

# Hampton Roads Public Works Academy

## Waste Management

### Outline

Updated 2015

#### **Objective:**

This session provides introductory information on the various careers available in the field of Waste Management. Specific instruction will be provided on: waste collection, waste disposal, recycling, safety and the careers associated with each function.

#### **Course References:**

Complete Handbook Solid Waste Collection & Transfer- By H. Lanier Hickman, Jr.

American Alchemy, The History of Solid Waste Management in the United States-By H. Lanier Hickman, Jr.

Manual of Recommended Safety Practices, Environmental Industry Associations

- I. Introduction of subject and instructor ( 5 Minutes)
  
- II. Waste Collection (30 Minutes)
  - A. Types of waste collected.
  - B. Types of collection containers
  - C. Types of collection vehicles
  - D. Laying out schedules and routes
  - E. Interaction with the public
  - F. Concerns and liabilities
  - G. Staffing requirements
  - H. Private versus public collection
  
- III. Waste Disposal (30 Minutes)
  - A. Transfer stations
  - B. Regional cooperatives
  - C. Types of landfills
  - D. Landfill permitting and design
  - E. Landfill operations
  - F. Environmental issues
  - G. Concerns and liabilities
  - H. Staffing requirements

- IV. Recycling (30 Minutes)
  - A. Types of recyclable materials and value.
  - B. Different methods of collections
  - C. Different recycling systems used regionally
  - D. Different methods of processing materials
  - E. Composting and mulching
  - F. Power and steam generation
  - G. Public versus private operation
  - H. Environmental issues
  - I. Concerns and liabilities
  - J. Staffing requirements
  
- V. Safety (30 Minutes)
  - A. Top Ten Most Dangerous Job in America
  - B. Safety in The Waste and Recycling Industry
  - C. Overview of Industry Standards
  - D. Overview of Transportation Safety Regulations
  - E. Staffing requirements
  
- VI. Review (20 Minutes)
  - A. Comments, Questions and Answers
  - B. Written Exam

Total Class Time 2 Hours 20 Minutes.

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**Quiz**

**Circle the appropriate answer.**

- 1. Who is the 2014 APWA Solid Waste Professional Manager of the Year?**
  - A. Buck Owens**
  - B. Little Wayne**
  - C. Harvey Howard**
- 2. What is the most efficient type of waste collection vehicle?**
  - A. Boom Truck**
  - B. Rear Loader**
  - C. Automated Truck**
- 3. What type of gas is generated from landfills?**
  - A. Carbon Dioxide**
  - B. Sodium**
  - C. Methane**
- 4. Which of the following is not a recycling collection method?**
  - A. Automated**
  - B. Manual**
  - C. Littering**
- 5. Which one below is the in the Top Ten most dangerous jobs in America?**
  - A. Policeman**
  - B. Firefighter**
  - C. Garbage collector**

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**Quiz**

**Answer Key**

- 1. C**
- 2. C**
- 3. C**
- 4. C**
- 5. C**