Appendix F

ST. MARY'S COUNTY
METROPOLITAN COMMISSION

STANDARD PROCEDURES & POLICIES

SP Number:	Approval Date: 04.01.2024 Revision Dates:	Effective Date: 4.01.2024
OPS-24-074	Approved by: E. Hogan	

SUBJECT: SANITARY SEWER OVERFLOW RESPONSE ANNUAL TRAINING

Objectives:

The objective of staff training is to educate employees involved in implementing the SSOERP plan on how to perform and document the procedures in the program. This procedure outlines training sessions focused on developing the knowledge base for staff responsibilities and execution of their duties. The training provides instructions to Operations Staff on how to better communicate with people reporting SSOs. The training also includes guidance for Operations Staff on how to respond properly and effectively to SSO events, perform adequate cleanup, and mitigate the potential impacts of SSOs on public health and the environment (e.g., shellfish harvesting, water contact recreation, aquatic life, etc.).

The training aims at informing staff how to identify and resolve deficiencies in the Collection System that could result in SSOs before they actually happen. MetCom identified personnel to receive training in SSO reporting and record keeping, primarily individuals that are First Responders to an SSO event, and the personnel involved in reporting an SSO to the regulatory agencies.

Operations Staff may participate in annual refreshers concerning the SSOERP as well as auditing of the SSOERP for performance improvements identified from field observations.
The Senior Wastewater Collections' Staff may lead the effort to train staff concerning the SSOERP activities and will periodically review field procedures to observe experience demonstrated in the field. From these periodic observations, they will determine how best to construct the training for staff members. The training experts within this department will also track training programs required or completed for the appropriate staff through PeopleSoft or other database tracking tools.

MetCom plans to annually assess staff skills and knowledge as well as preparedness to apply the SSOERP and to also identify skill requirements for future employees and assess the needs for refresher training. Any new equipment that MetCom acquires or method/techniques MetCom would adopt in the future may also create the need for additional training will be coordinated with the Operations' Senior Staff.

Training:
The hazards in the collection systems are many and varied. MetCom staff involved in responding to SSOs may receive the safety and operations training as described herein.

- Sanitary Sewer Overflow Response Procedures
- Sanitary Sewer Overflow Mitigation Techniques
- Sanitary Sewer Overflow Estimation Techniques
- Confined Space Entry Safety Training
- Excavation and Trenching Safety Training
- Hazard Communication Training
- AED/CPR/First Aid Training

Effectiveness of Training:
Training for the selected employees will be tracked and documented. A record of training sessions will document the type of training, instructors' names, date and time, duration, subject and participants. Sign-in sheets and any handouts will be kept on file.

Different approaches may be used to assess improvement in the competency of employees, e.g., informal comments of other employees, on the job observations, staff review sessions with all employees, and reports from peers, managers or customers.

Sanitary Sewer Overflow Training

What you need to know

Why do I need to be trained on SSO's

This Sanitary Sewer Overflow Training helps to protect public health and the environment by training required staff (Operators and/or Superintendents of wastewater collection and treatment facilities) on the response protocol for Sanitary Sewer Overflows.

Maryland Department of the Environment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Why do I need to be trained on SSO's

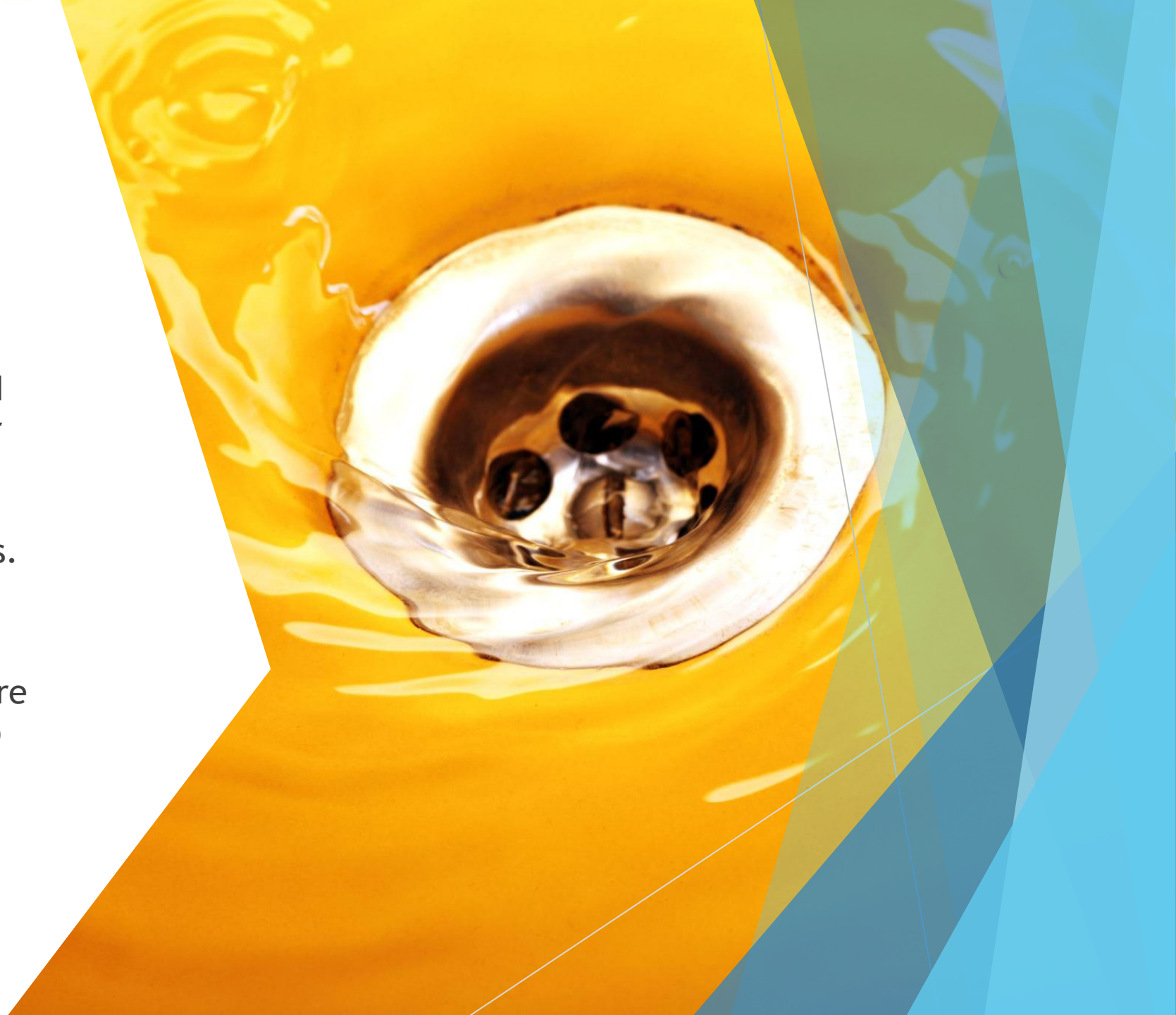
The St. Mary's County Metropolitan Commission operates treatment plants and wastewater pump stations. All of these are governed by various rules and regulations.

- Code of Maryland Regulations (COMAR) Chapter 26.08.10
- Environmental Article, Annotated Code of Maryland
- National Pollutant Discharge Elimination System (NPDES) Permit

What are SSO's?

A sanitary sewer overflow (SSO) is an overflow (or spill) of untreated wastewater from a sanitary sewer system. When an SSO happens, MetCom staff takes it seriously with quick and targeted responses. These actions will help limit the impact on the environment.

Sanitary sewer overflows (SSOs) are releases of untreated sewage into the environment.



In the event of an SSO:

Assess the extent of the spill using best professional judgement and other available resources such as the ***Emergency Response Plan for Sanitary Sewer Overflows***.

Remember anything over 50 gallons that not cleaned up within an hour is considered a spll.

Causes of SSO's

When an SSO occurs, the cause is usually listed as a recent, immediately traceable condition, such as a pipe break or pump failure.

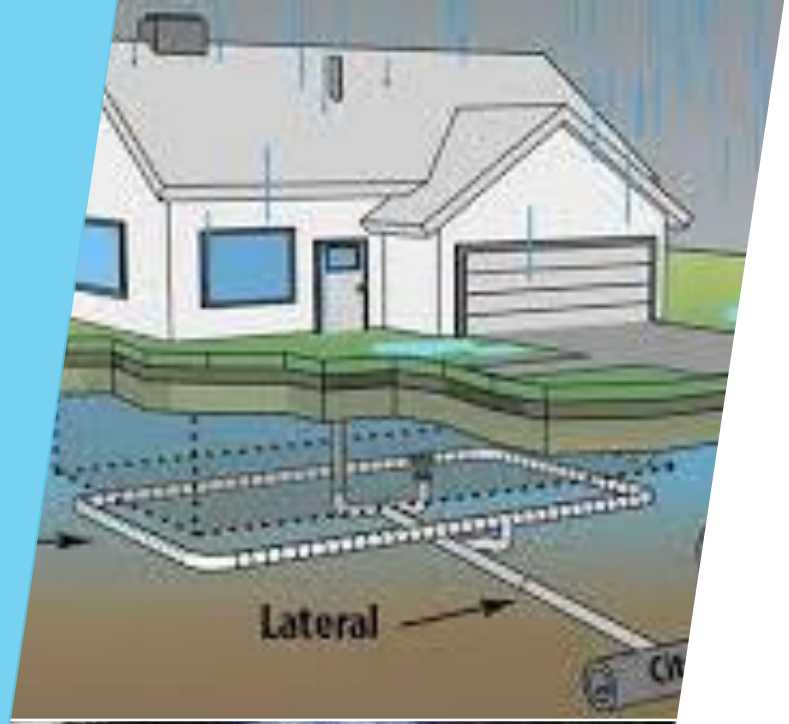
- Sewer overflows are not 100% preventable. Together we can minimize their chances and their impacts.
- Natural causes, accidents, aging infrastructure, or individual behavior can impact the sewer system's performance.
- SSOs can cause short-term harm to the environment or public health, so we have crews available to respond to an SSO 24/7.

Causes of SSO's

The major causes leading to SSOs include age, lack of maintenance, poor operational procedures, and inadequate flow capacity.

Many sewer system failures are attributable to natural aging processes, such as:

- Years of wear and tear on system equipment such as pumps, lift stations, check valves, and other moveable parts that can lead to mechanical or electrical failure;
- Freeze/thaw cycles, groundwater flow, and subsurface seismic activity that can result in pipe movement, warping, brittleness, misalignment, and breakage; and
- Deterioration of pipes and joints due to exposure to saltwater or other corrosive substances.



Causes of SSO's

Other causes of SSO's are:

- Inappropriate materials sent to the sewers – materials such as fats, oils and grease (FOG), and some household products (including some marked 'flushable') such as baby wipes, facial wipes, sanitary pads, and tampons. All of these may create blockages,
- Tree roots entering through defects or openings in a sewer line may cause blockages,
- Leaky sewers – stormwater, ground water and snowmelt entering the sanitary sewer from cracks and faults in the sewer or leaky sewer joints can overload a sanitary sewer,
- Inappropriate connections – Connections of sources of water such as sump pumps, roof leaders, foundation drains and area drains can overload a sanitary sewer,

Causes of SSO's

Operational procedures that lead to SSOs include mistakes, such as accidentally activating a pump without ensuring that all necessary check valves are in position, and disregarding or disconnecting available warning mechanisms, such as warning bells and lights.

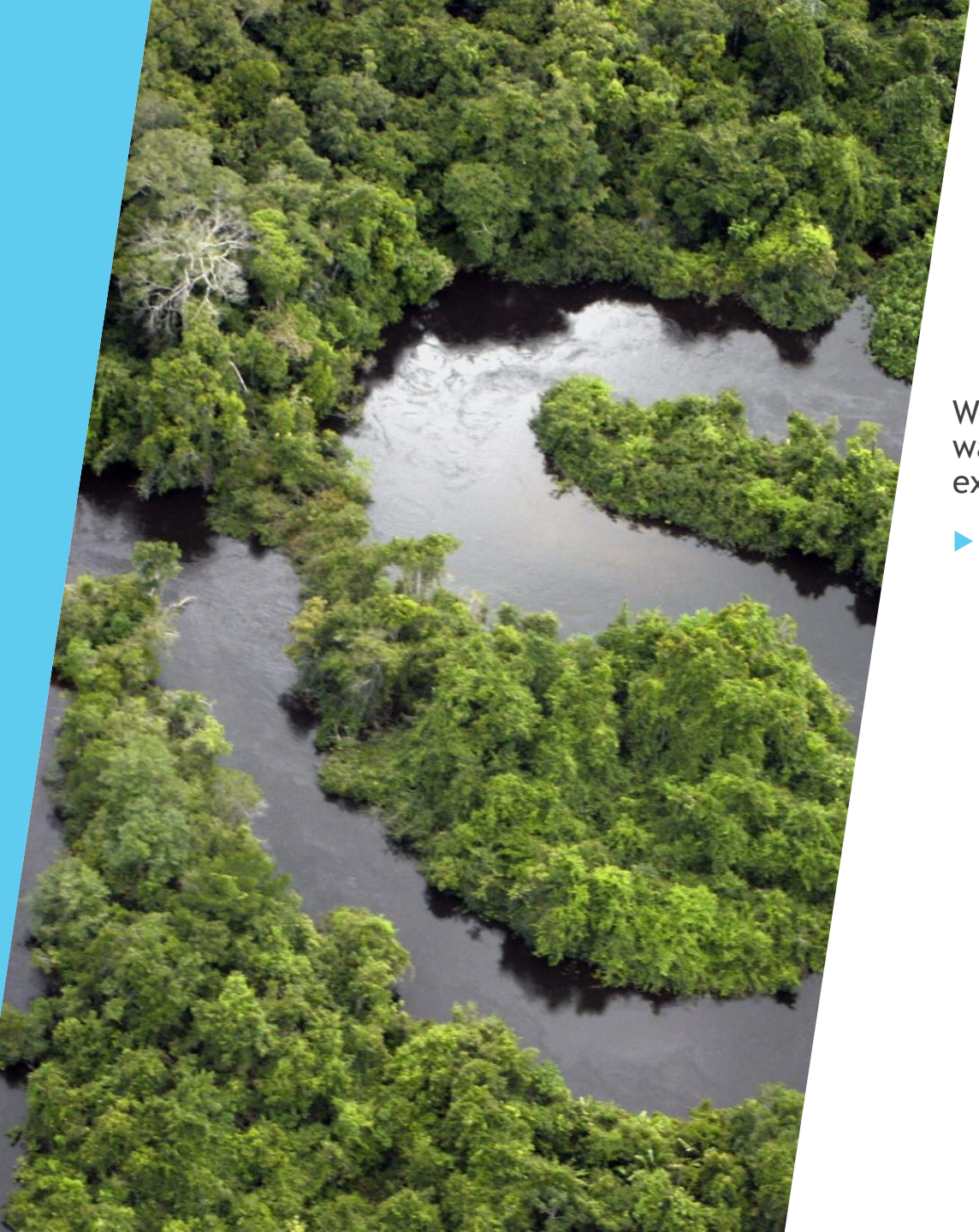
Human Health Impacts of SSO's

Raw sewage contains disease-causing pathogens, including viruses, bacteria, worms, and protozoa. Diseases resulting from enteric pathogens range from stomach flu and upper respiratory infections to potentially life-threatening illnesses such as cholera, dysentery, Hepatitis B, and cryptosporidiosis. Children, the elderly, and people with suppressed immune systems face added risk of contracting serious illnesses.

Human Health Impacts of SSO's

When SSOs contaminate public places and waters of the U.S., people can be at risk of exposure to the untreated sewage when:

- **Swimming in open water**; Between 1997 and 1998, the CDC recorded 1,387 cases of enteric illness contracted during nine outbreaks among swimmers in lakes, ponds, rivers, and canals. Although the source of the pathogens wasn't listed in the CDC survey, the disease-causing organisms were consistent with those found in human sewage, including E. coli, Cryptosporidium, and a Norwalk-like virus (CDC 2000). Health professionals suspect that the actual number of outbreaks resulting from open-water swimming is many times this number, but most cases go unreported.



Human Health Impacts of SSO's

When SSOs contaminate public places and waters of the U.S., people can be at risk of exposure to the untreated sewage when:

- **Drinking from a contaminated community water supply;** In June, 1998, 1,300 people in Austin, Texas fell ill with cryptosporidiosis after an SSO in Brushy Creek flowed through underground fissures into an aquifer supplying five municipal wells (CDC 2000). In September 2000, drinking water alerts were issued to residents of Springfield, Missouri and several neighboring communities when a million-gallon SSO entered Goodwin Hollow Creek, an underground stream that feeds several springs and private water wells (MSNBC 2000).

Human Health Impacts of SSO's

When SSOs contaminate public places and waters of the U.S., people can be at risk of exposure to the untreated sewage when:

- **Eating contaminated fish or shellfish;** Shellfish are bottom-dwelling filter feeders that pass large quantities of water through their systems. They accumulate diseases, bacteria, and biotoxins and pass them on to humans that eat them. Fish that prey oncontaminated shellfish or contract diseases themselves can also make people ill.

In the event of an SSO:

1. Respond
2. Assess
3. Cleanup and Remediate
4. Report

www.metcom.org

ST. MARY'S COUNTY
METROPOLITAN COMMISSION

STANDARD PROCEDURES

SP Number:	Approval Date: 11/03/10 Revision Dates: 11/05/13 2/09/15, 12/08/21, 6/8/23, 2/27/24	Effective Date: February 27,2024
OPS-11-02		

SUBJECT: **SANITARY SEWER OVERFLOWS**

erating Procedure
Overflow Responses

ST MARY'S COUNTY
PUBLIC NOTIFICATION RESPONSE PROTOCOL
For Sanitary Sewer Overflows

Reports to the Public. Per the Code of Maryland Regulations (COMAR) 26.08.10, the owner or operator shall coordinate with the local health officer or environmental health director regarding the content of reports to the public about a sanitary sewer overflow (SSO) in accordance with procedures developed by MDE, in cooperation with the Maryland Department of Health and local Health Department.

Public Notification. Unless advised otherwise in accordance with COMAR 26.08.10.08, the owner or operator shall notify the public as soon as practicable, but **not later than 24 hours** after the time that the owner or operator becomes aware of the SSO incident.

In the event of an SSO:

Respond immediately to the reported location.

In the event of an SSO:

Assess the extent of the spill using best professional judgement and other available resources such as the ***Emergency Response Plan for Sanitary Sewer Overflows***.

Remember, “overflow” does not include:

- anything over 50 gallons that not cleaned up within an hour of its occurrence is considered a spill.
- An overflow or discharge to impervious surfaces that are effectively contained and cleaned up so there is no direct or potential pollution of waters of the state as a result of the overflow or discharge

In the event of an SSO:

Cleanup and Remediate

Clean up the effected area using the recommended methods by the local Health Department and post any required signage.

Follow ***OPS-24-073 Post Remediation SSO investigations and Tracking*** SOP.

In the event of an SSO:

Report the spill to MDE and the Local Health Department immediately.

- Follow all protocols laid out in ***OPS-11-02 Sanitary Sewer Overflow Public Notification Protocols***.
- Follow all protocols laid out in ***OPS-22-01 Sanitary Sewer Overflows Public and Code Red Announcements***
- Fill out and send off 5 day MDE report to MDE and Health Department

In the event of an SSO:

Follow up the spill by using the I&I camera team , if needed.

- Follow all protocols laid out in ***OPS-11-06 Sanitary Sewer Televising Operating Procedures***.
- This follow up will allow Supervisors to determine if further actions (such as jetrodding) is required.

Public and Private Property Damage Impacts of SSO's

Nationwide, an untold number of private basement backups occur each year. In addition to the problem of human exposure, these spills can cause structural damage to building frames and foundations as well as water damage to electrical and gas appliances that are typically located in the basement.

They can also damage or destroy floor and wallcoverings and personal property. The cost of cleaning up a sewage spill has been estimated at between $700 and $4,000 (EPA 1999). SSOs frequently spill into homeowner yards, damaging landscaping, driveways, and outside possessions.

Municipal property damage from a major SSO can be severe. Communities pay billions per year to clean up and repair overflow damage to sewer infrastructure, roads and other transportation assets, parks and recreation areas, and municipal water supplies and treatment facilities.

Public and Private Property Damage Impacts of SSO's

In the event of a potential private property damage situation, immediately report it to your supervisor.

- Field staff should not make any comments to residents regarding liability, that is the responsibility of our insurance company.
- Supervisors should make sure that all potential property claims are documented using the proper incident report form.
- Field staff's responsibility is clearing the blockage (if it's MetCom's responsibility) and thoroughly documenting the incident (location, cause, duration) in Cityworks.

For additional Information on SSO's

Contact the U.S. EPA Office of Wastewater Management at:

Phone : 202-564-9545

Internet: www.epa.gov/npdes/sso

Things you should know…

- We are here to help you with any questions regarding your role in responding to any sanitary sewer overflows. process.
- There are a number of ways to receive additional training.

MARYLAND RURAL WATER ASSOCIATION

CHESAPEAKE WATER ENVIRONMENT ASSOCIATION

MCET environmental, health, and safety training

Certification

What you need to know

Why do I need to be Certified?

This Certification helps to protect public health and the environment by setting minimum education, experience, and examination standards that applicants must satisfy. It is required for operators and/or superintendents of water treatment plants, water distribution systems, wastewater treatment plants, wastewater collection systems, and certain pretreatment facilities that discharge to sanitary sewers, or industrial wastewater facilities.

Maryland Department of the Environment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

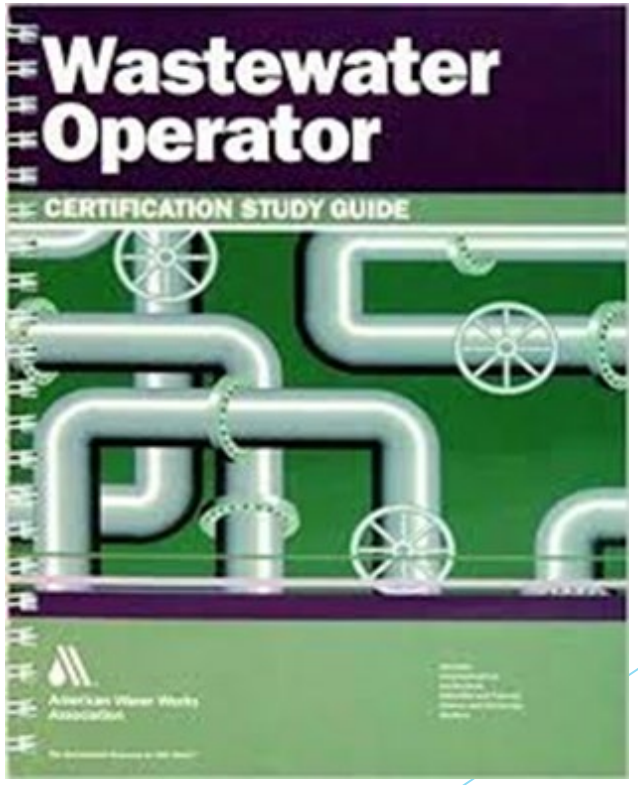
Why do I need to be certified?

The St. Mary's County Metropolitan Commission operates treatment plants, water treatment facilities and wastewater pump station facilities. All of these are governed by various rules and regulations.

- Code of Maryland Regulations (COMAR) Chapter 26
- Environmental Article, Annotated Code of Maryland
- National Pollutant Discharge Elimination System (NPDES) Permit

Why do I need to be certified?

Maryland law (COMAR 26.06.01.05A) and certification regulations require that all operators and superintendents of facilities be certified and defined as "***operators***" and/or "***superintendents***".



Why do I need to be certified?

Title 12 of Environmental Article, Annotated Code of Maryland

- A person or municipal or private corporation may not operate a waterworks, wastewater works, or industrial wastewater works unless the facility is under the responsible charge of a certified superintendent or certified operator (§12-501).
- A person or municipal or private corporation that violates any provision of this title or any rule or regulation adopted under this title is guilty of a misdemeanor…(e)ach day of employment in violation of this title or of any rule or regulation adopted under this title is a separate offense (§12-504).

Why do I need to be certified?

The NPDES Permit issued by MDE also requires that “(t)he permittee shall provide an adequate operating staff qualified to carry out operation, maintenance and testing functions required to ensure compliance with this permit. Superintendents and operators must be certified by the Board of Waterworks and Waste Systems Operators.

Certification

You are defined as an **Operator** if you participate in the operation of:

- a water treatment plant,
- a water distribution system,
- a wastewater treatment plant,
- a wastewater collection system, or
- an industrial wastewater treatment plant (works).

Certification

You are "***participating in the operation of***" one of these facilities, and therefore are considered to be an operator, if you are responsible for tasks such as:

Making decisions regarding:

- the control of flow through the facility,
- the control of any of the treatment processes in the facility,
- the control of the discharge from the facility.

Determining processing requirements based on:

- observations of variations in operating conditions,
- interpretation of instrumentation data and test results

Certification

You are a Superintendent if you hold an Operator Certificate and are designated by your employer as the person "***in responsible charge***" of the facility. Not all Operator Certificate holders will be designated as superintendents. The certification regulations identify only two positions which must be filled by certified superintendents:

- The Superintendent
- The Assistant Superintendent.

Certification

Employees filling other positions may be certified as superintendents, but these are the only two positions which require superintendent certification. In summary, if you are designated by your employer as "*the responsible person in charge*" of the facility, you must obtain superintendent certification.

Certification

Maryland operator certification requirements consists of three elements:

1) **Education** (High School Degree or GED is required along with any required training hours),

2) **experience** and

3) **Certification** Examination

Certification

License approval requires a minimum of a high school education and six months to three years of related work experience (varies according to the specific work certification) and passing the appropriate written examination.

Education

- We employ Wastewater Treatment Operators, Collections Systems Operators and Water Treatment and Distribution Operators

Operator – in – Training

Upon hire as an Operator, you will be required to *immediately* apply for your "Operator – in – Training" Certificate.

- This form is available from MDE's Board of Water and Waste Systems Operators website.
- Once sent in, the OIT Certificate be mailed to your home address within 45 days.
- When MDE receives the application, that is when the credited time starts.
- Your start date is used for renewals an starts the time clock for experience.

Operator – in – Training

What experience hours are required?

- **Wastewater Collections (C2) Operators - in - Training** require 2 years or 3600 hours of on the job experience before they can apply for a Operators Certificate.
- **Water Distribution (D) Operators - in - Training** require 1 years or 500 hours of on the job experience before they can apply for a Operators Certificate.
- **Water Treatment Operators - in - Training** require 1 years or 500 hours of on the job experience before they can apply for a Operators Certificate.
- **Wastewater Treatment (5A) Operators - in - Training** require 3 years or 5400 hours of on the job experience before they can apply for a Operators Certificate.

Collections Operators, Class 2

- **To renew Wastewater Collections Operators' Certificate:**
  - Must have 16 training hours (TRE Approved, WWC), no process hours required
  - Must submit renewal form to MDE prior to your renewal date
- **To renew Wastewater Collections Temporary Operators' Certificate:**
  - Must have 24 training hours (TRE Approved, WWC), no process hours required.
  - Must have attempted the Certification Examination at least once
  - Must submit renewal form to MDE prior to your renewal date
- **To renew Wastewater Collections Superintendents' License:**
  - Must have 7 training hours (TRE Approved, Superintendent) no process hours
  - Training requirements for Superintendents are in *addition* to Operator Training requirements and cannot be duplicated

Wastewater Treatment Operators, Class 5A

- **To renew Wastewater Operators' Certificate:**
  - Must have 46 training hours (TRE Approved, WWT; 30 hours for the 5, 16 hours for the A), half of those hours must be process approved training.
  - Must submit renewal form to MDE prior to your renewal date
- **To renew Wastewater Operators Temporary Operators' Certificate:**
  - Must have:
    - For the class 5: 45 training hours (TRE Approved, WWT), half of those hours must be process approved training.
    - For the class A: 24 training hours (TRE Approved, WWT), half of those hours must be process approved training.
  - Must have attempted the Certification Examination at least once
  - Must submit renewal form to MDE prior to your renewal date
- **To renew Wastewater Superintendents' License:**
  - Must have 7 training hours (TRE Approved, Superintendent) no process hours
  - Training requirements for Superintendents are in addition to Operator Training requirements and cannot be duplicated

Water Treatment Operators, Class T2

- **To renew Water Treatment Operators' Certificate:**
  - Must have 16 training hours (TRE Approved, WT), no process hours required
  - Must submit renewal form to MDE prior to your renewal date
- **To renew Temporary Water Treatment Operators' Certificate:**
  - Must have 24 training hours (TRE Approved, WT), no process hours required
  - Must have attempted the Certification Examination at least once
  - Must submit renewal form to MDE prior to your renewal date
- **To renew Water Treatment Superintendents' License:**
  - Must have 7 training hours (TRE Approved, Superintendent) no process hours
  - Training requirements for Superintendents are in *addition* to Operator Training requirements and cannot be duplicated

Water Distribution Operators, Class D

- **To renew Operators' Certificate:**
  - Must have 16 training hours (TRE Approved, WWT), no process hours required
  - Must submit renewal form to MDE prior to your renewal date
- **To renew Temporary Operators' Certificate:**
  - Must have 24 training hours (TRE Approved, WWC), no process hours required
  - half of those hours must be process approved training.
  - Must submit renewal form to MDE prior to your renewal date
- **To renew Superintendents' License:**
  - Must have 7 training hours (TRE Approved, Superintendent) no process hours
  - Training requirements for Superintendents are in addition to Operator Training requirements and cannot be duplicated

Water Sampler Certification

- **To obtain Water Sampler Certificate:**
  - Maryland Rural Water (MRWA) offer training. Must have 16 training hours (TRE Approved, WWT), no process hours required
  - The Maryland Department of the Environment (MDE) requires that all first-time certification applicants, in addition to taking and passing the test for the online class, perform an in-person skills test in front of a certified Water Sampler. Must submit renewal form to MDE prior to your renewal date
  - This hands-on practicum demonstration is used to verify the applicant's ability to perform the appropriate sampling and preservation procedures for bacteriological, VOC, SOC and IOC samples.
- **To renew Water Sampler Certificate:**
  - Take the on line MRWA training.

What happens if you don’t renew your application?

- Immediately notify your immediate supervisor.
- Every permit requires the system to be operated by a Maryland State Certified Operator in accordance with COMAR 26.06.01.
- If you are not certified then you cannot operate our facilities.
- Disciplinary action is possible.

What happens if you don’t renew your application?

- If you knowingly operate with out a license, MDE could submit a criminal referral to the Maryland Attorney General for consideration.
- Be on the right side of the law, if you don’t know ask questions.
- Can you be fined or prosecuted? Or would the liability fall back on the Superintendent or Metcom?

Can the State prosecute and fine you?

JERSEY MAYHEM

Ex-Middlesex County water operator sentenced for submitting false data

Suzanne Russell @SRussellMyCJ

Published 2:28 p.m. ET Feb. 8, 2016 | **Updated 5:43 p.m. ET Feb. 9, 2016**

View Comments

Key Points

- Edward O'Rourke formerly served as operator for drinking waters systems in New Brunswick & Milltown
- O'Rourke provided false information about water purity to the state DEP
- Besides a 3 year prison term, he is barred from holding any future public employment jobs

NEW BRUNSWICK - A Brick man, who formerly served as the licensed operator for the New Brunswick and Milltown public drinking water systems, has been sentenced to three years in state prison for submitting false water purity information to the New Jersey Department of Environmental Protection.

Former water operator sentenced to 3 months for falsifying data

Apr 12, 2016 | WLSAM Staff

(DOLTON) A former Dolton certified water operator was sentenced to three months in prison on charges that he falsified paperwork to make it seem like the south suburb was properly sampling its drinking water.

Philip Kraus, 63, of Thornton was sentenced to three months in prison, followed by one year of supervised released and a $5,000 fine, according to the U.S. Attorney's Office.

LOCAL NEWS

Wamego Wastewater Operator could face up to 3 years in federal prison

by: Michael Dakota
Posted: Sep 16, 2020 / 01:27 PM CDT
Updated: Sep 16, 2020 / 01:27 PM CDT

Can the State prosecute and fine you?

Water system operator sentenced to jail after failing to report low chlorine levels

Water operator's actions force residents to question water quality

By **Briana Jones**

January 28, 2013

A water system operator in Ontario, Canada, was sent to jail earlier this month after being found guilty of falsifying records for a period of five years.

Lloyd Jarvis was sentenced to 30 days in jail for failing to report low chlorine levels in the distribution system.

According to *The Star* newspaper, "Jarvis
Municipality of West Elgin failed to notify
on a number of instances from 2004 to 20
minimum requirement of 0.05 mg/L to be

The West Elgin plant serves approximatel

Pumps 2022

News Feature | March 10, 2016

Waste Plant Operator Charged For Falsifying Data

By Sara Jerome,
@sarmje

Washington State filed charges this month against a treatment plant operator who provided reclaimed

Northern District of Iowa

FOR IMMEDIATE RELEASE

Monday, July 20, 2015

Two Men Sentenced for Clean Air and Clean Water Act Violations

SIOUX CITY, IOWA – An Iowan and a Nebraskan will each serve prison time for violating provisions of the Clean Air Act and Clean Water Act.

Things you should know…

- Since you, the Operator, hold the Certification, you are responsible for renewing and adhering to all rules and regulations.
- When does your certification expire?
- How many TRE credits do I need to renew?
- When is the exam being held?

Things you should know…

- MCET publishes a training course catalogue twice a year, training schedules are also available from their website.
- Prior to any training, make sure you have Training Approval Request form signed by your supervisor.
- Pay for your training using your pcard (as long as it's not overnight and under $500). Remember to submit all receipts to your supervisor.

Things you should do…

- Have your training completed at least 2 to 3 months prior to your renewal date.
- Keep your course completion certificates, they are important.
- Download your renewal form from MDE's Board of Waterworks and Waste System Operators web site
  https://mde.maryland.gov/programs/Permits/EnvironmentalBoards/Pages/BWW.aspx
- Submit your signed application 30 days prior to the renewal date.

Things you should know…

- We are here to help you with the certification process.
- There are a number of ways to receive training.