### Document 03.1 – Hanover Park WRP CCP Table

**Version Number:** 14  
**Version Date:** March 8, 2018

<table>
<thead>
<tr>
<th>Biosolids Value Chain</th>
<th>CCP</th>
<th>Operational Controls</th>
<th>Potential Environmental Impacts</th>
<th>Monitoring/Measuring/Record Keeping</th>
<th>Primary Person Roles/Responsibilities</th>
</tr>
</thead>
</table>
| **Wastewater Collection and Pretreatment** | Residential Discharges | • Public Outreach  
• Household hazardous waste collection (HHW) | • Poor surface water quality  
• Metals accumulation in biosolids | • # Educational outreach events  
• HHW Event Summaries | Section 072 Public and Intergovernmental Affairs Officer (X16626);  
Section 643 CE II (X15119) |
| | Industrial Discharges | • Permits – DA  
• Pretreatment Inspections  
• SPCC Plans (Spill)  
• TOMP Plans (Toxics)  
• Sewage & Waste Control Ordinance  
• Field Surveillance and Enforcement Action  
• Regulated community outreach | • Pipe Corrosion  
• Process upsets – poor quality surface water & biosolids  
• Metals accumulation in biosolids  
• Violation of NPDES Permit  
• Fish Kills  
• Explosions | • 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 | • Sewage & Waste Control Ordinance  
• Enforcement  
• Regulated community outreach |  | • Incident Report  
• # of outreach events | Section 197 SES (X52402) |
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<th>Biosolids Value Chain</th>
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</tr>
</thead>
</table>
| Wastewater Treatment & Solids Generation | Screening & Grit Removal | • Operate timer, differential level or continuous mode based on loading | • Equipment failure/process overload  
• Poor quality biosolids | • Volume (CY) of debris removed.  
• Operator logs | Section 753 TPO III (X64214) |
| | Primary Treatment | • Primary sludge withdrawal  
• No. of tanks in service  
• Operations SOPs | • Odor  
• Excess loading to secondary treatment  
• Poor quality effluent and biosolids | • % Solids  
• Operator logs | Section 753 TPO III (X64214)  
Section 166 SCIV (X45670) |
| | Secondary Treatment  
Aeration Tanks  
Final Settling Tanks | • NPDES Permit No. IL0036137  
• DO, MLSS, SRT, RAS rate, WAS rate, Feed Rate  
• Operations SOPs | • NPDES Permit Violation  
• Poor quality effluent and biosolids  
• Odor | • 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) |
## Environmental Management System for Biosolids

### Solids Stabilization

#### Primary Sludge Thickening
- **CCP:** Rate of feed, Overflow SS, Rate of withdraw, Blanket level control
- **Operational Controls:**
  - Rate of feed
  - Overflow SS
  - Rate of withdraw
  - Blanket level control
- **Potential Environmental Impacts:**
  - Odor
  - Loss of digester capacity, process upset
  - Poor quality biosolids
- **Monitoring/Measuring/Record Keeping:**
  - % Solids (feed, draw, centrate)
  - Operator logs
  - Blanket level
  - Recycle
  - Polymer usage
- **Primary Person Roles/Responsibilities:**
  - Section 753 TPO III (X64214)
  - Section 166 SCIV (X45670)

#### Secondary Sludge Thickening
- **CCP:** Rate of feed, GBT – polymer dose, GBT SOP
- **Operational Controls:**
  - Rate of feed
  - GBT – polymer dose
  - GBT SOP
- **Potential Environmental Impacts:**
  - Odor
  - Poor quality biosolids
  - Biosolids not suitable for land application
- **Monitoring/Measuring/Record Keeping:**
  - Feed solids
  - VS destruction
  - Methane produced
  - Alkalinity
  - Temperature
  - Detention time
  - pH
- **Primary Person Roles/Responsibilities:**
  - Section 753 TPO III (X64214)
  - Section 166 SCIV (X45670)

#### Anaerobic Digestion
- **CCP:** Feed & draw rates, Temperature, Detention time, Digestor SOP
- **Operational Controls:**
  - Feed & draw rates
  - Temperature
  - Detention time
  - Digestor SOP
- **Potential Environmental Impacts:**
  - Odor
  - Poor quality biosolids
  - Biosolids not suitable for land application
- **Monitoring/Measuring/Record Keeping:**
  - Feed solids
  - VS destruction
  - Methane produced
  - Alkalinity
  - Temperature
  - Detention time
  - pH
- **Primary Person Roles/Responsibilities:**
  - Section 753 TPO III (X64214)
  - Section 166 SCIV (X45670)

### Biosolids Transport

#### Pump to Lagoon
- **CCP:** Pump rate, Digester draw
- **Operational Controls:**
  - Pump rate
  - Digester draw
- **Potential Environmental Impacts:**
  - Line break - spill
  - Water pollution
- **Monitoring/Measuring/Record Keeping:**
  - Operator logs
  - Volume pumped
  - % Solids
- **Primary Person Roles/Responsibilities:**
  - Section 753 TPO III (X64214)
  - Section 166 SCIV (X45670)

#### Pump to Tanker & Transport
- **CCP:** Trucking/Hauling SOP, Spill SOP
- **Operational Controls:**
  - Trucking/Hauling SOP
  - Spill SOP
- **Potential Environmental Impacts:**
  - Odor
  - Spill
  - Water pollution
- **Monitoring/Measuring/Record Keeping:**
  - Volume
  - % Solids
  - Operator logs
- **Primary Person Roles/Responsibilities:**
  - Section 755 ET V (X64215)
  - Section 166 SCIV (X45670)

### Biosolids Storage

#### Lagoon Storage
- **CCP:** Maintain adequate storage space, Lagoon Operation SOP, Sampling SOP
- **Operational Controls:**
  - Maintain adequate storage space
  - Lagoon Operation SOP
  - Sampling SOP
- **Potential Environmental Impacts:**
  - Product overflow to river – water quality
  - Odor
- **Monitoring/Measuring/Record Keeping:**
  - Operator logs
  - % Solids
  - Volume
- **Primary Person Roles/Responsibilities:**
  - Section 755 ET V (X64215)
  - Section 166 SCIV (X45670)
## Environmental Management System for Biosolids

### Biosolids Value Chain

<table>
<thead>
<tr>
<th>CCP</th>
<th>Operational Controls</th>
<th>Potential Environmental Impacts</th>
<th>Monitoring/Measuring/Record Keeping</th>
<th>Primary Person Roles/Responsibilities</th>
</tr>
</thead>
</table>
| **Biosolids Utilization** | **Land Application** | • IEPA Permit No. 2016-SC-61315  
• Inject into ground immediately (VAR)  
• 40 CFR 503 Requirements  
• 35 IAC 391 Requirements  
• Weather  
• Sampling SOP  
• Injection SOP | • Odor  
• Spill  
• Water Pollution  
• Biosolids not suitable for land application | • IEPA monthly & semi-annual reports  
• Contractor – Monthly Report  
• Groundwater monitoring  
• % Solids  
• Operating Permit Parameters | Section 755 ET V (X64215)  
Section 166 SCIV (X45670)  
Section 123 Supervising Environmental Soil Scientist (X84201) |
| **Odor Control Management** | **Mechanical Operation/Solids Processing** | • Ozone generation (WAS) | • Odor | • Operator Logs  
• Odor Survey | Section 754 ME3 (X64300) |
<table>
<thead>
<tr>
<th>Version Number</th>
<th>Version Date</th>
<th>Description of Revision</th>
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<tbody>
<tr>
<td>0</td>
<td>7/28/05</td>
<td>Original issue.</td>
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<tr>
<td>1</td>
<td>9/20/05</td>
<td>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)</td>
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<tr>
<td>2</td>
<td>3/22/06</td>
<td>Revised the Operational Controls, Monitoring/Measuring/Recordkeeping and Primary Person Roles/Responsibilities columns of the table.</td>
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<tr>
<td>3</td>
<td>4/12/07</td>
<td>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.</td>
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<tr>
<td>4</td>
<td>2/26/08</td>
<td>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.</td>
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### Environmental Management System for Biosolids

<table>
<thead>
<tr>
<th>Document</th>
<th>Date</th>
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<tbody>
<tr>
<td>5</td>
<td>3/11/09</td>
<td>Added Section 166 – SCIV (45670) to the Industrial Discharges CCPs,</td>
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<tr>
<td></td>
<td></td>
<td>Primary Treatment CCPs, Secondary Treatment Aeration Tanks Final Setting</td>
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<tr>
<td></td>
<td></td>
<td>Tanks CCPs, Secondary Sludge Thickening CCPs, Anaerobic Digestion CCPs,</td>
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<tr>
<td></td>
<td></td>
<td>Pump to Lagoon CCPs, Pump to Tanker &amp; Transport CCPs,</td>
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<tr>
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<td>Lagoon Storage CCPs and Land Application CCPs all under the Primary</td>
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<td></td>
<td>Person Roles/Responsibilities column.</td>
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<tr>
<td></td>
<td></td>
<td>Added Biosolids not suitable for land application to Anaerobic</td>
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<td>Digestion CCPs and Land Application CCPs under the Potential</td>
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<td></td>
<td>Added Section 122 – Soil Scientist III (84063) to Mechanical Operation/</td>
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<td>Solids Processing CCPs under Primary Person Roles/Responsibilities</td>
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<td>column.</td>
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<tr>
<td>6</td>
<td>8/24/09</td>
<td>Revised PCO III to PCO III / SES</td>
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<tr>
<td>7</td>
<td>3/10/10</td>
<td>Added “Section 192 SES (X13050)” to the Industrial Discharge CCP under</td>
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<td></td>
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<td>the Primary Person Roles/Responsibilities column.</td>
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<td>Removed “Carbon filters on airlifts” from the Mechanical Operation/</td>
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<td>Solids Processing CCP under the Operational Controls column.</td>
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<td>Revised “ME2” to “ME3” in the Mechanical Operation/Solids Processing</td>
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<td>CCP under the Primary Person Roles/Responsibilities column.</td>
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<td>8</td>
<td>4/13/11</td>
<td>Added “Section 123 Supervising Environmental Soil Scientist (X84063)</td>
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<td>to Biosolids Value Chain - Biosolids Utilization – Land Application</td>
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<td>under Primary Person Roles/Responsibilities column.</td>
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<td>Removed Section 122 – Soil Scientist III (X84063) from Biosolids</td>
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<td></td>
<td>Value Chain – Odor Control Management – Mechanical Operation/Solids</td>
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<td>Processing under Primary Person Roles/Responsibilities column.</td>
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<tr>
<td>9</td>
<td>10/17/11</td>
<td>Edited Footer with Official Document Location</td>
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<tr>
<td>10</td>
<td>2/27/2013</td>
<td>Updated Responsible Person Title under Residential Discharges</td>
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<tr>
<td>11</td>
<td>5/19/2014</td>
<td>Updated Responsible Person Title under Residential Discharges</td>
</tr>
<tr>
<td>12</td>
<td>2/16/16</td>
<td>Updated Responsible Person Title under Odor Control Management</td>
</tr>
<tr>
<td>13</td>
<td>3/22/17</td>
<td>Biosolids Utilization: Updated Phone number for Section 123</td>
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| 14 | 3/8/18 | 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. |