



City of Chattanooga Biosolids Management Program and National Biosolids Partnership

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www.biosolids.org



Outline of Presentation

- What is Chattanooga's Biosolids Management Program?
- What Is the National Biosolids Partnership (NBP)?
- What is My Role as an Employee?

What Are Biosolids?



Previous Disposal Method



- Pay to Haul and Bury in Landfill
- Uses up \$2.8 million in Landfill space per year
- Disposes \$530,000 value of Nitrogen nutrients
- Requires 16,900,000 cu ft of natural gas to make the same fertilizer equivalent

Current Disposal Method



- Land Application to Farm Land
- Nutrient Value provided Free to Participating Farmers
- City pays contractor (Synagro) to stage, haul, and spread

So What is Important About a Biosolids Management Policy and What is this National Biosolids Partnership?



VS



MBWWTP Plays a Critical Role in Protecting the Local Environment

Our community relies on us to:

- Keep our rivers and lakes clean
- Protect public health
- Recycle valuable nutrients
- Keep costs to a minimum



National Biosolids Partnership (NBP)

- Partnership of Three Organizations
- Committed to Environmentally Sound Biosolids Management
- Committed to Improved Communication with Public and other Stakeholders



Chattanooga and the NBP

- Chattanooga Began Land Application in April, 2005
- Chattanooga also entered the NBP Program in April, 2005



Chattanooga and the NBP

- NBP Memorandum of Understanding signed August 10, 2005
- Chattanooga was 85th Agency nationwide to join the NBP and the FIRST in Tennessee to be NBP certified

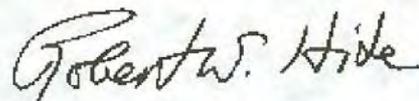


Code of Good Practice Club

The National Biosolids Partnership
Awards this Certificate To:

City of Chattanooga Department of Public Works
Chattanooga, TN

In Recognition of their Commitment to Environmental Improvement
and Adoption of Best Biosolids Management Practice.
Presented This 20th Day of March 2006



Robert W. Hite
Chair, NBP



Chattanooga Biosolids Management Policy Statement:

“The City of Chattanooga is committed to beneficial reuse of biosolids, pursuing options that are publicly acceptable, environmentally sound, cost effective, and provide flexibility with respect to end use”



Benefits of Joining the NBP

- Achieve and Maintain Public Acceptance of Chattanooga's Biosolids Program
- Develop and Implement a Management Tool for Environmental Stewardship
- Maintain and Improve Product Quality and Operational Efficiencies
- Improve Communications with the Public and Regulatory Officials

BMS is for Biosolids Management System



**CITY OF CHATTANOOGA
BIOSOLIDS MANAGEMENT SYSTEM
(BMS) MANUAL**



City of Chattanooga – Waste Resources Division
455 Moccasin Bend Road
Chattanooga, Tennessee 37405

The EMS Promotes Four Key Outcomes:

Quality Management Practices

Ensure consistent product quality

Relations with interested parties

Establish and maintain credibility

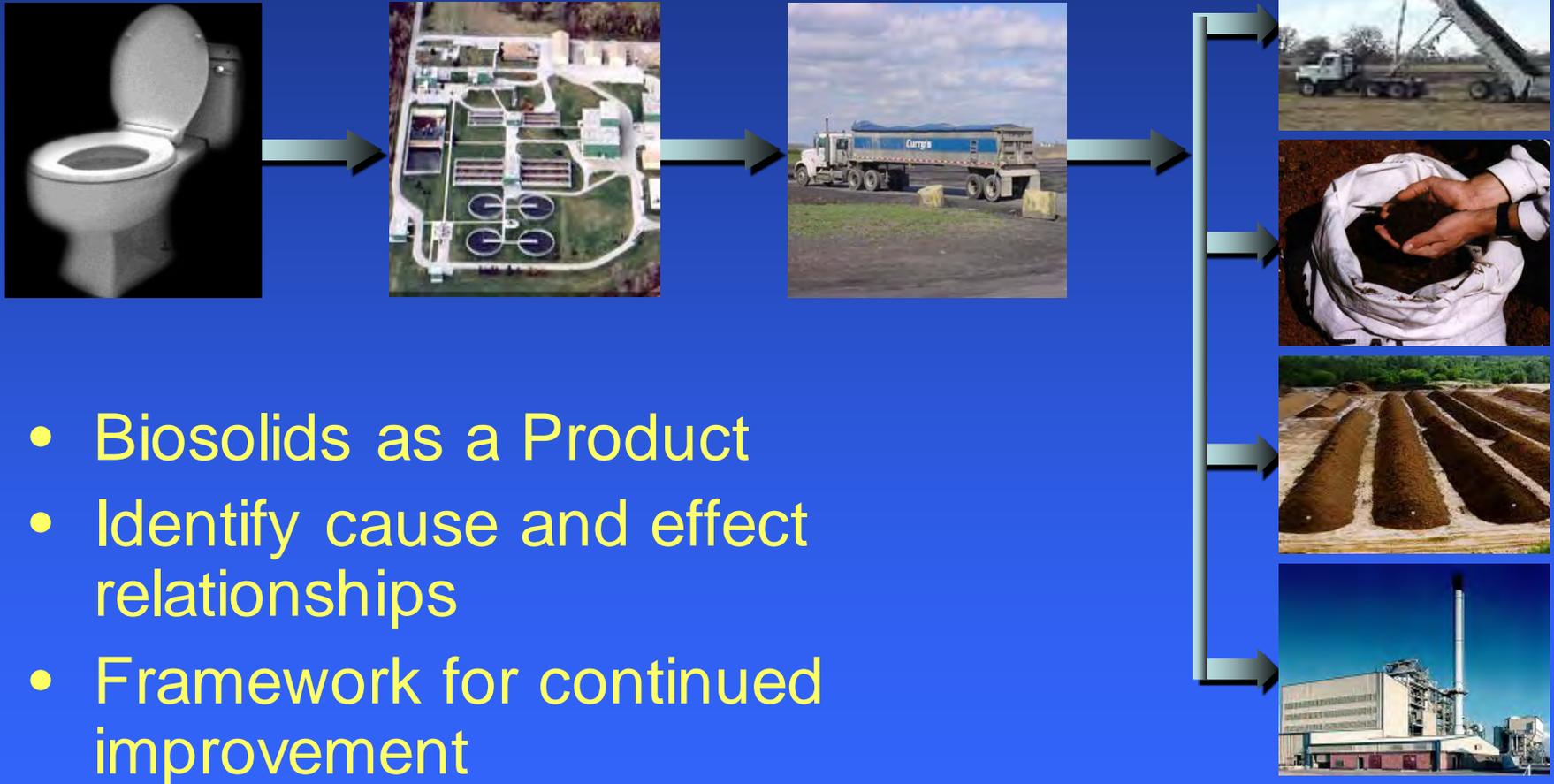
Regulatory Compliance

Meet or exceed compliance with regulatory requirements

Environmental Performance

Protect the environment for future generations

EMS is Management of Entire Biosolids Value Chain



- Biosolids as a Product
- Identify cause and effect relationships
- Framework for continued improvement

An EMS is an organized process for managing environmental activities



Employees Play a Critical Role

Critical Control Points Affect the Quality of the Biosolids

Examples:

- Control of Industrial Waste
- Screening at Influent
- Primary & Secondary Solids Generation
- Thickening to Facilitate Dewatering
- On-Site Staging

Critical Control Points Affect Regulatory Compliance

Examples:

- Control of Industrial Waste
- Primary & Secondary Solids Generation
- Sludge Blending Ratios
- Post Lime Addition
- On-Site Staging
- Land Application

Employees Play a Critical Role

Critical Control Points Affect Environmental Performance

Examples:

- Control of Industrial Waste
- Screening at Influent
- Sludge Blending and Dewatering
- Post Lime Addition
- On-Site Staging
- Land Application

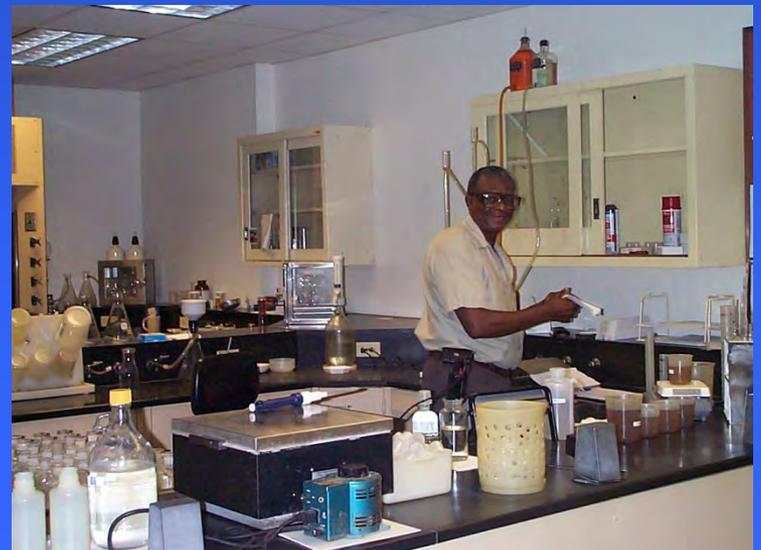
Critical Control Points Affect Relations with Interested Parties

Examples:

- Biosolids Quality
- On-Site Staging and Vector Attraction
- Transportation to Land Application Sites
- Land Application

Focus is on *Continual Improvement*

- Setting the right goals
- Making clear assignments of roles
- Measuring progress/ auditing procedures
- Reporting on progress and success
- Repeating



What is Important about an SOP (Standard Operating Procedure)?


CITY OF CHATTANOOGA – WASTE RESOURCES DIVISION
Moccasin Bend Wastewater Treatment Plant
Biosolids Handling
Onsite Operations

Title: Onsite Loading (Centrifuge Dewatering: CB2)

SOP Number	Revision Number	Approval Signature	Effective Date	Date of Last Review
BIO 00012	01		06/14/07	00/00/00

Scope: Covers on site loading operations for the centrifuge dewatering operations at Centrifuge Building No. 2 (CB2).

Purpose: To define the procedures associated with the loading of biosolids from the centrifuge dewatering process in CB2 into Contractor tandem dump trucks, roll-off trucks and containers, or trucks with dump trailers (trucks with dump trailers are used primarily).

Responsibility: Contractor (Recyc LLC) for providing drivers, trucks, trailers, or roll-off containers and related fuel and maintenance.
MBWWTP Plant Operators (Solids) for operation of centrifuges and conveyor system
MBWWTP Maintenance Mechanics, Electricians, and Instrumentation Technicians for maintenance of conveyors and controls

Frequency: Daily (M-F) and weekends and holidays as required.

Emergency Contacts: Contractor (Recyc LLC)
MBWWTP Plant Operations Supervisor- Solids Handling

General Information: Centrifuge Building No. 2 houses two (2) Flotwegg Kruger Model _____ high G centrifuges. These centrifuges are the primary dewatering units. The centrifuge cake from this building is discharged via fixed shaft less screw conveyors into Contractor tandem dump trucks, roll-off trucks and containers, or trucks with dump trailers (trucks with dump trailers are used primarily).

- Consistency
- Documentation
- Training
- Improving
- Revising

Employees Contribute to the Program Success



Employees Contribute to the Program Success



The Desired Goal . . .



. . . Continued Maintenance of the
National Biosolids Partnership
Certification Seal

Questions and/or Comments?

www.chattanooga.gov/Biosolids

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