



**CHESTERFIELD COUNTY**

REVISION 009

4.3.3.1 Objectives, Targets & Programs Spreadsheet

DEPARTMENT: Utilities Wastewater Collections

Person Resp	Reviewed by	Approved by
CCC	EMS TEAM MEMBERS	MWR

Persons responsible:	Clements, Chris	Harsh, Deborah	Marandina, Charles	Carter, Steve	Yandle, Chris	Reed, Mitchell
Areas of application:	Utilities Wastewater Collections					

**Warning!** Earlier versions of this document may be obsolete and should be removed from points of use.

**Document Location:** Wastewater Collections Superintendents Office

**Revision Schedule**

Rev. No.	Date	Revised by	Description
000		CCC	Initial write up
001	10/16/2009	CCC	Added Electrical Consumption Aspect
002	1/5/2010	CCC	Completed Procurement of Spill Prevention Equipment / Designated aerosol puncture system location.
003	2/26/2010	CCC	Revised Asphalt Tool Cleaning Target / Completed Action Plan 5b / Revised Implementation Date of Aerosolve Puncture System.
004	4/13/2010	CCC	Added Aspects Wastewater Conveyance, Wastewater Sewer Line Inspection, Easement Clearing.
005	4/21/2010	CCC	Added Chemical Name to Aspects Odophos & Bioxide.
006	8/2/2010	CCC	Completed Training for Odophos, Bioxide, & Fuel Oil on spill prevention equipment also tested for employee competency.
007	3/29/2011	CCC	Added Parts Washer to OTP list and updated completed date of Aerosolve Can Puncturer.
008	4/12/2012	CCC	Annual Review
009	3/19/2013	CCC	Removed Tim Odell from document and added Charles Marandina

Aspect	Objective	Target	Performance Indicator	Action Plan	Person Responsible	Start Date -Complete Date	Comments
1. Odophos (Ferrous Sulfate) (Off-Loading and Storage)	Minimize release of Odophos to the environment in the event of a release from the storage tank or off-loading operations.	Zero reportable spills of Odophos during off-loading and storage operations. Decrease the potential environmental impact of Odophos used and stored onsite.	Track all reportable spills in the Spill Tracking spreadsheet.	1a.1.1. Evaluate spill kits & spill berms located at wastewater pump stations.	Tim Odell Deborah Harsh	8/18/09 -11/02/09	Evaluate spill kits & berms located at pump stations by November 2009.
				1b.1.2. Procure necessary spill prevention equipment.	Tim Odell Deborah Harsh Mitchell Reed	8/18/09 -1/05/10	After spill kit & berm evaluation procure new spill prevention equipment by January 2010.
				1c.1.3. Train all employees on Odophos Operational Control measures and new spill prevention equipment operations.	Deborah Harsh EMS Team	8/2/2010	Train employees once spill kits are in place at pump stations.
2. Bioxide (Calcium Nitrate Double Salt) (Off-Loading and Storage)	Minimize release of Bioxide to the environment in the event of a release from the storage tank or off-loading operations.	Zero reportable spills of Bioxide during off-loading and storage operations. Decrease the potential environmental impact of Bioxide used and stored onsite.	Track all reportable spills in the Spill Tracking spreadsheet.	2a.1.1. Evaluate spill kits & spill berms located at wastewater pump stations.	Tim Odell Deborah Harsh	8/18/09 -11/02/09	Evaluate spill kits & berms located at pump stations by November 2009.
				2b.1.2. Procure necessary spill prevention equipment.	Tim Odell Deborah Harsh Mitchell Reed	8/18/09 -1/05/10	After spill kit & berm evaluation procure new spill prevention equipment by January 2010.
				2c.1.3. Train all employees on Bioxide Operational Control measures and new spill prevention equipment operations.	Deborah Harsh EMS Team	8/2/2010	Train employees once spill kits are in place at pump stations.
3. Fuel Oil (Off-Loading and Storage)	Minimize release of Fuel Oil to the environment in the event of a release from the storage tank or off-loading operations.	Zero reportable spills of Fuel Oil during off-loading and storage operations. Decrease the potential environmental impact of Fuel Oil used and stored onsite.	Track all reportable spills in the Spill Tracking spreadsheet.	3a.1.1. Evaluate spill kits & spill berms located at wastewater pump stations.	Tim Odell Deborah Harsh	8/18/09 -11/02/09	Evaluate spill kits & berms located at pump stations by November 2009.
				3b.1.2. Procure necessary spill prevention equipment.	Tim Odell Deborah Harsh Mitchell Reed	8/18/09 -1/05/10	After spill kit & berm evaluation procure new spill prevention equipment by January 2010.
				3c.1.3. Train all employees on Fuel Oil Operational Control measures and new spill prevention equipment operations.	Deborah Harsh EMS Team	8/2/2010	Train employees once spill kits are in place at pump stations.



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Areas of application:		Utilities Wastewater Collections					
4. Paving Operations (Asphalt Tool Cleaning Procedure)	Evaluate existing asphalt tool cleaning procedure by 11/1/2009	Evaluate replacement of asphalt tool cleaning chemical from one that requires hazardous waste disposal to non-hazardous disposal by 5/1/2010	Eliminate chemical exposure to the environment. Evaluate the effectiveness of new asphalt tool cleaning procedure and make changes if necessary.	4a.1.1. Review current asphalt tool cleaning procedure.	Steve Carter Chris Yandle Deborah Harsh	8/18/09 - 2/28/10	
				4b.1.2. Review options for replacing asphalt tool cleaning chemical to an environmentally sound product.	Steve Carter Deborah Harsh EMS Team	2/1/2010 -	Steve Carter & the EMS Team will research and test new chemical products for effectiveness and environmental safety.
				4c.1.3. Train all employees to be 100% compliant with new tool cleaning procedure to eliminate chemical exposure to the environment	Deborah Harsh EMS Team		Begin training when new procedure is completed.
				4d. 1.4. Develop, train, and retrain to check competency.	Deborah Harsh EMS Team		
5. Aerosol Cans	Ensure proper disposal of Aerosol cans.	Implement Chesterfield County's OC for Aerosol can disposal by 4/1/2010.	Eliminate chemical exposure to the environment.	5a. 1.1. Procure Aerosol can puncture system and designate a desired location for unit.	EMS Team	8/18/09 - 1/05/10	Aerosol Can puncture system has been purchased. Desired location has not been confirmed.* Puncture system will be located in the Utilities Warehouse.
				5b. 1.2. 100% compliant with Aerosol can disposal operational control procedure.	Deborah Harsh EMS Team	8/18/09 - 2/28/10	Review and follow Aerosol Can OC 4.4.6.CWOC.13
				5c. 1.3. Train all employees to be 100% compliant with Aerosol Can OC to eliminate chemical exposure to the environment.	Deborah Harsh EMS Team	4/1/2010	Develop, train, & retrain to check employee competency. Once employee training is complete Aerosol Can Puncture process can begin.
6. Reduction of Energy Cost	Reduce electrical consumption at WWTP Pump Stations by Applying ceramic coatings to pump impellers and possibly volutes.	Evaluate electrical bills at pump stations and mag meter flow readings.	Reduced cost in electric bill for pump stations or increase in pump efficiency. Evaluate also the reduction of equipment maintenance.	To coat all impellers and volutes when a pump fails and is contracted out for repair to also have this procedure done.	EMS Team Tim Odell	10/16/09 -	Work closely with Tim Odell and review and document data after procedure has been performed on pumps.



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7. Wastewater Conveyance	Reduce sanitary sewer overflows.	Reduce overflows by 5%.	Track all reportable spills in Hansen database.	Sewer line jet flushing program.	Steve Carter Chris Yandle	4/1/2010	Review data quarterly.
8. Wastewater Sewer Line Inspection	Reduce Inflow & Infiltration.	Reduce Inflow & Infiltration by 10%.	Track sewer line inspections in Hansen database.	Identify and repair any sewer line defects.	Chris Clements	4/1/2010	Review data quarterly.
9. Easement Clearing	Maintain sewer easements for accessibility.	Clear a minimum of 35,000 feet quarterly.	Track clearing footage in Hansen database.	Maintain all sewer main transmission line easements	Steve Carter Chris Yandle	4/1/2010	Review data quarterly.
10. Parts Washer	Evaluate existing parts washer chemical to change to a non hazardous parts washer solvent	100% reduction in hazardous waste generation	No hazardous waste disposal will be needed if new chemical is implemented	Meet with Safety-Kleen to discuss cost and solvent properties to switch to a non-hazardous solvent	Chris Clements	1/3/2011 - 3/22/2011	Target is complete Safety-Kleen has switched chemical to a non-hazardous solvent and handle all recycling of existing solvent plus provide necessary documentation for the EMS program.