controls will be installed to ensure the incinerator meets all regulations and emission limitations.

Point of Contact: U.S. Army Corps of Engineers at [FortDetrick\\_NEPA@usace.army.mil](mailto:FortDetrick_NEPA@usace.army.mil) or 301-619-2018

