



Environmental Management System for Biosolids

Document 03.1 – Hanover Park WRP CCP Table

Version Number: 14

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Biosolids Value Chain	CCP	Operational Controls	Potential Environmental Impacts	Monitoring/Measuring/ Record Keeping	Primary Person Roles/Responsibilities
Wastewater Collection and Pretreatment	Residential Discharges	<ul style="list-style-type: none"> Public Outreach Household hazardous waste collection(HHW) 	<ul style="list-style-type: none"> Poor surface water quality Metals accumulation in biosolids 	<ul style="list-style-type: none"> # Educational outreach events HHW Event Summaries 	Section 072 Public and Intergovernmental Affairs Officer (X16626); Section 643 CE II (X15119)
	Industrial Discharges	<ul style="list-style-type: none"> Permits – DA Pretreatment Inspections SPCC Plans (Spill) TOMP Plans (Toxics) Sewage & Waste Control Ordinance Field Surveillance and Enforcement Action Regulated community outreach 	<ul style="list-style-type: none"> Pipe Corrosion Process upsets – poor quality surface water & biosolids Metals accumulation in biosolids Violation of NPDES Permit Fish Kills Explosions 	<ul style="list-style-type: none"> Random Sampling Inspections Continuous Sampling Interceptor Sampling IEPA Annual Pretreatment Report Notices of Noncompliance Cease and Desist Orders Semi-annual Continued Compliance Reports Discharge Authorizations # of outreach events 	Section 197 SES (X52402) Section 166 SCIV (X45670) Section 192 Superv ES (X13050)
	Spills into Collection System	<ul style="list-style-type: none"> Sewage & Waste Control Ordinance Enforcement Regulated community outreach 		<ul style="list-style-type: none"> Incident Report # of outreach events 	Section 197 SES (X52402)



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Wastewater Treatment & Solids Generation	Screening & Grit Removal	<ul style="list-style-type: none"> Operate timer, differential level or continuous mode based on loading 	<ul style="list-style-type: none"> Equipment failure/process overload Poor quality biosolids 	<ul style="list-style-type: none"> Volume (CY) of debris removed. Operator logs 	Section 753 TPO III (X64214)
	Primary Treatment	<ul style="list-style-type: none"> Primary sludge withdrawal No. of tanks in service Operations SOPs 	<ul style="list-style-type: none"> Odor Excess loading to secondary treatment Poor quality effluent and biosolids 	<ul style="list-style-type: none"> % Solids Operator logs 	Section 753 TPO III (X64214) Section 166 SCIV (X45670)
	Secondary Treatment Aeration Tanks Final Settling Tanks	<ul style="list-style-type: none"> NPDES Permit No. IL0036137 DO, MLSS, SRT, RAS rate, WAS rate, Feed Rate Operations SOPs 	<ul style="list-style-type: none"> NPDES Permit Violation Poor quality effluent and biosolids Odor 	<ul style="list-style-type: none"> Operator logs Daily reports NPDES permit parameters Microscopic examination DO, SS, SVI, F/M, Blanket level, RAS, WAS, MLSS, BOD, NH3, pH 	Section 753 TPO III (X64214) Section 166 SCIV (X45670)

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Solids Stabilization	Primary Sludge Thickening	<ul style="list-style-type: none"> • Rate of feed • Overflow SS • Rate of withdraw • Blanket level control 	<ul style="list-style-type: none"> • Odor • Loss of digester capacity, process upset • Poor quality biosolids 	<ul style="list-style-type: none"> • % Solids (feed, draw, centrate) • Operator logs • Blanket level • Recycle • Polymer usage 	Section 753 TPO III (X64214)	
	Secondary Sludge Thickening	<ul style="list-style-type: none"> • Rate of feed • GBT – polymer dose • GBT SOP 			Section 166 SCIV (X45670)	
	Anaerobic Digestion	<ul style="list-style-type: none"> • Feed & draw rates • Temperature • Detention time • Digester SOP 	<ul style="list-style-type: none"> • Odor • Poor quality biosolids • Biosolids not suitable for land application 	<ul style="list-style-type: none"> • Feed solids • VS destruction • Methane produced • Alkalinity • Temperature • Detention time • pH 	Section 753 TPO III (X64214)	Section 166 SCIV (X45670)
Biosolids Transport	Pump to Lagoon	<ul style="list-style-type: none"> • Pump rate • Digester draw 	<ul style="list-style-type: none"> • Line break - spill • Water pollution 	<ul style="list-style-type: none"> • Operator logs • Volume pumped • % Solids 	Section 753 TPO III (X64214)	Section 166 SCIV (X45670)
	Pump to Tanker & Transport	<ul style="list-style-type: none"> • Trucking/Hauling SOP • Spill SOP 	<ul style="list-style-type: none"> • Odor • Spill • Water pollution 	<ul style="list-style-type: none"> • Volume • % Solids • Operator logs 	Section 755 ET V (X64215)	Section 166 SCIV (X45670)
Biosolids Storage	Lagoon Storage	<ul style="list-style-type: none"> • Maintain adequate storage space • Lagoon Operation SOP • Sampling SOP 	<ul style="list-style-type: none"> • Product overflow to river – water quality • Odor 	<ul style="list-style-type: none"> • Operator logs • % Solids • Volume 	Section 755 ET V (X64215)	Section 166 SCIV (X45670)

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Biosolids Utilization	Land Application	<ul style="list-style-type: none"> • IEPA Permit No. 2016-SC-61315 • Inject into ground immediately (VAR) • 40 CFR 503 Requirements • 35 IAC 391 Requirements • Weather • Sampling SOP • Injection SOP 	<ul style="list-style-type: none"> • Odor • Spill • Water Pollution • Biosolids not suitable for land application 	<ul style="list-style-type: none"> • IEPA monthly & semi-annual reports • Contractor – Monthly Report • Groundwater monitoring • % Solids • Operating Permit Parameters 	<p>Section 755 ET V (X64215)</p> <p>Section 166 SCIV (X45670) Section 123 Supervising Environmental Soil Scientist (X84201)</p>
Odor Control Management	Mechanical Operation/ Solids Processing	<ul style="list-style-type: none"> • Ozone generation (WAS) 	<ul style="list-style-type: none"> • Odor 	<ul style="list-style-type: none"> • Operator Logs • Odor Survey 	<p>Section 754 ME3 (X64300)</p>

Revision History

Version Number	Version Date	Description of Revision
0	7/28/05	Original issue.
1	9/20/05	Revised Operational Controls, Environmental Impacts, and Monitoring, Measuring and Recordkeeping Removed CCPs that do not play a role in biosolids management (Sewer Maintenance, Influent, Odor Control Management – Collection Facilities and Treatment Operations)
2	3/22/06	Revised the Operational Controls, Monitoring/Measuring/Recordkeeping and Primary Person Roles/Responsibilities columns of the table.
3	4/12/07	Replaced TPO II with ET V on pages 3 and 4. Added “regulatory community outreach” to the Industrial Discharge and Spills into Collection System CCPs under the Operational Control column. Added “# of outreach events” to the Industrial Discharge and Spills into Collection System CCPs under the Monitoring/Measuring/Recordkeeping column. Added the following to the Industrial Discharge CCP under the Monitoring/Measuring/Recordkeeping column: IEPA Annual Pretreatment Report, Notices of Noncompliance, Cease and Desist Orders, Semi-annual Continued Compliance Reports, and Discharge Authorizations. Added 35 IAC 391 (Title 35 of the Illinois Administrative Code Part 391) Requirements to Land Application CCP under Operational Control column.
4	2/26/08	Replaced Public Information Coordinator with Manager of Public Affairs under the Primary Person Roles/Responsibilities column of the Residential Discharges CCP. Replaced Section 633 with Section 643 under the Primary Person Roles/Responsibilities column of the Residential Discharges CCP.



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5	3/11/09	<p>Added Section 166 – SCIV (45670) to the Industrial Discharges CCPs, Primary Treatment CCPs, Secondary Treatment Aeration Tanks Final Setting Tanks CCPs, Secondary Sludge Thickening CCPs, Anaerobic Digestion CCPs, Pump to Lagoon CCPs, Pump to Tanker & Transport CCPs, Lagoon Storage CCPs and Land Application CCPs all under the Primary Person Roles/Responsibilities column.</p> <p>Added Biosolids not suitable for land application to Anaerobic Digestion CCPs and Land Application CCPs under the Potential Environmental Impacts column.</p> <p>Added Section 122 – Soil Scientist III (84063) to Mechanical Operation/Solids Processing CCPs under Primary Person Roles/Responsibilities column.</p>
6	8/24/09	Revised PCO III to PCO III / SES
7	3/10/10	<p>Added “Section 192 SES (X13050)” to the Industrial Discharge CCP under the Primary Person Roles/Responsibilities column.</p> <p>Removed “Carbon filters on airlifts” from the Mechanical Operation/Solids Processing CCP under the Operational Controls column.</p> <p>Revised “ME2” to “ME3” in the Mechanical Operation/Solids Processing CCP under the Primary Person Roles/Responsibilities column.</p>
8	4/13/11	<p>Added “Section 123 Supervising Environmental Soil Scientist (X84063) to Biosolids Value Chain - Biosolids Utilization – Land Application under Primary Person Roles/Responsibilities column.</p> <p>Removed Section 122 – Soil Scientist III (X84063) from Biosolids Value Chain – Odor Control Management – Mechanical Operation/Solids Processing under Primary Person Roles/Responsibilities column.</p>
9	10/17/11	Edited Footer with Official Document Location
10	2/27/2013	Updated Responsible Person Title under Residential Discharges
11	5/19/2014	Updated Responsible Person Title under Residential Discharges
12	2/16/16	Updated Responsible Person Title under Odor Control Management
13	3/22/17	Biosolids Utilization: Updated Phone number for Section 123



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<p>14</p>	<p>3/8/18</p>	<p>Updated Public & Intergovernmental Affairs Officer's section # from 071 to section 072. Updated Public & Intergovernmental Affairs Officer's ext. # from X17909 to X16626. Updated Section 643 CE II Ext. # from X16571 to X15119. Updated IEPA Permit No. from 2002-SC-0672 to 2016-SC-61315 under Biosolids Utilization/Land Application.</p>