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Water and Sewer
PO Box 330316 • 3071 SW 38 Avenue
Miami, Florida 33233-0316
T 305-665-7471

VIA ELECTRONIC CORRESPONDENCE

October 17, 2017

CCN: 61380
File No: 8.DC.19.82

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044-7611
RE: DOJ No. 90-5-1-1-4022/1
Tom.Mariani@usdoj.gov

Chief, Clean Water Enforcement Branch
Water Protection Division
Attn: Brad Ammons
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303
Ammons.Brad@epa.gov

Rachael Amy Kamons
Environmental Enforcement Section
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044-7611
Rachael.Kamons@usdoj.gov

Florida Department of Environmental Protection
Southeast District – West Palm Beach
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406
Attn: Compliance/Enforcement Section
Jason.Andreotta@dep.state.fl.us

RE: Consent Decree (Case: No. 1:12-cv-24400-FAM)
Reference DOJ Case No. 90-5-1-1-4022/1
Section X — Stipulated Penalties, Paragraph 50 — Standard Operating Procedure
for Calculating Recovered Sanitary Sewer Overflow Volume

Dear Sir/Madam:

The Miami-Dade County (County) is in receipt of the United States Environmental Protection Agency (EPA) and Florida Department of Environmental Protection (FDEP) comments on the Standard Operating Procedure (SOP) for Calculating Recovered Sanitary Sewer Overflow (SSO) Volume. Please find the following restatement of EPA/FDEP comments and the County's responses, clarification, and/or additional information to your questions and/or comments.

1. *The EPA and FDEP regard "Recovered" volume as that which is collected by vacuum truck(s), or other methods, and returned to the treatment plant or other site for proper treatment and/or disposal. The method described here estimates the volume of sewage released, using the wetted area and the average depth of accumulation.*

RESPONSE: The County has updated the Standard Operating Procedure (SOP) for Calculating Recovered SSO Volume to address the EPA and FDEP comment by developing separate SOPs for Estimating SSO Volume Recovered and Estimating SSO Volume Released.

2. *For estimating the volume released, this method should incorporate consideration of the pipes size, the size of the opening from which the SSO was released, the pressure in the pipe, and the duration of flow. This is especially important when the SSO reaches permeable surfaces or surface waters, because the area x depth calculations do not account for percolation or amounts that entered surface waters.*

RESPONSE: Since receipt of the draft EPA/FDEP comments on the SORP on January 27, 2017 and the referenced SOP on February 15, 2017, Water and Sewer Department (WASD) Wastewater Collection and Transmission Line Division (WWCTLD) has improved methods for estimating the volume of released sewage. As indicated in the County's response to EPA/FDEP Comment No. 5 on the SORP, SOPs to support the current practices for estimating released SSO volumes have been developed and finalized (See Attachment B). The volume for a force main SSO is estimated using pipe size, size and type of opening, the pressure in the pipe and the duration of the SSO. It is calculated by WWCTLD Supervisor through the use of the MyWASD GIS Sewer Field Viewer Web Application. The second SOP in Attachment B, assists field investigation crew in estimating gravity main spills located at manholes. Using the same application, volume for a manhole overflow is calculated using visual flowrate estimation videos and duration of spill. The County's commitment, in that same response, to initiate training of all SSO response personnel on these SOPs by September 1, 2017, was completed on August 28, 2017.

3. *The volume recovered is only that volume of the actual SSO collected and delivered to the treatment plant or other appropriate site for treatment and/or disposal.*

RESPONSE: The attached SOP for Calculating Recovered SSO Volume presented by the County to EPA/FDEP for approval has been updated to address SSO volume collected by a vacuum truck. In the SOP, Cleaning Investigation Crew have been instructed to not include the collected volume for the below scenarios. Upon approval of the SOP by EPA/FDEP, all SSO response personnel will be trained on the SOP in Attachment A.

A. *If the area is washed down and the resulting SSO & water mixture is collected, the volume of water used for washdown should be estimated and deducted from the total volume collected. For example, if a 1,000 gallon spill is washed down with 3,000 gallons.*

RESPONSE: A bolded note has been added to the bottom of Step 14 of the revised SOP for Calculating the Recovered SSO Volume to advise Cleaning Investigation Crews that "Additional volume resulting from disinfecting and cleaning activities cannot be accounted as part of the total collected volume."

B. If water from a water body is collected, the percentage of the collected volume that is actual SSO will usually be very small. The percentage of collected water that is SSO can only be estimated by first estimating the volumes of the SSO and of the water body. For flowing waters, the time during which the SSO flowed into the water body must be part of the calculation of water body volume.

RESPONSE: A bolded note has been added to the bottom of Step 13 of the revised SOP for Calculating the Collected SSO Volume to advise Cleaning Investigation Crews that "At this point, if any sewage has reached surface waters or a storm drain(s) it can be vacuumed up but the volume cannot be claimed as collected." As mentioned above, once approved by EPA/FDEP, all SSO response personnel will be trained on this SOP.

The County remains committed to successfully meeting the requirements of the Consent Decree.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Should you have any questions regarding this matter, please call me at (786) 552-8571.

Sincerely,



Hardeep Anand, P.E.

Deputy Director, Capital Improvement Programs & Regulatory Compliance

Attachments: Attachment A – SOP for Calculating Recovered Sanitary Sewer Overflow (SSO) Volume and Attachment B - SOP for Estimating SSO Volumes – Force Main and Gravity Main

ec: Jonathan A. Glogau
Special Counsel
Chief, Complex Litigation
Office of the Attorney General
PL-01, The Capitol
Tallahassee, FL 32399-1050
850-414-3817
Jon.Glogau@myfloridalegal.com

Florida Department of Environmental Protection
Southeast District – West Palm Beach
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406
Attn: Compliance/Enforcement Section
Lisa.M.Self@dep.state.fl.us
Mike.Bechtold@dep.state.fl.us
Sed.wastewater@dep.state.fl.us

Mayor Carlos A. Gimenez
Miami-Dade County
111 NW First Street 29th Floor
Miami, Florida 33128

Lester Sola, Director
Miami-Dade Water and Sewer Department
3071 SW 38th Avenue
Miami, Florida 33146

Jack Osterholt, Deputy Mayor/Director
Miami-Dade Regulatory and
Economic Resources
111 NW 1st Street. 29th Floor
Miami, FL 33128
Josterholt@miamidade.gov

Henry Gillman
Assistant County Attorney
Miami-Dade County Attorney's Office
111 NW First Street Suite 2810
Miami, Florida 33128

William Bush
Associate Regional Counsel
U.S. EPA, Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303
Bush.William@epa.gov

William A. Weinischke
Senior Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044
Bill.Weinischke@usdoj.gov

ebc: Hardeep Anand
Antonio Cotarelo
Lynette Ramirez
Douglas L. Yoder
Bertha Goldenberg
Josenrique Cueto
Manuel Moncholi
Ureaka Wyche
Frances G. Morris
Sarah Davis
Sherry Negahban
Richard O'Rourke
Howard Fallon
Robert Fergen
Al Galambos
Dan Edwards
Rolando Roque
Juan Bedoya
Lee N. Hefty (RER-DERM)
Carlos Hernandez (RER-DERM)
Rashid Istambouli (RER-DERM)
David Wood (CD PMCM)
Andrea Suarez Abastida (CD PMCM)
Scott Eckler (CD PMCM)
Abby Diaz (CD PMCM)



ATTACHMENT A

Standard Operating Procedure for Calculating Recovered Sanitary Sewer Overflow (SSO) Volume for Spills >1,000 Gallons

General Purposes		The purpose of this Standard Operating Procedure is to assist WWCTLD staff (Field Investigation Crews, Cleaning Investigation Crews, Repair Crews, Valve Repair Crews and Supervisors) in calculating the recovered volume of sanitary sewer overflows (SSOs). This method is useful for spills greater than 1,000 gallons .	
P r o c e d u r e s	WASD Communication Center	<ol style="list-style-type: none"> 1. Initiates an incident investigation 2. Dispatches Field Investigation Crew. 	
	Field Investigation Crew	<ol style="list-style-type: none"> 3. Verifies the spill is greater than 1,000 gallons and immediately calls WASD Communication Center. 	
	WASD Communication Center	<ol style="list-style-type: none"> 4. Initiates the Discharge/Abnormal Event Notification 5. Calls the responsible WWCTLD supervisor. 	
	Supervisor	<ol style="list-style-type: none"> 6. Assesses the magnitude of spill and dispatches responding crews and /or an additional Cleaning Investigation Crew. 	
	Field Investigation Crew, Cleaning Crew No.1 & Repair Crew	<ol style="list-style-type: none"> 7. Once the dispatched crews arrive at the SSO site, they proceed to stop and contain the spill and repair the main according to Standard Operating Procedures for Responding to SSOs. 	
	Cleaning Investigation Crew No.2	<ol style="list-style-type: none"> 8. Arrives at the site and prevents any SSO that could possibly reach surface waters or storm drain(s) by deploying sand bags and/or diverting the flow. 	
		<ol style="list-style-type: none"> 9. Begins the spill recovery process. 	
		<ol style="list-style-type: none"> 10. Vacuum truck operator initiates the recovery from non-porous areas. 	
		<ol style="list-style-type: none"> 11. Vacuum truck operator notes the volume recovered if applicable, i.e. one or two debris tank load(s). A crew member documents the information on the SSO Form. 	
		<ol style="list-style-type: none"> 12. Locates swale/ditch areas where the spill has accumulated. Vacuum truck operator initiates the recovery process from swale/ditch areas. 	
		<ol style="list-style-type: none"> 13. Next, the crew collects the accumulation of sewage and takes notes of the volume recovered if applicable, i.e. one or two debris tank load(s), on the SSO. Note: At this point, if any sewage has reached surface waters or a storm drain(s) it shall be vacuumed up but the volume cannot be claimed as collected. 	
		<ol style="list-style-type: none"> 14. Proceeds with cleaning the spill according to Sewer Overflow Response Plan (Page 6-22). Note: Additional volume resulting from disinfecting and cleaning activities cannot be accounted as part of the total collected volume. 	
		<ol style="list-style-type: none"> 15. Vacuum truck operator discharges all SSO volume recovered to the collection system or at wastewater treatment plant. 	
	Supervisor	<ol style="list-style-type: none"> 16. Reports the SSO volume recovered to supervisor. 	
	Supervisor	<ol style="list-style-type: none"> 17. Reports the SSO volume recovered to WASD Communication Center. 	
	WASD Communication Center	<ol style="list-style-type: none"> 18. Updates the Discharge/Abnormal Event Notification Spill Report. 	
	Closeout		All data must be timely submitted to the supervisor. Recovered volumes will be evaluated during Monthly WWCTLD Spill Evaluation Meetings.

ATTACHMENT B

Standard Operating Procedures for Estimating Released Sanitary Sewer Overflow (SSO) Volumes – Force Main

General Purposes		The purpose of this Standard Operating Procedure is to assist WWCTLD staff (Field Investigation Crews (FIC), Repair Crews and Supervisors) in estimating the sanitary sewer overflow (SSO) volume by using MyWASD GIS Sewer Field Viewer Web Application. This method can be applied to a force main under pressure with a damaged section of a pipe.	
P r o c e d u r e s	WASD Communication Center	<ol style="list-style-type: none"> 1. Initiate an incident investigation 2. Dispatch Field Investigation Crew. 	
	Field Investigation Crew	<ol style="list-style-type: none"> 3. Verify the spill is from a force main and immediately call WASD Communication Center. 	
	WASD Communication Center	<ol style="list-style-type: none"> 4. Initiate the Discharge/Abnormal Event Notification 5. Call the responsible WWCTLD supervisor. 	
	Field Investigation Crew	<ol style="list-style-type: none"> 6. Arrive at the site and stop the spill in accordance with Sewer Overflow Response Plan (Page 6-08 to Page 6-10). 7. Verify the area has been safely secured according to established protocols. 	
	Repair Crew	<ol style="list-style-type: none"> 8. Arrive at the site and proceed to replace the damaged section of the pipe according to Standard Operating Procedure for Repairing Damaged Sewer Line (WWCTLD SOP). 	 <p>Figure 1: Force Main sewer spill.</p>
	Field Investigation Crew	<ol style="list-style-type: none"> 9. Document the total duration of the spill. The duration time starts at the time the call is placed and ends at the time the spill is stopped. 	 <p>Figure 2: Force Main hole release.</p>
		<ol style="list-style-type: none"> 10. Identify the type of break i.e. rectangular break, rounded hole or circular break 11. Measure the hole dimensions or diameter once the Repair Crew has cut out the damaged section and installed the new section of the pipe. 	
		<ol style="list-style-type: none"> 12. Clean the area according to Sewer Overflow Response Plan (Page 6-22). 	
	<ol style="list-style-type: none"> 13. Report the following information to the supervisor: the type of break, the hole dimensions or diameter, and duration of spill. 		

Standard Operating Procedures for Estimating Released Sanitary Sewer Overflow (SSO) Volumes – Force Main

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Supervisor

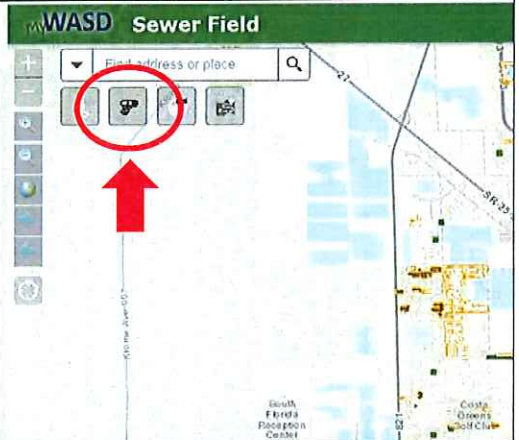
14. Obtain the time, duration, and sewer line where the spill occurred from the Communication Center or Field Investigation Crew.

15. Contact Supervisory Control and Data Acquisition (SCADA) Division to obtain the pressure data for the sewer line for the duration of the spill.

16. Navigate to the MyWASD GIS Sewer Field Viewer Web Application from the Web Application tab of the MyWASD portal or by using link below.
<http://mywasdgisapps/gis/default.aspx?Map=MyWASDSEWERFIELD>

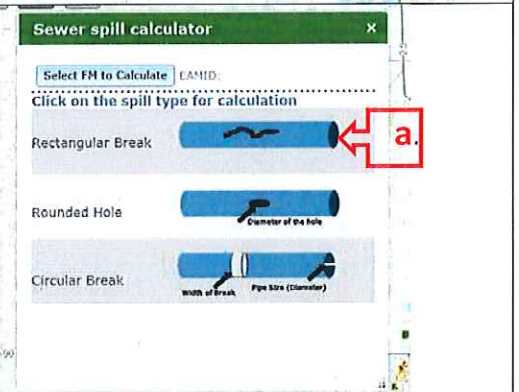


17. Select the sewer spill calculator tool located in the upper right area below the address/place search window.



18. Enter the information related to the spill evaluated

- a. Enter EAMID to select the FM to calculate
- b. Select the spill type
 - i. Rectangular Break
 - ii. Rounded Hole
 - iii. Circular Break



Standard Operating Procedures for Estimating Released Sanitary Sewer Overflow (SSO) Volumes – Force Main

Supervisor

19. For a rectangular break enter the following information in the corresponding field:
- Leak time in minutes
 - Pressure in PSI
 - Length of break in inches
 - Width of break in inches

Sewer spill calculator

Select FM to Calculate EAMID:

Rectangular Break

Leak time: 0 min

PSI: 0

Length of break: 0 inches

Width of break: 0 inches

GPM: 0.00

Total spill to report: 0

Back Calculate

20. For rounded hole enter the following information in the corresponding field:
- Leak time in minutes
 - Pressure in PSI
 - Diameter of hole in inches

Sewer spill calculator

Select FM to Calculate EAMID:

Rounded Hole

Leak time: 0 min

PSI: 0

Diameter of hole: 0 inches

GPM: 0.00

Total spill to report: 0

Back Calculate

21. For circular break enter the following information in the corresponding field:
- Leak time in minutes
 - Pressure in PSI
 - Pipe size diameter in inches
 - Width of break in inches

Sewer spill calculator

Select FM to Calculate EAMID:

Circular Break

Leak time: 0 min

PSI: 0

Pipe Size(Diam.): 0 inches

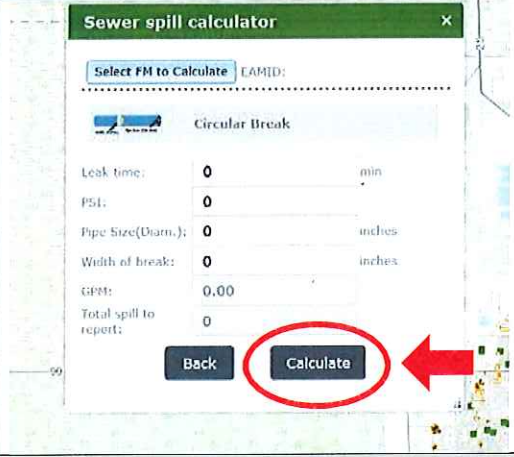
Width of break: 0 inches

GPM: 0.00

Total spill to report: 0

Back Calculate

Standard Operating Procedures for Estimating Released Sanitary Sewer Overflow (SSO) Volumes – Force Main

	Supervisor	<p>22. Calculate the volume to report by clicking on "Calculate" button</p>	
		<p>23. Report total SSO volume to WSD Communication Center.</p>	
Closeout		<ul style="list-style-type: none"> FIC: submit pictures and/or supplemental information to supervisor within 24 hours Supervisor: calculate and report SSO Volume to WSD Communication Center within 24 hours or as soon as possible Calculated SSO volume(s) will be evaluated during the Monthly WWCTLD Spill Evaluation Meeting by Supervisors, Superintendents, Chief and PMCM representatives. 	

Standard Operating Procedures for Estimating Released Sanitary Sewer Overflow (SSO) Volume – Gravity Main

General Purposes

The purpose of this Standard Operating Procedure is to assist WWCTLD staff (Field Investigation Crews (FIC) and Supervisors) in estimating a sanitary sewer overflow (SSO) volume by flow rate method. This method is useful for gravity main spills located at manholes.

WASD Communication Center

1. Initiate an incident investigation.
2. Dispatch Field Investigation Crew.

Field Investigation Crew

3. Verify the spill is on a non-porous area and immediately call WASD Communication Center.

WASD Communication Center

4. Initiate the Discharge/Abnormal Discharge Notification.
5. Call the responsible WWCTLD supervisor.

6. Arrive at the site and stop the spill in accordance with Sewer Overflow Response Plan (Page 6-08 to Page 6-10).
7. Verify that the area has been safely secured according to established protocols.
8. Proceed with cleaning the spill per Sewer Overflow Response Plan (Page 6-22).

Procedures

Field Investigation Crew

9. Use the Miami-Dade WASD Manhole SSO Flow Rate Estimation Photo Chart (see Attachment A) to identify the closest matching flow rate for initial estimation.
10. Document the total duration of the spill. The duration time starts at the time the call is placed and ends at the time the spill is stopped

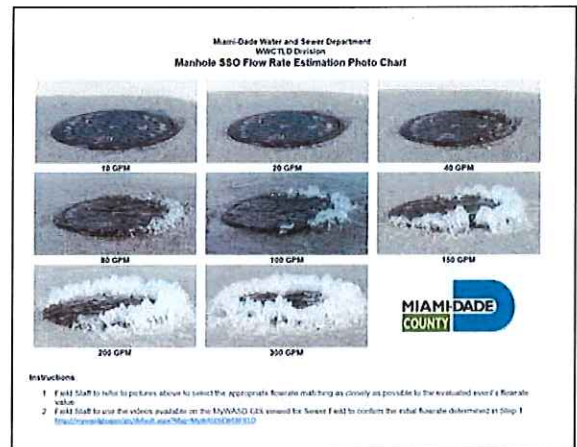


Figure 1: Miami-Dade WASD Manhole SSO Flow Rate Estimation Photo Chart.

11. Navigate to the MyWASD GIS Sewer Field Viewer Web Application from the Web Application tab of the MyWASD portal or by using link below.
<http://mywasdgisapps/gis/default.aspx?Map=MyWASDSEWERFIELD>

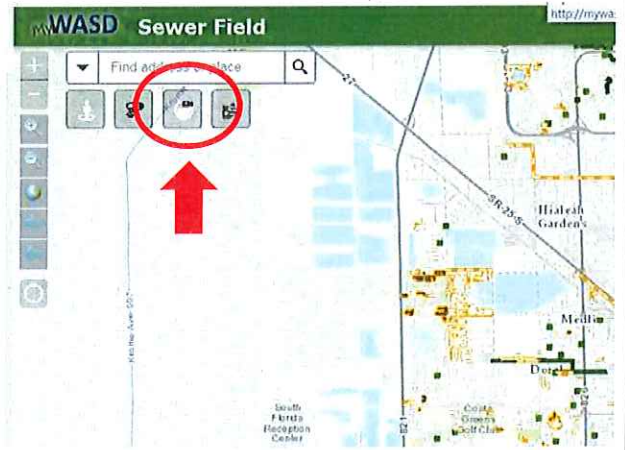


Standard Operating Procedures for Estimating Sanitary Sewer Overflow (SSO) Volume – Gravity Main

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Field Investigation Crew (Continued)

12. Select the Gravity Spill Examples tool located in the upper right area below the address/place search window



13. Select the flow rate identified in Step 9 to view the video and validate the estimated flow rate.



14. Submit "duration in minutes" and "identified flow rate" to supervisor

Supervisor

15. Calculate the SSO volume by multiplying the flow rate by the duration

Example:

$$40 \text{ gpm}^* \times 15 \text{ min}^{**} = 600 \text{ gallons}$$

*gpm: gallons per minutes
**min: minutes

Closeout

- FIC: submit pictures and/or supplemental information to supervisor within 24 hours
- Supervisor: calculate and report SSO Volume to WASD Communication Center within 24 hours or as soon as possible
- Calculated SSO volume(s) will be evaluated during the Monthly WWCTLD Spill Evaluation Meeting by Supervisors, Superintendents, Chief and PMCM representatives.