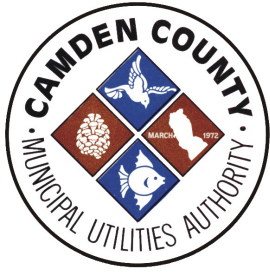


Camden County Municipal Utilities Authority

2013 Environmental Management System Performance Report



VOLUME 4, ISSUE 1

NOVEMBER, 2014

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The National Biosolids Partnership (NBP) is an alliance of the National Association of Clean Water Agencies (NACWA) and WEF, with advisory support from the U.S. Environmental Protection Agency (EPA).

Results of Audit: CCMUA meets NBP Expectations and Requirements

An Interim Audit was conducted December 16 and 17, 2013. The audit was conducted by an independent third party auditor, DEKRA, to verify that CCMUA's Biosolids Environmental Management System is meeting the requirements of the NBP' Biosolids Management Program.

The results of the audit determined that: (1) No major nonconformance and one minor nonconformance remained open at the conclusion of the audit. Approved corrective action plans are in place to address the nonconformance; (2), All nonconformance from prior third party audits have been effectively corrected; and (3), CCMUA's biosolids

management system is generating positive results.

In December, the interim audit was conducted over two days where key persons were interviewed, including Synagro and NJDEP, documents and records were reviewed to assess systematic performance of the process being audited and consistency of the written procedures. At the interim audit, DEKRA found one nonconformance in the CCMUA management system that required correction.

The nonconformance is: The Management Report issued on 12/06/13 did not address performance relative to policy, goals & objectives or

results of internal audits.

This non conformance has now been corrected.

The Auditor found strengths in the CCMUA's community outreach programs, which is a best practice for resource recovery utilities. In addition the Camden Collaborative Initiative is an excellent example of proactive public participation. (see page #5)



CCMUA Conducts Internal Audit

On August 9, 14 and 15, 2013, CCMUA conducted an Internal Audit as required by the National Biosolids Partnership EMS Element #16.

The purpose of the audit was to determine if CCMUA is complying with its Biosolids Management Policy and the NBP Code of Good Practice and begin corrective actions for any findings. The focus of the audit was the new Sludge Drying Facility, response to odor complaints and

nonconformances from the 2012 interim audit.

Three Auditors were selected that were not part of the day-to-day operations of the plant. A worksheet was developed and interviews with plant personnel were conducted to assess the plant's compliance with the 10 principles of the NBP Code of Good Practice.

The audit identified five strengths including CCMUA's significant reduction in the volume of biosolids

generated at the wastewater treatment plant. The audit found that fundamentally CCMUA is meeting their Biosolids Management Policy and Code of Good Practice with some exceptions. There was one item needing correction and one opportunity for improvement. A corrective action plan has been developed for the item needing correction. The opportunity for improvement will be considered during the annual Management Review meeting.

Progress Towards Goals and Objectives

Camden County MUA continues to optimize achievement of its four main long term goals to help continually improve performance of its Environmental Management System. These goals are to:

1. Optimize water quality performance,
2. Optimize air quality/odor control performance
3. Minimize cost to ratepayers and
4. Improve community relationship

In addition, the CCMUA has a num-

ber of objectives which contribute to, and fall under, the overarching umbrella of these main goals. Most of the objectives established for year 2013 were completed and completed on time. Accomplishments include:

- Maintain Effluent TSS <10 PPM
- Maintain Effluent BOD <5 PPM
- "0" Air Permit violations per year
- Conduct at least one inspection of biosolids hauling desti-

nations (i.e. landfill, land application sites) per year

- Reduced energy use from distribution grid by 10% by using solar power
- Update SOPs to reflect EMS requirements.
- Constructed seven new rain gardens during 2013.
- Maintained R&R requirements of \$3.5 million/year or less.

“ Be a good neighbor to the surrounding community with a view to not only doing no harm, with respect to odor impacts, but also to undertake initiatives to improve the quality of life for our neighbors.”

Each year CCMUA establishes objectives to help achieve its main goals and continually improve its Environmental Management System. Listed below are the current goals for 2014.

- Maintain Effluent TSS <10 PPM
- Maintain Effluent BOD <5 PPM
- "0" Air Permit violations and odor complaints per year
- Conduct at least one inspection of biosolids hauling destinations (i.e. landfill, land application sites) per year
- Update all SOPs to reflect EMS requirements
- Reduce energy use from

2014 Objectives

distribution grid by 10% by using solar power.

- Construct at least 10 new rain gardens/year
- Complete Sludge Drying Facility by 2013 to proc-

ess 100% of sludge produced

- Maintain R&R requirements to \$3.5 million/year or less.
- Use 100% green energy by 2017



Regulatory Compliance

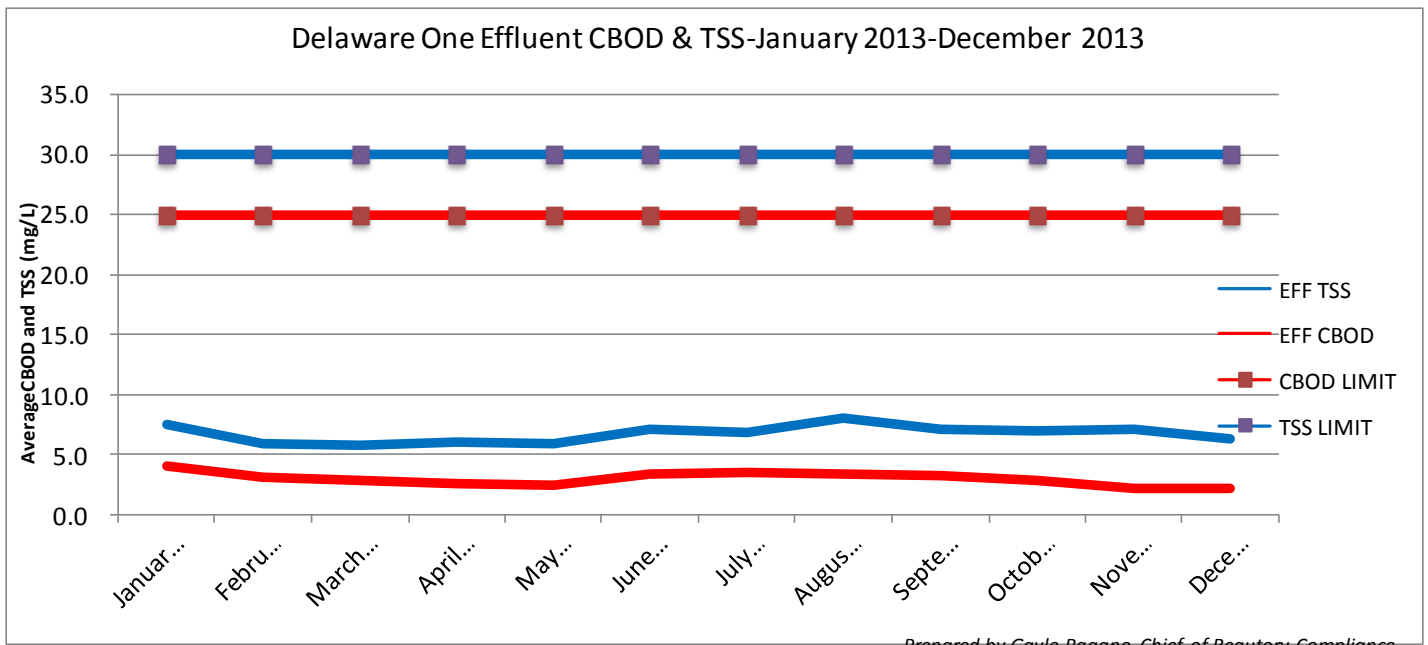
CCMUA’s Environmental Management System complies with all applicable federal, state, and local requirements.

CCMUA’s plant effluent concentrations of TSS and BOD are averaging below 15 mg/l and 10 mg/l, respectively, which is significantly lower than the discharge permit requirements of 30 mg/l and 25

mg/l, respectively. Zero non-compliances occurred in the past year.

Biosolids produced at CCMUA met all standards required by U.S. EPA for metal concentrations.

Below is a graph with both the permit limits and test results for 2013.



Prepared by Gayle Pagano, Chief of Regulatory Compliance

Environmental and Contractor Performance

One of the main priorities for CCMUA is to minimize adverse impact from odors emanating from the wastewater treatment and sludge disposal process. This is being done both through implementation of a “zero tolerance” policy for odors, and through capital improvements. The CCMUA has also been pursuing this goal through implementation of successful odor

control strategies, such as assigning additional supervisors, operators and maintenance staff on weekends, produce sludge cake with solids concentration of at least 27% to reduce the amount of sludge to be hauled out from plant, and minimization of off-site sludge hauling during off hours. In 2013 CCMUA again had “0” air permit violations.

In 2013 CCMUA representatives also performed random inspections of the truck hauling process during biosolids loading and inspected a minor reclamation site which applies CCMUA biosolids. The inspections are conducted in order to insure that hauling contractors are following correct procedures and complying with CCMUA’s established standards.

CCMUA Completes Green Infrastructure Projects

On October 15, 2013, the NJ Tree Foundation (NJTF), with assistance of Camden City, CCMUA and TD Bank, undertook the largest tree planting in Camden City. Over 90 TD bank volunteers planted the trees as part of TD Tree Day. The deciduous and evergreen trees planted absorb odors and stormwater, improve air quality, provide shade, beautify Liney Ditch Park, and provide wildlife habitat. The 117 new trees planted are now part of the shelterbelt surrounding the CCMUA Waste Water Treatment Plant.

The community partners for this tree planting include the NJ Tree Foundation, the Heart of Camden (HOC), Center for

Environmental Transformation (CFET), Camden Stormwater Management and Resource Training (SMART), Camden Special Services District (CSSD) and the City of Camden. The HOC and the CFET are neighborhood-based nonprofits that use the park often and have requested trees from the NJ Tree Foundation. Camden SMART planted the Ferry Avenue rain garden and had requested trees for that location. CSSD is responsible for watering the new trees. This is one of seven Camden SMART, 2013 projects. The Authority's community outreach is done through many of the Camden SMART projects.



Camden SMART Project	Street Address	Neighborhood	Completion Date	Gallons of Storm-water Captured per Year
Front St. Community Garden Rainwater Harvesting	N Front St at Penn Street	Cooper Grant	March-13	5,000
Pyne Point School	N 7th Street @ Erie Street	North Camden	April-13	47,700
Yorkship Elementary School Rain Garden	1251 Collings Ave	Fairview	May-13	22,500
Urban Promise Academy Rain Garden	27 N 36th Street	Rosedale/East Camden	May-13	22,500
2013 Rain Barrel Program (95 Rain Barrels)	Camden City	Camden City	June-13	123,500
St. Anthony's Rain Garden	29th St @ River Ave	Cramer Hill	July-13	175,000
Liney Ditch Park Shelterbelt Tree Planting	Jasper Street	Waterfront South	October-13	117,000
			TOTAL:	513,200

Camden Collaborative Initiative

The Camden Collaborative Initiative is a solutions-oriented partnership between governmental, non-profit, private, and community-based agencies formed to plan and implement innovative strategies to improve the environment and the quality of life of Camden's residents.

On January 24, 2013, the City of Camden, with the support of Cooper's Ferry Partnership, Camden County Municipal Utili-

ties Authority, New Jersey Department of Environmental Protection, and the United States Environmental Protection Agency, launched the Camden Collaborative Initiative. The Collaborative is building upon the success of environmental initiatives underway, made possible by the efforts and resources of multiple partners that have come together to address the complex environmental

issues present in the City. The Camden Collaborative Initiative was formed to realize the many opportunities to maintain, restore, and enhance the environmental resources in the city. The Collaborative will facilitate and leverage partnerships for proactive, holistic, and innovative solutions to help Camden become a vibrant sustainable city.

Camden Collaborative Members:

United States Environmental Protection Agency, New Jersey Department of Environmental Protection, The Nature Conservancy, New Jersey Tree Foundation, New Jersey Conservation Foundation, New Jersey Department of Education, National Park Service, New Jersey Academy for Aquatic Sciences, Cooper's Ferry Partnership, Delaware Valley Regional Planning Commission, Rutgers Cooperative Extension Water Resources Program, City of

Camden, Camden Redevelopment Agency, Camden County Soil Conservation District, Camden County Environmental Affairs, Camden County Technical School, Camden County YMCA, Center for Environmental Transformation, Citizens Campaign, Delaware Riverkeeper, New-
ton Creek Watershed Association, Partnership for the Delaware Estuary, Philadelphia Zoo, Rutgers University-

Camden Office of Civic Engagement, Urban Promise, Tri-State Transportation Campaign, CDM Smith, Center for Family Services, Neighborhood Center, Camden City School District, Cooper Grant Neighborhood Association, Cherry Hill Township, City of Camden Public Works, ReCommunity

CCMUA Continues to Reduce Odors, Lower Fuel and Disposal Costs

Sludge Drying Facility

By the end of 2013, all three of the sludge dryers were operating. During most of the year two of the three dryers were operating and processing most of the sludge from our facility. At full capacity the dryers will process an average of 160 tons of sludge per day. The Dryers have reduced the quantity of sludge to 40 tons per day and thereby significantly reduced disposal costs by 50 percent.

In addition to sludge disposal costs, odors have been reduced as a result of the reduction in truck traffic by at least 80%. This reduction will also help to improve the quality of life for

the surrounding neighborhood.

Other benefits of the sludge drying facility include a reduction in carbon emissions. The sludge from the dryer is being converted to a renewable fuel which creates energy and powers manufacturing operations. The Authority's sludge will be burned instead of over 6,000 tons of coal. This substitution of dried sludge for coal will reduce carbon emissions by 17,000 tons annually.

During 2013 the Authority continued to explore the addition of a Sludge Digester in order to lower fuel and disposal costs. Management will continue to evaluate this during 2014.



Camden County Municipal Utilities Authority

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MISSION STATEMENT

Total commitment to our customers, public health and quality wastewater management through teamwork and individual effort by participating in ongoing training, education and research, maintaining regulatory compliance, and striving for continuous improvement of systems and services.

EMS Team Members:

- Andrew H. Kricun, Executive Director
- Robert G. Cornforth, Director of O&M
- Jack J. Connolly, Jr., Assistant Director of O&M
- Gayle Pagano, Chief of Regulatory Compliance
- Steve Lee, Chief Operator
- Jeff Wilson, Sludge Distribution Coordinator
- Douglas Burns, EMS Coordinator