

April 1, 2011

Fox Metro Water Reclamation District Tour
Sponsor - City of Montgomery Planning Group

Feature Speaker: Tom Muth, District Manager

Resource Speaker: Gregory Buchner, Biosolids Program Project Manager, Deuchler Environmental.

Others of Note: Jonathan Hall, P.E. Capital Program Engineer, City of Joliet.

Audience attending – Approximately 15 people

Fox Metro was incorporated in 1927. Since has grown to service 300,000 population covering 150 square miles. The plant site is 65 acres in land mass and staffed by 80 people. The facility processes 36 million gallons of waste water daily. They have 85 million gallons/day capacity which is sometimes reached during heavy rain periods. Final process administered to the waste water is chlorination followed by dechlorination to reach “Swimmable” specification before discharge to the Fox River.

Digester gas, containing about 60% methane, is captured and burned in boilers for a heat source to promote decomposition of biosolids. This gas can also be used to fuel two motor generators to provide electricity to the plant.

Liquid biosolids are processed in anaerobic vessels at 98 degrees Fahrenheit for time periods greater than 15 days. Centrifuges are used to remove excess water from the liquid biosolids to produce a cake that is 20% water and 80% solids. Process improvement plans are in place to increase the biosolids digestion temperature to 130 degrees Fahrenheit enabling the plant to produce Class “A” Biosolids in the near future. The District presently produces 6,800 dry tons/year or the equivalent of 34,000 cubic yards of Class “B” Biosolid. This product is spread on local farm fields by Ag-Tech Services, Inc. Plano, Illinois. If required to dispose in landfill facilities, the cost would be about \$40.00/ cubic yard.

Testing laboratory facilities are located on site. Staff of four chemists was on duty performing their work. Testing for fecal coliform bacteria in water was explained in detail. Specialized testing equipment is used to capture any bacteria present on small filter disks. The disks are then placed on growth media saturated fibrous pads that provides a certifiable controlled growth environment for determining pollution level of the water sample. The process requires 24 hours to complete by trained personnel.

Special thanks to Fox Metro Staff for their hospitality and community service. Congratulations are also in order as this group will have completed its \$55+ million plant upgrade/renovation program within the coming year.

Sincerely,

Jerry E. Elliott
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