

SOLID WASTE

Objective:

This session provides introductory information on the various careers available in the field of Solid Waste Management. Specific instruction will be provided on: waste collection, waste disposal and recycling. (8 hours)

- I. Introduction of subject and instructor
- II. Waste Collection
 - A. Types of waste collected
 - B. Types of collection containers
 - C. Types of collection vehicles in use
 - 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
 - A. Transfer stations
 - B. Regional cooperatives
 - C. Types of landfills
 - D. Landfill permitting and design
 - E. Landfill operations
 - F. Waste processing plants
 - G. Waste incinerators
 - H. Private versus public landfill operation
 - I. Environmental issues
 - J. Concerns and liabilities
- IV. Recycling
 - A. Types of recyclable materials and value
 - B. Different methods of collection
 - 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

V. Field trip

A. Visit Refuse Derived Fuel (RDF) Plant and Incinerator in Portsmouth

VI. Review

A. Questions and Answers

B. Written Test

Waste Management

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 and recycling. (3 hours for recruiting, 8 hours for class)

- I. Introduction of subject and instructor
- II. Waste Collection
 - A. Types of waste collected
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 - C. Types of collection vehicles in use
 - D. Laying out schedules and routes
 - E. Interaction with the public
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 - 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
- V. Field Trip (8 hour class only)
 - A. Visit Refuse Derived Fuel (RDF) Plant and Incinerator in Portsmouth
 - B. Visit Virginia Beach Waste Management Facilities
- VI. Review
 - A. Comments, Questions and Answers
 - B. Written Test

Hampton Roads Public Works Academy

Waste Management

Quiz

February 4, 2003

Circle the appropriate answer.

1. What is the most efficient type of waste collection vehicle?
 - A. Boom Truck
 - B. Rear Loader
 - C. Automated Truck

2. What is the most common routing strategy?
 - A. Divide routes by street intersections.
 - B. Have mostly right-hand turns.
 - C. Divide routes by waterways.

3. What type of gas is generated from landfills?
 - A. Carbon Dioxide
 - B. Sodium Chloride
 - C. Methane

4. Which of the following is not a recycling collection method?
 - A. Automated
 - B. Manual
 - C. Littering

5. Why is recycling most important?
 - A. It reduces the waste stream.
 - B. It destroys natural resources.
 - C. It creates jobs.

Hampton Roads Public Works Academy

Waste Management

Quiz

February 4, 2003

Answer Sheet

Circle the appropriate answer.

1. What is the most efficient type of waste collection vehicle? C
 - A. Boom Truck
 - B. Rear Loader
 - C. Automated Truck

2. What is the most common routing strategy? B
 - A. Divide routes by street intersections.
 - B. Have mostly right-hand turns.
 - C. Divide routes by waterways.

3. What type of gas is generated from landfills? C
 - A. Carbon Dioxide
 - B. Sodium Chloride
 - C. Methane

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 - A. Automated
 - B. Manual
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Environmental Quality

Hampton Roads Sanitation District

in cooperation with the

Public Works Academy & TCC – January 2003



EQ: Course Description

- An overview of our environment and importance of EQ. Public utilities role in protecting the environment through the performance of environmental monitoring.

EQ: KSA'S

- Knowledge of EQ
 - Importance of EQ & PUs role in EQ
- Skills required for basic data collection
 - list EQ Investigators KSAs
- Attitude of Integrity
 - EQ sampling data requires COC and certification of truth & accuracy

Intro EQ

- Protecting the environment important because one's standard of living is not solely determine by \$\$\$
- Public utilities have a role in protecting the environment
- Public utilities are required to meet environmental standards set by Local, State or Federal env. protection agencies/govt

EQ Monitoring

- Industrial Waste monitoring protects our facilities and the environment
- Commercial facilities may require pretreatment
- Storm Water is a significant cause of degraded water quality
- Many local areas have begun monitoring for illicit dischargers

EQ Monitoring

- Clean Air is equally as important – we consume roughly 800x more air than water
- Clean Air Act amendments implemented to protect air quality
- National Ambient Air Quality Standards – particulate matter, carbon monoxide, nitrous dioxide, sulfur dioxide, ozone, and lead
- National standards monitored by EPA Office of Air

EQ Review

- Revisit EQ importance & PU role
- Discuss environmental sampling, protection, and public utility workers job including env. sampling and analysis. Field data sheets and chain of custody.
- Employment with public utilities will often involve environmental work and some strictly EQ jobs are available

Environmental Quality Quiz

Name _____

Date _____

Circle the correct answers

1. Environmental protection is important because we need:
 - a. Clean air to breath
 - b. Clean water to drink
 - c. Both (a) and (b)
 - d. More outbreaks of diseases

2. Areas that Public Utilities work in protecting the environment and public health include:
 - a. Air and water quality
 - b. Drinking water
 - c. Solid waste
 - d. All of the above

3. Public utilities and Private Industry are required to meet environmental standards set by:
 - a. EPA
 - b. VA DEQ
 - c. Local Government
 - d. All of the above

4. How do Public Utilities measure environmental protection performance:
 - a. Inspection
 - b. Monitoring
 - c. Sampling
 - d. All of the above

5. Which of the following are ways that we can protect the environment at home:
 - a. Proper trash disposal & recycling
 - b. Dumping oil in storm drain
 - c. Over fertilizing the yard
 - d. None of the above

Environmental Quality Quiz (answer sheet)

Name _____

Date _____

Circle the correct answers

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 - a. Clean air to breath
 - b. Clean water to drink
 - c. **Both (a) and (b)**
 - d. More outbreaks of diseases

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 - a. Air and water quality
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5. Which of the following are ways that we can protect the environment at home:
 - a. **Proper trash disposal & recycling**
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 - c. Over fertilizing the yard
 - d. None of the above