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GRC Environmental Programs Manual—Chapter 10

Solid Waste

Approved by: Energy and Environmental Management Office Chief

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**NASA - Glenn Research Center
Cleveland, OH 44135**

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Change Record

Revision	Effective Date	Expiration Date	C-25, Change Request #	Description
A	4/2015	10/2016		Table of Contents, Section 5.5, and Appendix A - Changed "Safety, Health and Environmental Division" to "Energy and Environmental Management Office" Table of Contents and Section 5.1 – Changed "Waste Coordinator" to "Waste Manager" Section 6.1.2, 6.1.4, and Appendix A - Added the term "non-routine waste". Updated references to executive orders throughout the document Updated links and corrected form names.

***Include all information for each revision. Do not remove old revision data. Add new rows to table when space runs out by pressing the tab key in the last row, far right column.*

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Chapter 10.—Solid Waste

NOTE: This chapter is maintained and approved by the Energy and Environmental Management Office (EEMO). The last revision date of this chapter was March 2015. The current version is maintained on the Glenn Research Center internet at <http://www.grc.nasa.gov/WWW/FTD/EEMO/index.html>. Approved by: Chief of Energy and Environmental Management Office.

1.0 PURPOSE

This chapter establishes policies and procedures for the reduction, reuse, recycling, and disposal of solid waste at Glenn Research Center (GRC).

2.0 APPLICABILITY

This chapter is applicable to all civil servant and contractor employees assigned to GRC sites and to any NASA-controlled, government-owned facilities associated with GRC.

3.0 BACKGROUND

Federal Government Agencies are driven by Executive Orders to reduce solid waste generation. The Resource Conservation and Recovery Act (RCRA), established in 1976, gave the Environmental Protection Agency (EPA) authority to regulate hazardous waste from generation to disposal. RCRA also sets the groundwork for nonhazardous solid waste management. In 1984, amendments to the RCRA known as the Hazardous and Solid Waste Amendments (HSWA) were implemented. Among other things, these amendments gave greater enforcement authority to the EPA and phased out the land disposal of hazardous waste.

4.0 POLICY

It is the policy of GRC to reduce solid waste by finding and using methods of reuse and recycling for all discarded materials; to comply with all Federal, State, and local regulations governing the generation, storage, shipment, and disposal of solid waste; and to conserve resources.

5.0 RESPONSIBILITIES

5.1 Energy and Environmental Management Office (EEMO) Waste Manager

The Energy and Environmental Management Office (EEMO) waste manager supports the Solid Waste Program by providing guidance on what materials are acceptable to be placed in solid waste collection dumpsters.

5.2 Chief of the Logistics and Technical Information Division

The Chief of the Logistics and Technical Information Division (LTID) provides storage/shipping containers for solid waste generated at GRC and PBS, including trash and scrap metal dumpsters.

5.3 Property Disposal Officer

The Property Disposal Officer prepares and awards contracts for precious and nonprecious metal recycling and paper recycling.

5.4 Recycling Coordinator

The Recycling Coordinator plans and administers cost-effective recycling programs at GRC.

5.5 Chief of the Energy and Environmental Management Office

The Chief provides regulatory advice to the Facilities Division on solid waste disposal and to the LTID on recycling matters.

5.6 Glenn Research Center and Plum Brook Station Employees

Employees at GRC and PBS are the end users of the solid waste program. Employees are responsible for the correct disposition of the waste that they generate. The first option for employees that generate solid waste must be to reuse

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or to recycle it. Employees need to be aware of the types of materials and which are or are not appropriate for disposal in trash dumpsters and for placement in scrap metal containers. See Section 6.0 for material guidance.

6.0 REQUIREMENTS

NOTE: The following requirements are intended for general guidance only in the use of trash and scrap metal containers located throughout GRC. They do not replace the need to obtain a detailed review of the materials being considered for disposal. Questions concerning the disposal of any material or item should be directed to Waste Management at 3-2124.

6.1 Solid Waste Disposal (*Department of Defense 6050.5, Defense Reutilization and Marketing Service—M 6050.1, Executive Order 13693, Public Law 94-580 as amended, Ohio Revised Code Title 37 Chapter 3734, GRC Environmental Programs Manual, Chapters 5, 6, and 23*)

6.1.1 Items Generally Acceptable for Disposal in Trash Dumpsters

- Bottles—Empty or contain only materials that are acceptable for trash dumpster disposal (must be less than 5-gallon size)
- Cans—Empty or contain only materials that are acceptable for trash dumpster disposal (must be less than 5-gallon size or flattened to eliminate void space)
- Disposable Freon containers—Completely empty and valve assembly removed
- Floor sweepings
- Landscaping debris
- Garbage
- Paint cans—Empty or contain only dried-out portions of water-based paint and no free liquid
- Boards and other scrap lumber (provided they are placed on the ground near the trash dumpster)

6.1.2 Items Generally Not Acceptable for Disposal in Trash Dumpsters

- Liquids—Any material that is a liquid or releases a free liquid
- Corrosives
- Batteries
- Chemicals
- Combustible or ignitable materials
- Compressed gas cylinders
- Compressors
- Fuels
- Light bulbs—Including, but not limited to, fluorescent, metal halide, mercury, or sodium vapor bulbs
- Light fixture ballasts
- Lumber or wood—Other than tiny pieces included in floor sweepings (see the special note about boards and other scrap lumber above)
- Metal—Recyclable
- Non-routine waste—Contact Waste Management to determine if your waste is considered non-routine.
- Combustible or pyrophoric metals
- Oil

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- Oil-, solvent-, or fuel-soaked rags—Contain free liquid
- Pallets
- Paint cans—Not empty and contain liquid paint of any type or contain solid (dried-out) oil-based paint
- Powdered metals
- Solvents—Recyclable materials
- GRC bar-coded chemical containers
- Hazardous waste—As defined in Environmental Programs Manual, Chapter 5

6.1.3 Items Generally Acceptable for Disposal in Scrap Metal Collection Containers

- Electrical wire
- Electric motors—Can be put in scrap metal collection containers but are typically segregated from general scrap metal where possible
- Steel bars, sheets, pipes, tubes, scraps, cuttings, etc.

6.1.4 Items Generally Not Acceptable for Disposal in Scrap Metal Collection Containers

- Any device, equipment, or container that contains asbestos, refractory ceramic fibers, polychlorinated biphenyls (PCBs), chemicals, and solid or hazardous waste
- Anything that contains a liquid
- Anything that can spill or leak onto the ground
- Appliances—Items that often have compressors and ballasts, which contain PCBs and frequently other objectionable materials
- Batteries
- Compressed gas cylinders
- Disposable Freon containers
- Drums—Recycled through a licensed-drum recycler
- Grease, oil, fuel, etc.
- Lead cuttings, borings, turnings, or grinding dust
- Non-routine waste—Contact Waste Management to determine if your waste is considered non-routine.
- Organic material
- Paint cans—Contain paint residue
- Reactive metals—Such as magnesium or other hazardous metals
- Solid waste—Glass, paper, cardboard, plastic, roofing, rubber, or garbage
- Hazardous waste—As defined in Environmental Programs Manual, Chapter 5

7.0 RECORDS

- Solid Waste Disposal Totals.—Maintained by Contracting Officer’s Technical Representative (COTR) of LTID Recycling and Solid Waste Removal Contract.

8.0 REFERENCES

Document number	Document name
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DOD 6050.5 U.S.	Government Disposal Methods Guidelines
DRMS–M6050.1	Environmental Compliance for the DRMS Hazardous Property Program, June 1990 edition
Executive Order 13693	Reducing Greenhouse Gas Emissions in the Federal Government and Across the Supply Chain, March 2015
NPD 8500.1	NASA Environmental Management
ORC Title 37, Chapter 3734	Ohio Solid and Hazardous Waste Disposal Law
P.L 94–580 as amended	The Resource Conservation and Recovery Act (RCRA) of 1976

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APPENDIX A.—DEFINITIONS AND ACRONYMS

Chemical Management System (CMS)

Contracting Officer’s Technical Representative (COTR)

Defense Reutilization and Marketing Service (DRMS)

Department of Defense (DOD)

Energy and Environmental Management Office (EEMO)

Environmental Protection Agency (EPA)

Facilities Division (FD)

Glenn Research Center (GRC)

Hazardous and Solid Waste Amendments (HSWA)

Logistics and Technical Information Division (LTID)

NASA Policy Directive (NPD)

Non-routine waste.—Waste that is subject to additional storage, shipping, and/or disposal regulations and requires input from Waste Management.

Ohio Revised Code (ORC)

Plum Brook Station (PBS)

Polychlorinated biphenyl (PCB)

Pyrophoric metals.—Pyrophoric metals or alloys are solids that are liable to spontaneously ignite when exposed to air. In contact with water they are liable to evolve hydrogen, which is very flammable and could further intensify a fire.

Resource Conservation and Recovery Act (RCRA)

Solid waste.—A solid waste is a material that, in general practice, is any discarded material not specifically excluded by the Resource Conservation Recovery Act (RCRA). A discarded material is any material (solid, liquid, or contained gas), which is abandoned (disposed, burned, or incinerated), recycled, or considered inherently waste-like. Basically, any material that does not have a continuing usefulness and is being discarded may be defined as a solid waste.

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