

Environmental Management System for Biosolids

Document 03.4 – Terrence J. O’Brien WRP CCP Table

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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 SE (X16571)
	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 196 SES (X88200) Section 166 SCIV (X45670) Section 192 Supervising Environmental Specialist (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 196 SES(X88200)



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Wastewater Treatment & Solids Generation	Screening	<ul style="list-style-type: none"> Operate timer, differential level or continuous mode based on level 	<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 732 TPO III (X88318)
	Grit Removal	<ul style="list-style-type: none"> Operate based on flow Vary timing 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 	Section 732 TPO III (X88318)
	Primary Treatment	<ul style="list-style-type: none"> Primary sludge withdrawal No. of tanks in service Influent feed rates 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"> Sludge blanket thickness % Solids Operator logs 	Section 734 COE (X88382) Section 166 SCIV (X45670)
	Secondary Treatment Aeration Tanks Final Settling Tanks UV Disinfection	<ul style="list-style-type: none"> NPDES Permit No. IL0028088 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 732 TPO III (X88318) Section 166 SCIV (X45670) Section 122 Associate Environmental Research Scientist (X84237)



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Solids Processing	Solids Concentration	<ul style="list-style-type: none"> • Visual observation • Level bubblers • Rate of feed • Overflow SS • Rate of withdraw 	<ul style="list-style-type: none"> • Odor • Poor quality biosolids 	<ul style="list-style-type: none"> • % Solids • Operator logs • Blanket level • Recycle 	Section 734 COE (X88382) Section 166 SCIV (X45670)
Solids Transport	Sludge Pipeline to SWRP	<ul style="list-style-type: none"> • Pressure • Flow 	<ul style="list-style-type: none"> • Spill 	<ul style="list-style-type: none"> • Operator logs • % Solids • IEPA monthly & semi-annual reports 	Section 734 COE (X88382) Section 732 TPO III (X88318) (QC) Section 166 SCIV (X45670)
Odor Control Management	Collection Facilities	<ul style="list-style-type: none"> • Carbon filters on manholes 	<ul style="list-style-type: none"> • Odor 	<ul style="list-style-type: none"> • Odor Complaints • Odor Survey 	Section 679 SE (X88329)
	Treatment Operations	<ul style="list-style-type: none"> • Chlorination • Housekeeping • Odor Control SOP 	<ul style="list-style-type: none"> • Odor 	<ul style="list-style-type: none"> • Operator Logs • Odor Survey • Odor complaint Log 	Section 732 TPO III (X88318)

Revision History

Version Number	Version Date	Description of Revision
0	7/28/05	Original issue.
1	9/16/05	Revised Operational Controls, Environmental Impacts, and Monitoring, Measuring and Recordkeeping Removed CCPs that do not play a role in biosolids management (TARP, Sewer Maintenance, Influent, Odor Control Management)
2	4/12/07	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.
3	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.
4	3/11/09	Added Section 166 – SCIV (45670) to Industrial Discharges CCPs, Primary Treatment CCPs, Secondary Treatment Aeration Tanks Final Settling Tanks CCPs, Solids Concentration CCPs and Sludge Pipeline to SWRP CCPs. Added Section 122 – Soil Scientist III (84063) to Primary Treatment CCPs and Secondary Treatment Aeration Tanks Final Settling Tanks.



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Version Number	Version Date	Description of Revision
5	8/24/09	Revised PCO III to PCO III / SES.
6	3/10/10	Added "Section 192 SES (X13050)" to the Industrial Discharge CCP under the Primary Person Roles/Responsibilities column.
7	4/14/11	Under the Biosolids Value Chain, Odor Control Management, Collection Facilities CCP, the title has changed under Primary Person Responsible for Section 742 from CE II to CE III. Remove Section 122 – Soil Scientist III (X84063) from Biosolids Value Chain – Wastewater Treatment & Solids Generation – Primary Treatment and Secondary Treatment Aeration Tanks Final Settling Tanks under Primary Person Roles Responsibilities column. Added Associate Environmental Research Scientist (X84237) to Biosolids Value Chain – Wastewater Treatment & Solids Generation – Secondary Treatment Aeration Tanks Final Settling Tanks under Primary Person Roles/Responsibilities column.
8	10/17/11	Edited Footer with Official Document Location
9	03/05/13	Plant Name Change from North Side to Terrence J. O'Brien WRP Updated Responsible Person Title under Residential Discharges Biosolids Value Chain – Odor Control Management/Collection Facilities Person Responsible Section change to 677.
10	3/06/14	Updated Responsible Person Title under Residential Discharges. CEII to CEIII Biosolids Value Chain – Odor Control Management/Collection Facilities Person Responsible Section change to 679, CEII from 677, CEIII.. Revised all Section 196 Responsible Person from PCOIII/SES to SES.
11	5/19/14	Updated Responsible Person Title under industrial Discharges Sect. 192



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<p>12</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 Title from CE III to SE for section 643. Updated Title from CE II to SE for section 679. Added UV Disinfection to CCP under Wastewater Treatment & Solids Generation/Secondary Treatment Aeration Tanks Final Settling Tanks.</p>
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