OPERATOR NEED-TO-KNOW
WASTEWATER COLLECTION
CLASS 1

SKILL LEVEL REQUIREMENTS

A. Know the sources and characteristics of sewage.
B. Know the sanitary aspects of sewage such as disease, transmission, and pollutant effects.
C. Know the types of pumps use in sewage pumping, advantages and disadvantages.
D. Know the safety aspects of working around sewage, collection systems and treatment plants.
E. Know the hydraulics of a collection system.
F. Know the operation and maintenance of different types of pumps, motors and controls of small systems.
G. Know the hazards of cross connections and be able to identify and correct those common in sewer systems.
H. Know the different types of lift stations and advantages or disadvantages of each.
I. Know the features of a maintenance program for a system of this size.
J. Know simple Math formulas.
K. Know the various types of materials, joining methods common in systems of this class.
L. Know the proper safety procedures for underground repair and maintenance.
OPERATOR NEED-TO-KNOW
WASTEWATER COLLECTION
CLASS 2

SKILL LEVEL REQUIREMENTS

A. Know all the skills required in the lower class.
B. Know the advantages and disadvantages of the various types of pumps.
C. Know how to determine the capacity of a lift station wet well.
D. Know various methods of testing sewer lines for leaks.
E. Know the various methods of cleaning sewer lines.
F. Know how to determine the carrying capacity of lines.
G. Know the various types of controls for lift stations in this class.
H. Know how to read blueprints and system maps.
I. Know the various types of line rehabilitation.
J. Know how to prepare budgets and other reports for this size system.
K. Know math skills appropriate for this level.
L. Know how to read and interpret pump operating curves.
OPERATOR NEED-TO-KNOW
WASTEWATER COLLECTION
CLASS 3

SKILL LEVEL REQUIREMENTS

A. Know all the skills required in lower classes.
B. Know how hydraulics of a collection system, especially size, slope and flow interrelationship.
C. Know the maintenance and operational features of pumps motors and controls common to this class.
D. Know how to check lines for proper line and grade.
E. Know how to determine I & I flows into sewer system.
F. Know how to calculate pumping rates from fill or draw downs in wet wells.
G. Know how to set up a safety program for lift station and collection system personnel.
H. Know how to prepare budgets and other reports for this size system.
I. Know the features of a maintenance program for this size system.
J. Know the methods of identifying and controlling odor problems in the system.
K. Know the proper methods of dealing with public complaints.
L. Know math skills appropriate for this level.
OPERATOR NEED-TO-KNOW
WASTEWATER COLLECTION
CLASS 4

SKILL LEVEL REQUIREMENTS

A. Know all skills required in lower classes.
B. Know how to prepare specifications for retrofit, repair or replacement of sewer lines, lift stations.
C. Know how to set up a preventative maintenance program for this class system.
D. Know how to determine proper size of lines, pumps and controls for this class system.
E. Know how to prepare budgets and other reports for this size system.
F. Know how to interpret the results of I & I testing.
G. Know how to read and interpret the results of televised lines.
H. Know math skills appropriate for this level.