

## Biosolids Annual Management Review of EMS Performance

Reporting Period: August 1, 2013-July 31, 2014

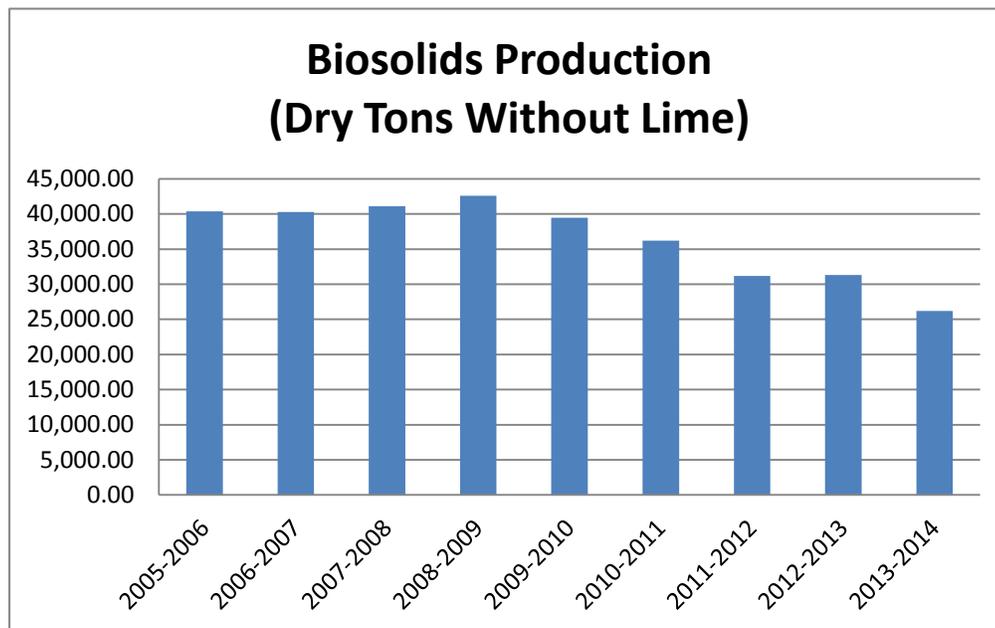
Date: October 06, 2014

Time: 1:30pm

| Present: | <u>Name</u>    | <u>Representing</u>       |
|----------|----------------|---------------------------|
|          | Buster Fichera | City of Fort Worth        |
|          | Steve Nutter   | City of Fort Worth        |
|          | Jerry Pressley | City of Fort Worth        |
|          | Laly Joseph    | City of Fort Worth        |
|          | Stacy Walters  | City of Fort Worth        |
|          | Magan Lersch   | City of Fort Worth        |
|          | Ben Davis      | Renda Environmental, Inc. |

### *Accomplishments since last review*

- 26,215.68 dry tons (without lime) were produced
- 29,122.67 tons (with lime) were applied to 4 counties.
- Production has gone down since last year. It's possible this is attributable to better anaerobic digestion, maybe even conservation and the drought.



### *Changes to policy*

- This year the policy needs to be changed to reflect the new Class AB change. The proposed change is below. It was discussed that it will be emailed to the team so that they may submit suggestions.

## CURRENT POLICY

*The City of Fort Worth is committed to:*

- *Sustaining the 100 percent beneficial reuse/recycling of exceptional quality (EQ), Class A biosolids produced at Village Creek Wastewater Treatment Plant that comply with all federal, state and local requirements and are consistent with the NBP Code of Good Practice.*
- *Maintaining a diversified beneficial use of biosolids program in which the City and our Contractor will continue with effective control and compliance to investigate and implement feasible, innovative and cost effective options in protecting the health and safety of the public and the environment.*

## PROPOSED POLICY

*The City of Fort Worth is committed to maintaining a diversified biosolids program in which the City and our Contractor will continue with effective control and compliance to investigate and implement feasible, innovative and cost effective options in protecting the health and safety of the public and the environment. Our goal is to beneficially reuse/recycle 100% of the Class AB biosolids produced at Village Creek Water Reclamation Facility that comply with all federal, state and local requirements and are consistent with the National Biosolids Partnership Code of Good Practice.*

### **Goals & Objectives-Advancements towards existing goals and objectives and identifying “New” goals and objectives**

***The following was discussed during the meeting.***

- Goal: Sludge De-Gritting Disposal
  - During the meeting we discussed how the grit system would need to be scaled up in order to handle the flow.
  - We need to determine if grit washing is effective.
  - We need to determine how much grit we're sending to Renda.
  - Does the grit affect the total solids going to Renda?
  - We possibly need to amend this goal to include talking to vendors about commercial systems.
  - Because the current grit system will be inadequate for the flow, we should amend this goal to be complete at the end of 2015.
- Goal: Create a Biosolids Master Plan
  - Draft Master Plan report has been completed.
- Goal: Study to Evaluate Biosolids Odors Associated with High Strength Wastes, Polymer, Lime Addition
  - The end goal is to reduce odor complaints to what they were in 2008.
  - This study was done with Perkins Engineering and a final report has been submitted.
  - Basically what was determined was that lime had more of an effect on odors than polymer or the high strength wastes.
- Goal: Increase Biosolids Outreach Activities in Response to Public Concerns
  - 43 tours (1238 individuals) were given at Village Creek during the reporting year.
  - 2 high schools were visited and a presentation was given regarding the plant process at VC and biosolids. Extra information regarding stormwater runoff

- issues, food crop safety, cost, and odors was presented with the biosolids information.
- A complaint form was made, although unable to be posted, for the City's website for citizens to submit in the event that they experienced a biosolids odor or tracking issue.
  - It was suggested that a specific contact in the Water Dept. was able to do this and to contact them for help on getting it posted to the City's site.
  - WEAT may be able to assist in outreach efforts in terms of responding to news articles or editorials in local papers regarding biosolids-sometimes the information that is reported to the public is not correct information.
  - Goal: Utilize Scum Screenings as Organic Source for Co-Digestion
    - The construction is currently happening with an end goal of an increase in gas production.
  - Goal: Install 3<sup>rd</sup> GBT Unit to Increase Solids Stability
    - The construction phase is almost complete. The final stages of performance testing were completed on 10-03-2014, but there are still some issues that need to be addressed before it's put in service.
  - Goal: Arcadis Biosolids Study-Evaluate Solids Production at Village Creek and SOL
    - The final report has not been issued.
    - The biosolids odor/dewatering issues are very complex and it's difficult to pinpoint an exact cause. Most likely there are several factors contributing together that are causing the issues.
  - Goal: DAFT Overflow Project
    - The project has been completed, but we are still in our 3-month trial period to see if there is any increase in percent solids (prior to lime addition). The end goal was a 2% increase, but so far the results do not show a significant change.
  - Goal: Dewatering Facility Upgrades
    - Most of the design phase has been completed, but improvements are unlikely to begin until early next year.
    - The idea is to update the polymer feed system, lime system and install a 6<sup>th</sup> belt press in order to increase percent solids.

### ***Corrective Action Notices***

- The only pending CAN is 2013-13 regarding plant SOPs.
- Considerable progress has been made in completing and updating SOPs.
- The external audit in 2012 found the plant SOPs to be deficient and a major nonconformance was cited. However, due to the progress that was made, the external audit in 2013 downgraded the major nonconformance to a minor nonconformance.

### ***Internal EMS Audit Results***

- Two nonconformances were observed during the internal audit.
  - Complaints were diligently recording in the Complaint Log, but the accompanying Biosolids Complaint Form was not filled out. This has already been addressed for complaints that have been received after the internal audit occurred; complaint forms have been completed.

- Element 14, which concerns nonconformances, specified that Corrective Action Notices (CANs) would be evaluated during the audit. However, Element 16, which concerns the internal audit, did not state the same procedure. These two elements were updated to reflect the same language.
- CANs were evaluated during the internal audit on September 29, 2014.

***External third-party Interim & Verification EMS audits***

- The external audit from last year (Oct 16-18, 2013) resulted in 6 non-conformances.
  - All nonconformances (which were considered minor) have been addressed through CANs and only one regarding SOPs remains open.
  - There were several opportunities for improvement, and necessary changes were made to incorporate these improvements into our program.
  - The CANs that resulted from this audit are summarized in the Annual Performance Report on pages 15-17.
- A third party audit is scheduled for October 8-10, 2014.

***Legal and self-imposed regulation compliance***

- New TCEQ requirements went into effect on October 2, 2014. These include the posting of signage at land application sites indicating the site receives biosolids material. Another requirement is the implementation of an odor control plan which will be effective 90 days after the new TPDES permit is issued. The new permit has not been issued yet.
- A major change that came from the new TCEQ requirements is a reclassification of our biosolids. We are now classified as Class AB instead of Class A. Nothing has changed in our operation. The change basically distinguishes those facilities that utilize some form of heat treatment from those that do not.

***Reports on emergencies, spills or other incidents***

- There were several spill complaints in March 2014.
- A CAN was issued to address the issue of material being spilled on public roadways.
- Renda inspected and replaced all seals and latches on dump trucks and pup trailers.
- An additional latch was also installed on dump trucks and pup trailers to create more pressure against the seals.
- Renda updated their SOP and retrained drivers.

***Update to critical control points***

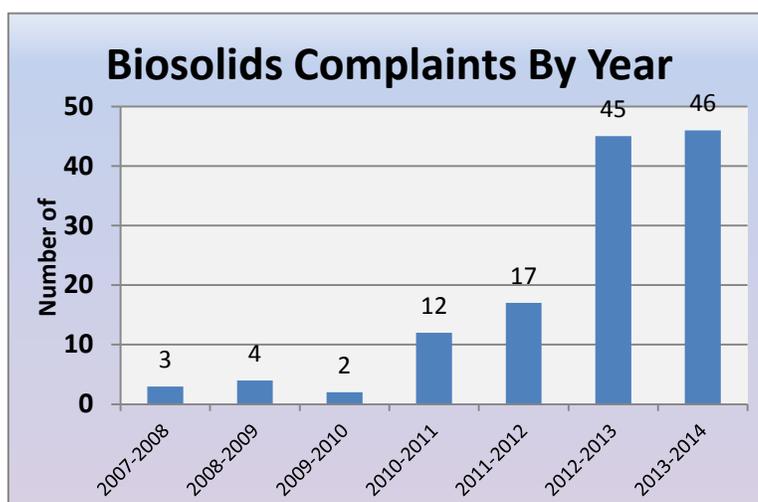
- Minor update to critical control points this year.
  - Wet weather storage pads were removed from the table because we are only using the Sludge Only Landfill as a wet weather storage option.
  - Because TCEQ was not approving any in the state, Renda discontinued the approval process for the wet weather sites in Wise and Parker County.

***External communication and public participation***

- County commissioners continue to be notified when land application activities are to start in their precinct.
- Public feedback seems to have increased, but it is most likely attributable to the more thorough documentation and assessment of comments for the development of new goals.

### **Changing circumstances/ Other biosolids performance measures**

- We had 46 odor complaints this year.
  - Two odor studies were conducted because of the increase in odor complaints that started last year.
- From August 1, 2013 to July 31, 2014, 114 land application site visits were performed.



### **Future Plans/Advances in Biosolids Technology**

- Biosolids Odor Study (Arcadis)
  - The final report has not been issued yet and a single cause of the odors/dewatering issues has not been found.
  - The study highlighted how complex the issue is made by all the potential contributing factors.
- Scum System
  - The goal is to use scum screenings as an organic source for the codigestion to increase gas production and increase solids stability.
- Biosolids Master Plan
  - The purpose of the Biosolids Master Plan is to identify alternatives and cost savings in the short and long term in regards to solids management.
- Thermal Dryers
  - In July 2014, two dryers from competing companies were brought to the Sludge Only Landfill to see whether or not they were effective in producing Class A biosolids.
  - The dryers' effectiveness at removing or reducing odors was also evaluated.
  - A complete evaluation of the dryers' effectiveness is still ongoing.
  - It is still possible that thermal dryers will be an option in the future.
- Grit System
  - A project to evaluate the feasibility of a grit removal system was started this June. The system has not been running consistently and there are still issues to be addressed. The goal is to remove all grit from the plant and divert it to the landfill for final disposal.
  - The removal of grit could potentially allow us to use volatile solids reduction as our vector attraction reduction requirement instead of using the pH requirement we currently use. The reduction of lime could alleviate our odor issue, but we still need to be able to meet our pathogen control requirements, which lime also helps us do currently.

### **Review status of operation control procedures**

- Progress continues to be made and by September 2014, several Village Creek SOPs were updated and completed.