

DACUM Research Chart for Collection System 2 Operator

Produced for



DACUM Panel

Dave Crouch, Public Infrastructure Specialist
Bayer Becker Engineers
Oxford, OH

Michael Dryhurst, Wastewater Treatment Operator III
Portage County
Ravenna, OH

Mitch Reese, Water Distribution/Wastewater Collection
Superintendent
City of Wadsworth
Wadsworth, OH

Brian Stapleton, Assistant Superintendent of
Maintenance Services
Northeast Ohio Regional Sewer District
Cuyahoga Heights, OH

Erin Stefek, Assistant Manager
City of Elyria
Elyria, OH

Produced by



DACUM Facilitators

Jennifer Carroll
Emma Lawson
Cheryl Olson
Wilson Wang
Tina Wagner, Team Leader

DACUM International Training Center

Columbus, OH

March 16-17, 2017

General Knowledge and Skills

Knowledge

Basic algebra
Basic geometry
Basic electrical
Basic mechanical
Company policies and procedures
EPA Regulations - Sewer Code
Safety practices
Lock out/tag out procedures
Trenching/excavation methods & practices
Biohazards
PPE
Traffic control methods & procedures
Environmental awareness
Schematic/blueprint reading
CDL certification requirements
Heavy equipment operation
Scaffolding assembly procedures
Ladder erection procedures

Skills

Problem solving
Time management
Analytical
Communication
Interpersonal
Decision-making
Multi-tasking

Behaviors

Emotionally intelligent
Patient
Dependable
Honest
Ethical
Safety oriented
Process oriented
Detail oriented
Reliable
Analytical
Friendly
Accurate
Professional
Sense of humor
Team player
Iron constitution
Goal oriented
Flexible
Conscientious
Energetic
Self starter
Composed
Competent
Mechanically inclined

*Collection System Programs

Support Energy Conservation
Support Green
Record Drawing/As-Built
Odor Control
CMOM
Emergency Response
I&I
Root Control
Safety
 Lock Out/Tag Out
 Confined Space
FOG
Storm Water MS4
Industrial Pre-treatment
TV
Flush
Asset Management
Support Hydraulic Modeling

Tools, Equipment, Supplies and Materials

Vac truck
Bucket truck
Scissor lift
Personal lift
Easement machine
Forklift
Traffic control equipment
Sewer rodder machine
CCTV
Backhoe
Service truck
Excavator
Dump truck
Survey equipment
Telemeter equipment
Basic hand tools
Computer/software
Lateral camera
Safety tools
Cutting tools
Locators
Metal detectors
Cell phone
GPS
Portable radios
PPE
Ladders
Smoke generators
Small siphon equipment
Sewer plugs
Testing equipment
Pig cleaner
Sewage pumps
 Centrifugal
 Progressive cavity
Screw
Ejector
Piston
Submersible
Multi-State

Future Trends and Concerns

Increased utility costs
Aging Infrastructure
Urban sprawl
Lack of qualified applicants
More diverse workforce needed
Doing more with less
More restrictive EPA regulations
Unfunded mandates
Rapidly changing technology=speedy obsolescence
Waste disposal cost increases
Aging workforce
Increased privatization of utility segments
Troublesome labor/management relations
Eroding benefits
Terrorist threats

Acronyms

GPS	Global Positioning System
PPE	Personal Protective Equipment
SOP	Standard Operating Procedures
ODNR	Ohio Dept. of Natural Resources
LOTO	Lock Out/Tag Out
PM	Preventive Maintenance
OEPA	Ohio Environmental Protection Agency
WEF	Water Environment Federation
NIMS	National Incident Management System
OUPS	Ohio Utility Protection Service
SCADA	System Control and Data Acquisition
CCTV	Closed Circuit Television
OTCO	Operator Training Committee of Ohio
EOP	Emergency Operation Plan
SDS	Safety Data Sheets
CID	Capital Improvement Program
CSO	Combined Sewer Overflows
I&I	Inflow and Infiltration
FOG	Fat, Oil & Grease
CMOM	Capacity Management, Operations and Management