City of Chattanooga
Water Quality Program

Emergency Spill Response
Standard Operating Procedures (SOP)

July 28, 2009

Authorized By:	Revision	Date
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PURPOSE

The purpose of this document is to provide Standard Operating Procedures (SOP) for emergency spill response and spill site remediation. These procedures shall be followed by the Water Quality Program spill response team throughout the implementation of emergency spill response activities. This SOP is to be updated and reviewed annually.

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APPROVALS AND CONCURRENCES

Approvals: This is to certify that I have reviewed this document and approved its contents.

Signature

7-28-09

Date

Mounir Minkara, Ph.D., P.E.
Water Quality Manager

NOTICE OF REVISIONS RECORD

Date	Specific Section or Page	Revision Type (major or minor)	Revision Description
7/28/09	Throughout Document	Major	Entire document completely revised. Some previous sections from original SOP still remain and are included throughout revised SOP. Removed SWM reference and replaced with WQP.

INTRODUCTION

The City of Chattanooga operates its Water Quality Program (WQP) under the provisions of the State of Tennessee National Pollutant Discharge Elimination System Permit Number TNS068063. Part II, Paragraph C.7.e. requires the City to develop procedures to prevent, contain, and respond to spills. The procedures will include a provision that seeks to "prevent spills and various industries" and this provision is addressed in the Water Quality Industrial Inspection Program.

This Standard Operating Procedure addresses the response and spill cleanup guidelines (with emphasis on minimizing impacts to receiving waters) for the City's WQP staff.

References:

1. NPDES PERMIT TNS068063
2. City of Chattanooga City Code, Part II, Chapter 31, Section 31-343.
3. U. S. Department of Transportation Emergency Response Guide
4. National Institutes of Occupational Safety and Health Guidebook
5. 29 Code of Federal Regulations 1910.120

EMPLOYEE QUALIFICATIONS AND RESPONSIBILITIES OF RESPONDERS

The City of Chattanooga (City) Water Quality spill response program operates within the framework of the Incident Command System (ICS) as defined in 29 CFR 1910.120. The City of Chattanooga Fire Department will serve as the Incident Command in each incident for which they and other city agencies are mobilized. Therefore, representatives from the City WQP will at all times coordinate with the Incident Commander regarding actions at the site of a material release (spill) to which they have been called.

All responders from the City WQP will have completed Hazardous Waste Operations and Emergency Response (HAZWOPER) training in accordance with 29 CFR 1910.120. Specifically, responders will have completed training at the Hazardous Materials Specialist level (as defined in 29 CFR 1910.120) which requires at least 24 hours of training equal to the Hazardous Materials Technician level and will have competency in the following areas:

i. Implementing the local Emergency Response Plan.
ii. Classification, Identification, and Verification of an Unknown Material by use of survey instruments and equipment.
iii. Selection of appropriate Personal Protective Equipment (PPE).
iv. Understanding of Hazard and Risk Assessment Techniques.
v. Specialized Control, Containment/confinement operations within the capabilities of their resources and PPE.
vi. Understanding of Decontamination Procedures.
vii. Understanding of Chemical, Radiological, Toxicological Terminology and Behavior.

All responders from the City WQP shall have the 40 hr OSHA training and need to complete an annual refresher HAZWOPER course consisting of a minimum of 8 hours training and will maintain written certification of such training.

In general, the responsibilities of WQP staff are to serve as the "subject matter expert" in areas of environmental risks and hazards and to provide the Incident Commander with information needed to contain and confine the spilled materials and clean the site. The responsibilities include but are not limited to the following:

a. Advising the Incident Commander regarding the impact of spilled materials and the best methods for minimizing that impact on local watersheds, streams, the City stormwater drainage systems and other water features.

b. Advising the Incident Commander regarding the cleanup of spilled materials at each incident in local watersheds, streams, the City Stormwater drainage system and other water features.

c. Reporting the incident within the City's Service Request system and reporting the incident to other agencies such as the Tennessee Department of Environment and Conservation. Reporting Forms are included in Section 4 of this SOP.

d. Coordinating with cleanup staff, whether City support crews or contracted company, regarding the cleanup of spilled materials and ensuring that spilled materials are cleaned to the maximum extent possible.

EQUIPMENT LIST FOR SPILL RESPONSE

1. Salute and logbook
2. Digital camera
3. Latest edition of the Emergency Response Guide
4. Appropriate Personal Protective Equipment (PPE)
5. Safety Vest
6. Boots (Preferably Steel Toed)
7. Maps of the watershed in which the incident has occurred.
8. Flashlight
9. PH kit (paper)

PROCEDURES

City of Chattanooga Water Quality Staff will ensure that a minimum of two (2) trained staff are available for response on a 24-hour/7-day per week basis (one as a primary contact and the second as an alternate). The Chattanooga Fire Department shall receive a contact list of the phone number(s) of all the trained responders and provide this list to the Fire Dispatch.

Upon receiving a phone call notification of an emergency from the Fire Dispatcher, the responder will contact the Incident Commander on the scene of the spill and advise that he/she has been notified and is in the process of responding if necessary. (Fire Dispatcher normally provides the phone number of the Incident Commander on the scene).

Upon arrival at the site, the responder will report to the incident commander and use the SALUTE form for recording information about the incident. At the site, the responder will be briefed by the incident commander and will immediately begin a site assessment to determine the impact of the incident on storm water structures, streams and any other water features in the area. Within safety constraints, the responder may assist the first responders (normally the Chattanooga Fire Department) with containment of the released material. The following items will be considered in the site assessment:

1. Impact on adjacent streams.
2. Migration of released materials downstream.
3. Residual impact of materials in storm infrastructure.
4. Residual impact of materials in soil.
5. Effect of weather on the release.

SITE CLEAN UP & REMEDIATION

Once the spill is contained, the site clean up/remediation process will begin if necessary. The site remediation will be performed by either an Environmental Remediation Contractor (Marion Environmental, HEPACO, etc.), or the City of Chattanooga Fire Department or the City Wide Services Division of Public Works. The primary responsibility of the WQP Responder is to ensure proper and satisfactory remediation of the spill site. The WQP Responder will document work performed by cleanup contractor from the start of the process until the end and the site is satisfactorily remediated.

POST SITE INSPECTION

Water Quality Program Staff will return to the office that day (or the next work day if the spill occurs after regular work hours) once the spill has been contained and properly remediated. Once at the office, data associated with the SALUTE shall be assimilated for data entry.

1. A Service Request must be created for the Emergency Spill Response Incident. Include all information recorded in the SALUTE.

2. Contact the Tennessee Department of Environment and Conservation and provide them information recorded in the SALUTE about the spill if the spilled material has reached the Waters of the State.

3. Create a folder with the Address or Interstate/Hwy Mile Marker for the spill site in the L:\ER, under the appropriate permit year folder. In folder created include all photos taken at the spill scene, a scanned copy of the SALUTE, and the Service Request Summary.

4. Enter SALUTE information and a hyperlink to the folder created in the L:\ER into the GIS layer for Emergency Spill Response.

5. Create a map using GIS depicting:

    a. Spill Response Site.
    b. Any adjacent stormwater structures to the spill.

c. Pathway of the spill migration.
d. If spill has entered waters of the state.
e. Area where spill was contained.

6. Turn in the original SALUTE form along with the GIS Map of the spill site to the appropriate Water Quality Supervisor for Quality Assurance/Quality Control (QA/QC) review.

FOLLOW UP SITE INSPECTION

After the Water Quality Staff has completed the post site inspection of the spill response incident, a follow up inspection must be performed at the spill site. The Main purpose of this inspection is to ensure the site has been completely remediated and that there are no adverse affects to the contaminated area or aquatic life that has been exposed to the material spilled. If the spill site has been successfully remediated, then the incident can be closed. If the spill site has not been successfully remediated, then a second follow up inspection will be required. In the case of a spill site that might take more than a few days to completely remediate, several follow up inspections might be required.

Once the follow up SALUTE has been completed, turn the form in to the appropriate Water Quality Supervisor for QA/QC review then close the incident.

ENFORCEMENT ACTIONS

The majority of the spills that are responded to by the WQP Staff are caused accidentally. However, in some cases spills could have been prevented if the responsible party had followed proper safety precautions. If it comes to the attention that a responsible party in a spill neglected to follow proper safety precautions, then that party might be subject to enforcement actions by the City WQP.

Enforcement actions could possibly include:

a. Written Warning
b. Notice of Violation
c. Civil Penalty
d. Recovering WQP Enforcement/Remediation Cost
e. Court Citation

The responsible party's information will be recorded in the SALUTE in the event that any enforcement action might take place.

SPILL REPORT CLOSURE

Once the emergency spill response incident has been closed, a single combined PDF file for this incident must be created.
Items included in this combined PDF file are:

1. Initial Spill Response SALUTE
2. Service Request Summary
3. Photographs taken of the Spill Incident
4. GIS Map of Spill Area
5. Follow up SALUTE (If Necessary)
6. Follow up Photographs (If Necessary)
7. Enforcement Letters or Response Letters (If Necessary)
8. Any extra information provided about the incident (reports from environmental remediation company, memos, etc.)

When all of the items have been combined into a single PDF file, place them in the combined PDF folder in L:\ER for the appropriate permit year which the spill incident has occurred.

INTER-DEPARTMENTAL COOPERATION

Most of the time when a WQP responder arrives on the site of a spill, there will be several agencies and departments involved. It is the responsibility of the WQP responder to work and cooperate with these multiple agencies to ensure the spill site is properly contained and remediated.

Figure 1: Emergency Spill Response SALUTE (Blank)

- Photos should be Included
- Site/Receiving Stream should be Mapped

QA/QC Reviewer:

Further Action Required:

Yes ____ No____

Comments:

Date:

Emergency Spill Response Report (SALUTE)

City of Chattanooga
Water Quality Program
1250 Market Street, Suite 2100
Chattanooga, Tennessee 37402
(423) 643-5877 Fax (423) 643-5862
SWM@mail.chattanooga.gov

DATE _____

Location of Emergency Spill Response

_____

Watershed _____ **Time of Incident**_____ **SR#** _____

WQP Responder(s)_____ **TEMA #**_____

Type of Release(s)	Release Quantity	Environmental Contractor	Contact Person

Cause of Spill/Mitigation Actions:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Responsible Party for Release_____
Mailing Address_____

Initial Response	**Yes ☐**	**No ☐**	**Has data been scanned?**	**Yes ☐**	**No ☐**
Follow-Up Inspection	**Yes ☐**	**No ☐**	**Data entered into GIS?**	**Yes ☐**	**No ☐**
Final Inspection	**Yes ☐**	**No ☐**	**Has Combined File Been Created**	**Yes ☐**	**No ☐**
Is letter required?	**Yes ☐**	**No ☐**	**Data entered into folder?**	**Yes ☐**	**No ☐**
Is enforcement required?	**Yes ☐**	**No ☐**	**Has issue been resolved?**	**Yes ☐**	**No ☐**

Make Sure You Attach a Site Map (showing receiving streams and SW Structures)

Additional Comments:

_____

May 13, 2009

Figure 2: Initial Completed Salute Form Example

- Photos should be Included
- Site/Receiving Stream should be Mapped

QA/QC Reviewer: Rebecca E Robinson
Further Action Required:
Yes ___ No ✓
Comments:

Date: 6-2-09 7:58 AM

Emergency Spill Response Report (SALUTE)

City of Chattanooga
Water Quality Program
1250 Market Street, Suite 2100
Chattanooga, Tennessee 37402
(423) 643-5877 Fax (423) 643-5862
SWM@mail.chattanooga.gov

DATE 5-31-09

Location of Emergency Spill Response

1-24 E.B. Mile 177-4

Watershed [illegible] **Time of Incident** 5:30am **SR#** 09-00096752

WQP Responder(s) Jamon Bass **TEMA #** 383

Type of Release(s)	Release Quantity	Environmental Contractor	Contact Person
Diesel Fuel	150 gallons	First Response	Mike Akins

Cause of Spill/Mitigation Actions:

Truck carrying food products ran into the left shoulder guard rail causing the saddle tanks containing diesel fuel to rupture. Approximately 150 gallons of diesel spilled on the ground into the gravel area. There was no drainage systems near the spill and all of the diesel was contained. First response sprayed chemicals on the diesel that was visible to neutralize it. The Chattanooga Fire Dept placed booms down prior to the chemical spraying to absorb most of the diesel runoff. Later this week, first response will finish mitigation of this site and will notify re and send photos of the cleanup.

Responsible Party for Release Kenda (PLM Trailer Leasing - Trailer)
Mailing Address 1087 NW Cottage Rd #150, Madison, FL 32340
(MC 471709, USDOT 1171133
KYU 201533)

Initial Response	Yes ☒	No ☐	Has data been scanned?	Yes ☒	No ☐
Follow-Up Inspection	Yes ☐	No ☒	Data entered into GIS?	Yes ☒	No ☐
Final Inspection	Yes ☐	No ☒	Has Combined File Been Created	Yes ☐	No ☒
Is letter required?	Yes ☐	No ☒	Data entered into folder?	Yes ☒	No ☐
Is enforcement required?	Yes ☐	No ☒	Has issue been resolved?	Yes ☐	No ☒

Make Sure You Attach a Site Map (showing receiving streams and SW Structures)

Additional Comments:

Follow up inspection required when final mitigation occurs.

May 13, 2009

Figure 3: Service Request Summary Example Page

Service Request Summary Report

09-00063988

Printed Date: Jun 09, 2009 09:16 AM

Type:	Swm - Spills/Chemical Discharge	SR #:	09-00063988
Area:	Council District 6	Priority:	Emergency
Group:	SWM - Water Quality	Status:	Closed
Jurisdiction:	Chattanooga	Status Date:	Apr 14, 2009 02:23 PM
Input By:	BASS, JAMON	Created Date:	Apr 13, 2009 11:16 AM
CC Groups:		Created As:	Original
Location:	1580 INTERSTATE 75 CHATTANOOGA, TN, 37421	Method Received:	Phone
Location Details:			

Location Alerts	Location
NO LOCATION ALERTS	

Flex Questions	Answers
What other agencies responded?	Chattanooga Fire Department,Tennessee Department of Transportation,Chattanooga Police Department
Who is the responsible party?	ROGER HENSON TRUCKING
Has the spill reached a waters of the state?	No
What chemical has been released or spilled?	DIESEL
How much chemical has been spilled?	75-100 GALLONS
In what watershed was the release?	Wolftever Creek (G)
Who was the cleanup contractor?	HEPACO
Was overtime required?	No
Was TDEC notified?	Yes
Was TEMA notified?	Yes
What is the TEMA number?	483

Participants	Name	Address	Phones
NO PARTICIPANTS WITH INFO			

Description: Transfer truck from Roger Henson trucking company hit the side of a retaining wall and ruptured the saddle tank causing 75-100 gallons of diesel to spill on the road.

Activities	Assigned Staff	Due Date	Complete Date	Outcome
E-Mail SWM	STORMWATER, DEPT	Apr 13, 2009 06:00 PM		
Dispatch Inspector	BASS, JAMON	Apr 13, 2009 06:00 PM	Apr 13, 2009 11:25 AM	Completed
Details: Received call from Fire Dispatch at about 8:00 am. I contacted Chief Mack Moore and I was informed that a truck had wrecked on I-75 Northbound and about 75-100 gallons of diesel had been spilled. I informed the Chief that I was in route to the accident site.				
Inspect Site	BASS, JAMON	Apr 13, 2009 06:00 PM	Apr 13, 2009 11:28 AM	Completed
Details: When I arrived at the site of the accident, the truck had already been towed away and HEPACO was placing oil dri and shoveling it along the side of the road. Hepaco will have a Bobcat out later on that will scoop all of the oil dri off the road. I informed HEPACO that I would return to the accident scene for a follow up inspection tommorrow.				

SR Time Line Events	Event Date / Time	User	Details
Status Change	Apr 14, 2009 02:23 PM	BASS, JAMON	Status - FROM: Open TO: Closed Status Date - FROM: APR 13, 2009 11:25 AM TO: APR 14, 2009 02:23 PM
Service Request Closed	Apr 14, 2009 02:23 PM	BASS, JAMON	Service Request Closed - FROM: Open TO: Closed, Status Date - FROM: APR 13, 2009 11:25 AM TO: APR 14, 2009 02:23 PM
Status Change	Apr 13, 2009 11:25 AM	BASS, JAMON	Status - FROM: New TO: Open Status Date - FROM: APR 13, 2009 11:16 AM TO: APR 13, 2009 11:25 AM
Service Request Created	Apr 13, 2009 11:24 AM	BASS, JAMON	SR # 09-00063988 has been created.

Full History Events	Event Date / Time	User	History

Page 1 of 2

Service Request Summary Report

09-00063988

Printed Date: Jun 09, 2009 09:16 AM

Full History Events	Event Date / Time	User	History
Service Requests Update	Apr 14, 2009 02:23 PM	BASS, JAMON	Status - FROM: Open TO: Closed, Status Date - FROM: APR 13, 2009 11:25 AM TO: APR 14, 2009 02:23 PM
ST Reserved Records Update	Apr 14, 2009 02:23 PM	BASS, JAMON	Completed Date - FROM: TO: APR 14, 2009 02:23 PM
Service Request Activities Update	Apr 13, 2009 11:31 AM	BASS, JAMON	Inspect Site - created on APR 13, 2009 11:24 AM was updated as follows: Assigned Staff Name - FROM: TO: J. BASS, Due Date - FROM: TO: APR 13, 2009 06:00 PM, Outcome - FROM: TO: Completed, Comments - FROM: TO: When I arrived at the site of the accident, the truck had already been towed away and HEPACO was placing oil dri and shoveling it along the side of the road. Hepaco will have a Bobcat out later on that will scoop all of the oil dri off the road. I informed HEPACO that I would return to the accident scene for a follow up inspection tommorrow.
Service Request Activities Update	Apr 13, 2009 11:28 AM	BASS, JAMON	E-Mail SWM - created on APR 13, 2009 11:24 AM was updated as follows: Due Date - FROM: TO: APR 13, 2009 06:00 PM
Service Request Activities Update	Apr 13, 2009 11:28 AM	BASS, JAMON	Dispatch Inspector - created on APR 13, 2009 11:24 AM was updated as follows: Assigned Staff Name - FROM: TO: J. BASS, Due Date - FROM: TO: APR 13, 2009 06:00 PM, Complete Date - FROM: TO: APR 13, 2009 11:25 AM, Outcome - FROM: TO: Completed, Comments - FROM: TO: Received call from Fire Dispatch at about 8:00 am. I contacted Chief Mack Moore and I was informed that a truck had wrecked on I-75 Northbound and about 75-100 gallons of diesel had been spilled. I informed the Chief that I was in route to the accident site.
Service Request Activities Update	Apr 13, 2009 11:28 AM	BASS, JAMON	Inspect Site - created on APR 13, 2009 11:24 AM was updated as follows: Complete Date - FROM: TO: APR 13, 2009 11:28 AM
ST Reserved Records Update	Apr 13, 2009 11:28 AM		Transferred Out Date - FROM: TO: APR 13, 2009 11:28 AM
Service Requests Update	Apr 13, 2009 11:25 AM	BASS, JAMON	Status - FROM: New TO: Open, Status Date - FROM: APR 13, 2009 11:16 AM TO: APR 13, 2009 11:25 AM
Geo Area Insert	Apr 13, 2009 11:24 AM	BASS, JAMON	Geo Area Value has been inserted - Council District - 6.
Geo Area Insert	Apr 13, 2009 11:24 AM	BASS, JAMON	Geo Area Value has been inserted - Neighborhood Services - 4.
Service Requests Insert	Apr 13, 2009 11:16 AM	BASS, JAMON	SR # 09-00063988 has been created.

Figure 4: GIS Map of Spill Area Example

Map depicting the site of the fire at 4860 Hixson Pike, then the entry point and migration pattern of the "Class A Foam".

Figure 5: Follow up Completed Salute Example

- Photos should be Included
- Site/Receiving Stream should be Mapped

QA/QC Reviewer: Rebecca E Robinson
Further Action Required:
Yes ___ No ✓
Comments:
Date: 6-9-09 11:00AM

Emergency Spill Response Report (SALUTE)

City of Chattanooga
Water Quality Program
1250 Market Street, Suite 2100
Chattanooga, Tennessee 37402
(423) 643-5877 Fax (423) 643-5862
SWM@mail.chattanooga.gov

DATE 6-9-09

Location of Emergency Spill Response

I-24 @ Mile 177 East Bound

Watershed C Time of Incident See Initial SWIS SR# 09-00096752

WQP Responder(s) Jason Bass TEMA # 383

Type of Release(s)	Release Quantity	Environmental Contractor	Contact Person
Diesel	150 Gallons	First Response	Mike Akins

Cause of Spill/Mitigation Actions:

Truck from PLM Trailer Leasing Company ran into left shoulder of ground spill up I-24 East Bound and ruptured tank and released 150 gallons of diesel fuel. First Response cleaned S.R. up and on 6-9-09 a follow up inspection was conducted and the site was completely cleaned of diesel spill.

Responsible Party for Release Kenda (PLM Trailer Leasing Trailer)
Mailing Address 1057 NW Cottage Rd #150, Madison, FL 32340
(MC 477709, USDOT 1171135, Kyn 201537)

Initial Response	Yes ☐	No ☒	Has data been scanned?	Yes ☒	No ☐
Follow-Up Inspection	Yes ☒	No ☐	Data entered into GIS?	Yes ☒	No ☐
Final Inspection	Yes ☒	No ☐	Has Combined File Been Created	Yes ☒	No ☐
Is letter required?	Yes ☐	No ☒	Data entered into folder?	Yes ☒	No ☐
Is enforcement required?	Yes ☐	No ☒	Has issue been resolved?	Yes ☒	No ☐

Make Sure You Attach a Site Map (showing receiving streams and SW Structures)

Additional Comments: Follow up Inspection - and Final Inspection of S.R.

May 13, 2009