

**NATIONAL BIOSOLIDS PARTNERSHIP
INTERIM AUDIT REPORT**

**St. Cloud Public Utilities
Wastewater Treatment Facility
St. Cloud, Minnesota**

Audit conducted by

NSF-International Strategic Registrations

William R. Hancuff, Lead Auditor

References:

National Biosolids Partnership (NBP) *EMS Elements*
NBP *Third Party Verification Auditor Guidance – November 2001*
(Latest Revision August 2011)
NBP Code of Good Practice
City of St. Cloud, Minnesota
Wastewater Treatment Facility
Biosolids Management Program
Environmental Management System
Manual 2019

Draft Report – April 16, 2019

INTRODUCTION

The purpose of the Biosolids Management Program (BMP) interim audits are to verify through regular reviews the system's health and effectiveness between verification audits. The third party on-site interim audits provide independent reviews and support credibility between re-verification audits. The goal of the audit is to collect and evaluate objective evidence related to a portion of the BMP such that over the course of the four interim audits conducted between verification audits all 17 elements are addressed.

The goal of the audit is to determine whether the St. Cloud Public Utilities Wastewater Treatment Facility's Biosolids Management Program (BMP) is functioning as intended, that practices and procedures are conducted as documented, and that the BMP as implemented conforms to the NBP's Code of Good Practice and the BMP requirements of the National Biosolids Partnership (NBP) program objectives.

RECOMMENDATION

The results of the St. Cloud interim audit and review of the corrective action plans are positive, and it is the recommendation of the audit team that the St. Cloud Wastewater Treatment Facility BMP maintain its platinum level recognition certification status. Maintaining certification is not the end, but rather part of a continuum of a continuously improving biosolids management program.

AUDIT SCOPE

The (NSF-ISR) conducted a third party interim audit of the St. Cloud Wastewater Treatment Facility BMP from April 9 through April 10, 2019. The on-site audit team consisted of Dr. William R. Hancuff, Lead Auditor.

The primary objective of the annual interim audit is to ensure the biosolids management program's health by reviewing:

- Progress toward goals and objectives,
- Corrective and preventive action requests and responses.
- Actions taken to correct minor non-conformances,
- Management review process, and
- BMP outcomes (environmental performance, regulatory compliance, interested party relations, and quality practices)

The first four items identified above involved reviewing procedures, activities, processes and products that have general requirements found in the NBP standard elements 5, 14, 15, 16 and 17. The fifth item, BMP outcomes, had the potential of involving other

NBP standard elements, namely: 1, 2, 4, 6, 9, 10 and 13. In addition the scope specifically included review and verification of individual EMS Elements 3, 10, 12, and 13. Work involved document review, interviews, and field visits.

In general terms, the scope of the third party interim audit encompasses the entire biosolids value chain (pretreatment, collection and treatment, solids processing through final end use or disposal) with special attention on those practices and management activities that directly support solids and biosolids-related operations, processes, and activities within the wastewater treatment plant's functions.

The physical biosolids facilities included in the audit and visited during the interim audit were the St. Cloud wastewater treatment facilities, including the gravity belt thickening operations, blower operations, solids storage tanks, tanker trucks, tractor and one land application farm site: *Byron Gerhke's field A-49 in Stearns County near Fairhaven (63 acres); and the City owned 100 acre land application site – fields H & G 20 in Lynden Township, MN.*

The following individuals were interviewed or otherwise participated in meetings as part of the audit process:

- Patrick Shea – Public Services Director
- Tracy Hodel – Assistant Utilities Director
- Chris Plautz – Wastewater Services Supervisor
- Emma Larson – Public Utilities Water Quality Coordinator
- Shanna Czeck – Environmental Compliance, EMS Coordinator
- Brian Schoenecker – Wastewater Services Manager & Internal Lead Auditor
- David Wallen – Wastewater Services Specialist
- Mark Weyer – Utility Maintenance Mechanic
- Jeff Vanderweist – Heavy Equipment Operator II
- Bob and Kieth Klaverkamp – Farmers and biosolids land application users
- Sherry Bock – Biosolids Coordinator – Resource Management and Assistance Division, Minnesota Pollution Control Agency

INTERIM AUDIT FINDINGS

The interim audit included review of the latest version of the St. Cloud Biosolids Environmental Management System Manual updated 3 April 2019 containing the current element procedures, and utilized the most recent version of the NBP Third Party Verification Auditor Guidance dated August 2011. The interim audit found no major non-conformances, 2 minor non-conformances and 2 opportunities for improvement, as well as 3 commendations or positive observations.

The following is a review of the positive observations made during the audit process. Minor non-conformances and opportunities for improvement follow and are presented in the sequence of the NBP standard elements listed by requirement number. These numbers correspond to the Element minimum conformance requirements.

Positive Observations

- St. Cloud has demonstrated excellent leadership not only in utilization of innovative technologies in biosolids processing and stabilization, but also in establishing and maintaining a model National Biosolids Partnership Environmental Management System.
- The Utility makes exemplary use of their master calendar to track, not only the requirements of their Biosolids Management System, but also numerous other activities involved in plant operations and performance.
- St. Cloud has a model internal audit program and has used it effectively in periodically conducting audits as a substitute for the third party interim audits.

Minor Non-conformances

Requirement 3.5 – This minimum conformance requirement necessitates those organizations that have successfully completed a third party verification audit and are pursuing NBP Platinum-level Certification, provide notification to third party verification auditor after any operational change that requires a change to the identified critical control points or to environmental impacts associated with the critical control points. Notification of the addition of the new centrifuge, Ostara nutrient recovery, Lystek thermal hydrolysis process, and WAS p-release was not provided.

Requirement 11.2 – St. Cloud has not yet evaluated the effectiveness of emergency preparedness and response procedures, including communication systems and revising them as necessary through “release exercises” or “spill drills”.

Opportunities for Improvement

Requirement 11.2 – Consider developing a post action evaluation form or report for identifying what went right and what went wrong in responding to an emergency spill or release.

Requirement 16.3(b) – Consider having internal auditor(s) attend ISO 14001 lead auditor or auditor training as appropriate.

Summary and Closure

The hard work and dedication of the BMP Team must be recognized. While maintaining BMP certification is obviously a team effort, the hard work and dedication of Emma Larson, Shanna Czeck, Chris Plautz, David Wallen, and Brian Schoenecker must be acknowledged. Also, the encouragement, support and active participation of Patrick

Shea, Public Services Director and Tracy Hodel, Assistant Utilities Director ensure the continued success of this program.

For the non-conformances, the St. Cloud BMP Team will prepare Corrective Action/Improvement Forms and implement corrective actions according to their BMP procedures to provide continual improvements to their biosolids program. The Corrective Action/Improvement Forms will be presented to the lead auditor within 30 days.

All corrective actions for minor nonconformities must be corrected within 30 days of the audit, or within the extensions beyond 30 days found to be acceptable and approved by the lead auditor.

As a further measure to demonstrate continual improvement the opportunities for improvement will be addressed to the maximum extent possible.

The final report and recommendation for continued recognition at the platinum level of certification will be submitted to NBP within two weeks following approval of the corrective actions for the minor nonconformities submitted to the lead auditor.

CITY OF ST. CLOUD WASTEWATER TREATMENT FACILITY COMMENTS

The City of St. Cloud Biosolids Management Program staff acknowledge the findings of the audit are an accurate representation of the EMS program. The EMS team will work to resolve the minor nonconformities identified during the audit ensuring that the corrective actions are comprehensive and timely. The opportunities for improvement will be investigated and considered. The EMS team, staff in the Public Utilities Department and City Administration have demonstrated continued dedication to advancing the EMS program.

OUTCOMES MATTER

Since establishing a new approach to formulating its goals in 2013 with longer-term time-bound targets the City of St. Cloud's Wastewater Treatment Facility Biosolids Management Program established eight goals with thirty-five related objectives. Some of the objectives were actually action plans associated with the goals and objectives and several did not clearly establish measurable criteria upon which to evaluate progress or accomplishment. However, the program has continually improved and accomplished many of the goals and objectives, such that there are currently three active goals.

The EMS Coordinator and the EMS Team in consideration of potential public concerns developed goals and objectives. The current goals and supporting objectives were developed using Specific, Measurable, Achievable, Relevant, and Time-bound (SMART) criteria and established cognizant of each of the four NBP required outcome areas listed below:

- Environmental Performance,
- Regulatory Compliance,
- Relations with Interested Parties, and
- Quality Biosolids Management Practices

While it is not a requirement to accomplish all objectives established, it is a critical component of the system to make progress towards achieving the majority of the goals. The facility's performance relative to each of the above outcome groups is addressed beneath each of the goals and objectives identified below.

As was mentioned above several goals have been attained and have been retired, while some evolved to become new goals and objectives. The following presents a review of the status of the goals and objectives as of this 2019 interim audit. Goal numbers that are not discussed have either been accomplished or retired or both.

Goal 4 – Implement On-line Maintenance Program in the ER Portal Program by December 2015. This goal was originally developed in 2014. The initial measurable objective was to ensure that preventive maintenance is performed on the existing 1800 assets. A second measurable objective goal was to establish a preventive maintenance to corrective maintenance ratio, estimated to be 60/40, to optimize performance and minimize costs.

Note that this Goal has continued to evolve over the past five years such that it is now solely focused on entering all of the assets that require maintenance into the ER Portal Program. The total number of assets have increase substantially with the addition of several critical control points including Ostara, Lystek, and a new centrifuge. More processes and equipment are expected in the near future, requiring additional resources to accomplish this modified goal. This resulted in the need to extend the time-bound parameter for listing 100% of the assets to the end of calendar year 2020.

The status of historical action plan steps, formerly identified as objectives, are as follows:

Objective 4.1 (action plan) – List 50% of the WWTP assets into the ER Portal by December 31, 2015. This action was accomplished by entering at least 900 of the 1800 assets into the system. Progress has continued and, as of June 1, 2016, 1200 assets have been entered. The action plan was modified to have 100% or 1,800 assets and children assets entered by December 31, 2016 along with all new assets entered as they are identified. Progress on this objective required rebalancing in light of the current focus shift to identification of assets and children assets of new processes and equipment.

Objective 4.2 (action plan) – Provide ER Portal Training to two groups of ER Portal users, managers and operators. Although it was reported that 100 percent of the users have

had initial training by December 31, 2015; there is a continuing need to provide supplemental training as implementation of the ER Portal evolves.

Objective 4.3 (action plan) – Implement ER Portal functionality for maintenance by December 31, 2016. It appears that the ER Portal is being used for maintenance and is therefore functional and reported as completed.

Objective 4.4 – Use the ER Portal for EMS auditing by March 31, 2016. It is not clear how if this were an objective it would meet the SMART criteria, therefore it was removed as an objective.

Objective 4.5 (action plan) – supplement to “objective 4.1” action plan discussed above. Completed.

Objective 4.6 – Use ER Portal to create work orders for soil sampling requirements for growing season commencing in April 2017. Completed.

Objective 4.7 – Use ER Portal for pre and post season biosolids maintenance items. Completed.

Objective 4.8 – Add NR2 Equipment as assets into ER Portal. In process.

Outcome Areas Impacted: Environmental Performance, Relations with Interested Parties and Quality Biosolids Management Practices.

Goal 7 – Reduce Purchased Electrical Energy by 100% of 2013 baseline by 2022.

Objective 7.1 – Optimize high strength waste (HSW) utilization by 2020. The action required to accomplish this objective is to upgrade facilities to enable increased HSW volume to maximize generation efficiency and energy production. The measurable target for this objective will be to increase gas production at a rate of 1 gallon of HSW = 0.63 kWh. The current status of this is that a long term agreement for a minimum of 4,000 gpd of HSW was finalized in January 2019.

Objective 7.2 – Increase biofuel generator capacity by adding a second generator by the end of 2020. The status of this objective is that the second generator was ordered by March 2019.

Objective 7.3 – Increase digester gas production through increased primary digester capacity sufficient to utilize the increase in HSW by the end of 2022. The construction and modifications needed for objective is estimated to be complete by June 2019.

Objective 7.4 – Install a hydro turbine within the effluent piping from the new RF to the Mississippi River by the end of 2022. This objective requires the installation of a 40 kW hydro turbine to reduce total purchased energy and provide resiliency. The turbine has

ability to produce 48,000 kWh annually. The status is that a preliminary study was completed in November 2018.

Outcome Areas Impacted: Environmental Performance, Relations with Interested Parties and Quality Biosolids Management Practices.

Goal 8 – Reduce Quantity of Phosphorus (pounds) by 60% in St. Cloud’s Biosolids Liquid Product by 2020. The measurability of this goal will be tracked by following the phosphorus concentration in the biosolids as well as the volume of biosolids fertilizer produced. This will ensure regulatory compliance and increase farmer interest in the product.

Objective 8.1 – Reduce the phosphorus concentration in biosolids product from baseline in 2015 of 7.25 mg/L to 3 mg/L by optimizing NR2 processed (WASSTRIP, Ostara) and improving dewatering process to reduce liquid product. The status of this goal and objective has showed on a preliminary basis that there is a 35% reduction of quantity of phosphorus removed compared to the 2018 class B product.

Outcome Areas Impacted: Environmental Performance, Regulatory Compliance, Relations with Interested Parties and Quality Biosolids Management Practices.

CONCLUSIONS AND RECOMMENDATIONS

The results of the interim audit showed the St. Cloud Wastewater Treatment Facility has an excellent Biosolids Environmental Management Program. The NSF lead auditor reviewed and approved the corrective action plans for each of the minor non-conformances identified during the audit. Therefore, it is recommended that the Wastewater Treatment Facilities Biosolids Management Program (BMP), St. Cloud, Minnesota maintain its platinum level recognition certification by the NBP. The full implementation of the corrective actions for the minor non-conformances will be accomplished according to the schedule proposed in the corrective action worksheets. It is expected that the opportunities for improvement will each be addressed although they do not require formal closure.

The results of this and future audits will provide value added to the system and should be viewed as an overall opportunity to improve. Every audit is a snapshot in time, and does not, or cannot, identify each and every area for improvement. And yet, while no single audit identifies all of the areas for improvement the results of each audit provide an additional incremental step in the overall system’s improvement.

Each internal or interim audit will include a review of: the organization's progress toward goals and objectives; BMP outcomes (environmental performance; regulatory compliance; interested party relations; quality practices); actions taken to correct minor non-conformances; the management review process; corrective action requests and responses; and preventive actions. In addition to the above, all of the elements will be audited individually over the four-year interim period between certification audits, such that all elements are addressed.

Based on discussions between the Biosolids Coordinator (EMS Coordinator) and the third party auditor the following tentative interim audit schedule was established to maintain platinum recognition status over the intervening years between certification audits:

Year 6 (completed) –Elements 3, 10, 12, 13

Year 7 (internal audit substitution) – Elements 1, 8, 15, 17

Year 8 (third party) – Elements 5, 6, 9, 14, 16

Year 9 (internal audit substitution) – Elements 2, 4, 7, 11

Year 10 (third party) – Re-verification audit

Attachment 1

Documents and Other Objective Evidence Reviewed During the Interim Audit

Element 1. BMP Manual

- EMS Manual – Version 6 – March 2019
- Biosolids Master Calendar for 2019
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Emma Larson - Public Utilities Water Quality Coordinator

Element 2. Biosolids Management Policy

- Element 2: Biosolids Management Policy, Version 2, dated 7/28/14
- Attachment 2.1: NBP Code of Good Practice
- Attachment 2.2: St. Cloud Biosolids Mission Statement Poster
- Interview with Patrick Shea – Public Services Director
- Interview with Tracy Hodel – Assistant Utilities Director
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator

Element 3. Critical Control Points

- Element 3: Process Control Points, Version 7, dated 1/24/19
- Table 3.1: Process Control Points, Operational Controls, SOPs, Monitoring/Measurements and Potential Significant Impacts.
- St. Cloud Wastewater Treatment Facilities, Process Flow and Biosolids Diagram.
- Reviewed NR2 Process Operations (Ostara and Lystek)
- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with David Wallen – Wastewater Services Specialist
- Interview with Brian Schoenecker - Wastewater Services Manager
- Interview with Emma Larson - Public Utilities Water Quality Coordinator,
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Field review of various critical control points operations

Element 4. Legal and Other Requirements

- Element 4: Legal and Other Requirements, Version 6, dated 3/06/19
- Table 4.1: Legal Requirements and Guidance Specific to City of St. Cloud Biosolids Land Application Program.
- Table 4.2: NPDES Permit Reporting Requirements and Related Reports Submitted.
- Reviewed Pretreatment Program (Significant Industrial Users)
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator

- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with Emma Larson - Public Utilities Water Quality Coordinator,
- Interview with Sherry Bock – Biosolids Coordinator – Resource Management and Assistance Division, Minnesota Pollution Control Agency

Element 5. Goals and Objectives

- Element 5: Goals and Objectives for Continual Improvement, Version 4, dated 1/24/19
- Table 5.1 - Goals and Objectives Template
- Table 5.2 – Goals and Objectives Summary Sheet Template
- Interview with Patrick Shea – Public Services Director
- Interview with Tracy Hodel – Assistant Utilities Director
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with David Wallen – Wastewater Services Specialist
- Reviewed Summary sheet for 2017, 2018 and 2019 Biosolids Management System Goals and Objectives.
- Reviewed Action Plans contained in Goals and Objectives for 2018 and 2019.
- Current Annual Review of Open EMS Goals.

Element 6. Public Participation in Planning

- Element 6: Public Participation in Planning, Version 5, dated 4/12/18
- Attachment 6.1 - Table 6.1 City of St. Cloud Biosolids Management Program Public Participation Mechanisms
- Attachment 6.2 Letter to interested parties – open invitation to observe third party audit (example).
- Element 9: Communication, Version 5, dated 2/23/17
- Interview with Patrick Shea – Public Services Director
- Interview with Tracy Hodel – Assistant Utilities Director
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Sherry Bock – Biosolids Coordinator – Resource Management and Assistance Division, Minnesota Pollution Control Agency
- St. Cloud Public Utilities Website (<http://www.ci.stcloud.mn.us/index.aspx>)
- Biosolids Digester Newsletter 2016, and 2017 (Part of Annual Performance Report).
- Annual Report for 2017 cropping year prepared for Minnesota Pollution Control Agency
- Public invitation to attend interim audit on April 9 through April 10, 2019 dated April 2, 2019. (<http://www.ci.stcloud.mn.us/332/Biosolids-Management-Program.>)

Element 7. Roles and Responsibilities

- Limited Review

Element 8. Training

- Limited Review

Element 9. Communications

- Element 9: Communication, Version 5, dated 2/23/17
- Element 6: Public Participation in Planning, Version 5, dated 4/12/18
- Interview with Patrick Shea – Public Services Director
- Interview with Tracy Hodel – Assistant Utilities Director
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with Sherry Bock – Biosolids Coordinator – Resource Management and Assistance Division, Minnesota Pollution Control Agency
- St. Cloud Public Utilities Website (<http://www.ci.stcloud.mn.us/index.aspx>)
- Biosolids Digester Newsletter 2016, and 2017 (Part of Annual Performance Report).
- Annual Report for 2017 cropping year prepared for Minnesota Pollution Control Agency
- Wastewater Treatment Tour Talking Points

Element 10. Operational Control of Critical Control Points

- St. Cloud Wastewater Treatment Facilities, Process Flow and Biosolids Diagram.
- Element 10: Operational Controls, Version 5, dated 1/24/19
- Element 3: Process Control Points, Version 7, dated 1/24/19
- Table 3.1: Process Control Points, Operational Controls, SOPs, Monitoring/Measurements and Potential Significant Impacts.
- Element 13 – Monitoring and Measurement, Version 3, dated 4/12/18
- St. Cloud Wastewater Treatment Facilities, Process Flow and Biosolids Diagram.
- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Brian Schoenecker - Wastewater Services Manager
- Interview with David Wallen – Wastewater Services Specialist
- Interview with Mark Weyer – Utility Maintenance Mechanic
- Interview with Jeff Vanderweist – Heavy Equipment Operator II
- Interview with Bob and Kieth Klaverkamp – Farmers and biosolids land application users
- Field evaluation of Klaverkamps' fields E2 and F2 (100 acres) in Stearns County.

- Reviewed status of implementation of ER Portal Software for preventive and corrective maintenance
- Reviewed Gravity Belt Thickener Operations
- Reviewed NR2 Process Operations (Ostara and Lystek)
- Discussed Pre-Recycling Season Meeting for 2019

Element 11. Emergency Preparedness and Response

- Element 11: Emergency Response Plan, Version 6, dated 4/02/19
- Attachment 11.1 – Biosolids Transportation and Handling Incident Response Plan
- Attachment 11.2 – Emergency Numbers Card for Vehicles
- Attachment 11.3 – Accident Report Form
- Attachment 11.4 – Biosolids Product Safety Data Sheet
- Attachment 11.5 – Biosolids Emergency Response Equipment: Inventory
- Attachment 11.6 – Public Relations and Communications
- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Brian Schoenecker - Wastewater Services Manager
- Interview with David Wallen – Wastewater Services Specialist
- Interview with Jeff Vanderweist – Heavy Equipment Operator II
- Discussed emergency response training and tabletop exercises.

Element 12. BMP Documentation and Document Control

- Element 12: Documentation, Document Control and Record Keeping, Version 4, dated 3/5/15
- EMS Manual – Version 6 – March 2019
- Biosolids Master Calendar for 2019
- Element 2: Biosolids Management Policy, Version 2, dated 7/28/14
- Attachment 2.1: NBP Code of Good Practice
- Attachment 2.2: St. Cloud Biosolids Mission Statement Poster
- Biosolids Digester Newsletter 2016, and 2017 (Part of Annual Performance Report).
- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Brian Schoenecker - Wastewater Services Manager
- Interview with David Wallen – Wastewater Services Specialist

Element 13. Monitoring and Measurement

- Element 13 – Monitoring and Measurement, Version 3, dated 4/12/18
- Element 10: Operational Controls, Version 5, dated 1/24/19
- Element 3: Process Control Points, Version 7, dated 1/24/19

- Table 3.1: Process Control Points, Operational Controls, SOPs, Monitoring/Measurements and Potential Significant Impacts.
- St. Cloud Wastewater Treatment Facilities, Process Flow and Biosolids Diagram.
- Reviewed NR2 Process Operations (Ostara and Lystek)
- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Brian Schoenecker - Wastewater Services Manager
- Interview with David Wallen – Wastewater Services Specialist
- Interview with Mark Weyer – Utility Maintenance Mechanic
- Interview with Jeff Vanderweist – Heavy Equipment Operator II
- Interview with Bob and Kieth Klaverkamp – Farmers and biosolids land application users
- Interview with Sherry Bock – Biosolids Coordinator – Resource Management and Assistance Division, Minnesota Pollution Control Agency
- Field evaluation of Klaverkamps’ fields E2 and F2 (100 acres) in Stearns County.
- Reviewed status of implementation of ER Portal Software for preventive and corrective maintenance
- Reviewed Gravity Belt Thickener Operations
- Reviewed NR2 Process Operations (Ostara and Lystek)
- Reviewed ER Portal Software for preventive and corrective maintenance
- Annual Review of Open EMS Goals – January 14, 2019

Element 14. Nonconformances: Preventive and Corrective Action

- Element 14: Nonconformance: Preventive Action and Corrective Action, Version 5, dated 4/12/18
- Reference 14.1 – SOP: Creating a Work Order in ER Portal
- Attachment 14.2 – Corrective Action Plan Template
- Reviewed formerly used St. Cloud WWTF Corrective Action Form.
- Reviewed Environmental Management System Corrective/Preventive Action Record form.
- Interview with Brian Schoenecker - Wastewater Services Manager/Internal Co-lead Auditor
- Interview with Chris Plautz – Wastewater Services Supervisor
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with David Wallen – Wastewater Services Specialist
- Reviewed internal audit report for 2019 – conducted 24 January 2019.
- Reviewed corrective action plan status form for audit conducted 1/24/19, CA plan date 3/26/19
- Reviewed Comprehensive Listing of Outstanding Action Items associated with internal audits conducted in 2018 and 2019. Status date: April 2019.

Element 15. Biosolids Management Program Report

- Element 15 – Biosolids Management Report, Version 3, dated 7/28/14
- Interview with Patrick Shea – Public Services Director
- Interview with Tracy Hodel – Assistant Utilities Director
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Chris Plautz – Wastewater Services Supervisor
- Biosolids Digester Newsletter 2016, and 2017 (Part of Annual Performance Report).
- Annual Report Cropping Year 2017 MN0040878 prepared for Minnesota Pollution Control Agency
- Annual Report Cropping Year 2018 MN0040878 prepared for Minnesota Pollution Control Agency

Element 16. Internal BMP Audit

- Element 16: Internal Biosolids Management Program Audit, Version 7, dated 1/24/19
- Attachment 16.1 – Internal Audit Team Details, Lead Auditors Qualifications, Training and Responsibilities.
- Attachment 16.2 – Corrective Action Table Template
- Attachment 16.3 – Internal EMS Audit Schedule 2015 – 2018 (2019 – 2023)
- Interview with Chris Plautz - Wastewater Services Supervisor
- Interview with Brian Schoenecker - Wastewater Services Manager/Co-lead internal auditor
- Interview with Emma Larson - Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Discussed auditor training and qualification requirements
- Reviewed internal audit report for 2019 – conducted 24 January 2019.
- Reviewed corrective action plan status form for audit conducted 1/24/19, CA plan date 3/26/19
- Reviewed Comprehensive Listing of Outstanding Action Items associated with internal audits conducted in 2018 and 2019. Status date: April 2019.

Element 17. Management Review

- Element 17: Management Review, Version 4, dated 4/30/18.
- Attachment 17.1 – St. Cloud Biosolids Management Program, Management Review Agenda template
- Attachment 17.2 - St. Cloud Biosolids Management Program, Management Review Report template
- Attachment 17.3 – Biosolids Management Program Weekly Status Report template
- Attachment 17.4 – Wastewater Update Meeting Summary Agenda Template
- Attachment 17.5 – Master Calendar 2019.

- Annual Review of Open EMS Goals – 2019.
- Interview with Patrick Shea – Public Services Director
- Interview with Tracy Hodel – Assistant Utilities Director
- Interview with Emma Larson – Public Utilities Water Quality Coordinator
- Interview with Shanna Czeck – Environmental Compliance, EMS Coordinator
- Interview with Chris Plautz – Wastewater Services Supervisor
- Reviewed 2018 Management Review Report dated 3/29/2019.