



Wastewater Collection System Examination Need to Know Criteria

The Ohio Wastewater Collection System examinations are designed to evaluate the ability of an examinee to operate a wastewater collection/sewerage system in the state of Ohio. In order to successfully complete an examination, an operator must demonstrate a broad knowledge of the areas covered by this document. Due to the fact that a certificate allows an operator to be in responsible charge of any wastewater collection/sewerage system in the state with the same or lower classification, the exams may include technologies that are not used in each system but are commonly used at wastewater collection/sewerage systems throughout the state of Ohio. The Advisory Council of Examiners along with a number of interested party groups developed these criteria to serve as a study guide for each level of certification.

Class I Wastewater Collection System Examination Topics

1) Safety

- a) OSHA Requirements Chemical Hazards
- b) Confined Space Procedures
- c) Electrical Hazards
- d) Lockout/Tagout Procedures
- e) Bloodborne Pathogen Hazards
- f) Personal Protection Equipment
- g) Atmospheric Hazards
- h) Traffic Control
- i) Excavation Procedures

2) Operation and Maintenance

- a) Pump Stations
 - i) Types of Pump Stations
 - ii) Types of Pumps
 - iii) Emergency Power
- b) Preventive Maintenance
 - i) Collection System
 - ii) Pump Stations
- c) Corrective Maintenance
 - i) Collection System
 - ii) Pump Stations
- d) Record Keeping
- e) Infiltration-Inflow
 - i) Inspection
 - ii) Testing
 - iii) Prevention
- f) Odor Control
- g) Corrosion Control
- h) Septic Conditions

3) Regulations/Guidance

- a) NPDES Permit (general questions)
- b) Certified Operator (OAC 3745-7)
- c) Permit to Install
- d) Ten States Standards
- e) Combined Sewer Overflows
- f) Sanitary Sewer Overflows

4) Management

- a) Job Duties
- b) Reporting
- c) Communications
- d) Public Relations
- e) Security

5) Mathematics

- a) Operation and Maintenance Costs
- b) Flow Velocity
- c) Flow Volume
- d) Design Flow
- e) Peak Flow
- f) Pumping Rate

Class II Collection System Examination Topics

1) Safety

- a) OSHA Requirements Chemical Hazards
- b) Confined Space Procedures
- c) Electrical Hazards
- d) Lockout/Tagout Procedures
- e) Bloodborne Pathogen Hazards
- f) Personal Protection Equipment
- g) Atmospheric Hazards
- h) Traffic Control
- i) Excavation Procedures

2) Operation and Maintenance

- a) Pump Stations
 - i) Types of Pump Stations
 - ii) Types of Pumps
 - iii) Emergency Power
 - iv) Pump Control Methods and Procedures
 - v) Force Main Capacity vs. Head Relationships
- b) Preventive Maintenance
 - i) Collection System
 - ii) Pump Stations
- c) Corrective Maintenance
 - i) Collection System
 - ii) Pump Stations
- e) Record Keeping
- f) Infiltration-Inflow
 - i) Inspection
 - ii) Testing
 - iii) Prevention
- g) Odor Control
- h) Corrosion Control
- i) Septic Conditions
- j) Electrical Usage
- k) Management System
- l) Telemetry

3) Regulations/Guidance

- a) NPDES Permit (general questions)
- b) Certified Operator (OAC 3745-7)
- c) Permit to Install
- d) Ten States Standards
- e) Combined Sewer Overflows
- f) Sanitary Sewer Overflows
- g) Sewer Use Ordinances
- h) Industrial Pretreatment/Local Limits

4) Management

- a) Job Duties
- b) Reporting
- c) Communications
- d) Public Relations
- e) Security
- f) Financial Management
- g) Planning

5) Mathematics

- a) Operation and Maintenance Costs
- b) Flow Velocity
- c) Flow Volume
- d) Design Flow
- e) Peak Flow
- f) Pumping Rate
- g) Water HP, Brake HP, Motor HP, and % Efficiency
- h) Pressure and Head
- i) Slope or Grade
- J) Wet Well Fill Rate