

ATTACHMENT A

Chapter 5 PowerPoint Presentation

County of Los Angeles Countywide Siting Element

Chapter 5 Discussion Alternative Disposal Technologies

Items of Discussion

- Purpose of This Chapter
- Clarification of Widely Used Terms
- Key Issues to be Addressed
- Incorporating by Reference the Conversion Technology Evaluation Report
- Task Force Efforts

Purpose of Chapter 5

- Describe technologies that provide alternatives to landfill disposal of solid waste
- Provide brief assessment on current development, limitations, and potential landfill capacity savings of such alternatives
- Describe various potential landfill capacity saving measures

Purpose of Chapter 5

- Assess the technical, economic and environmental viability of these technologies to manage solid waste
- Describe the unique issues concerning the permitting, siting, and development of conversion technologies
- Identify the County of Los Angeles' studies regarding challenges and benefits to alternative technologies.

Clarification of Widely Used Terms

Recognizing the complexity, sensitivity, and uncertainty of issues in Chapter 5 including but not limited to the definition and categorization of transformation and conversion technologies, we propose to clarify a number of closely related terms in order to reduce confusion.

Proposed Definitions

Combustion is defined as an oxidation process – a reaction between a fuel and an oxidant, typically ambient air or oxygen – producing an exothermic reaction in the form of heat. Full combustion includes complete reactions in the form of heat and a full flame. This definition is from the American Heritage Dictionary.

Proposed Definitions, cont.

Conversion technologies refer to a wide array of state of the art technologies capable of converting post-recycled or residual solid waste into useful products, green fuels, and renewable energy through non-combustion thermal, chemical, or biological processes. Conversion technologies do not include mechanical processes. This definition is based on the Conversion Technology Evaluation Report adopted by the Task Force.

Proposed Definitions , cont.

Incineration is defined as an oxidation reaction including heat and flame, that reduces the fuel to the state of ash.

Transformation is a term defined in California statute (PRC 40201) to include “incineration, pyrolysis, distillation, or biological conversion other than composting.” Because the term as defined in statute does not make a distinction between incineration and conversion technologies, this Chapter will not reference this term.

Proposed Definitions , cont.

Waste-to-Energy is a generic term for a process that uses solid waste to produce energy, however this term has become synonymous with incineration that generates electricity from the waste heat.

Structural & Topical Issues

- What is the purpose of this chapter as revised?
- How do we define conversion technologies in order to make a clear distinction between conversion and incineration?
- Is redefining the term “transformation” the best way to accomplish this clear distinction, or will the different uses for “transformation” cause greater confusion among the public?

Structural & Topical Issues

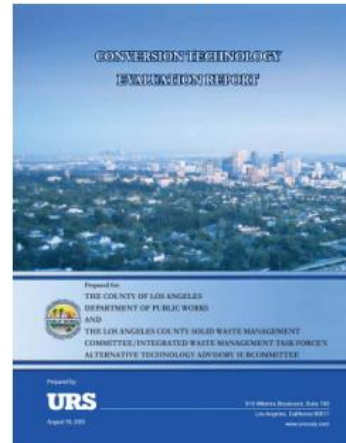
- Should specific (proprietary) processes be described in the Siting Element?
- Instead, can that level of detail be incorporated by reference via the *Conversion Technology Evaluation Report*?
- Should disposal technologies (including landfills and operating transformation facilities) be included in Chapter 5 or elsewhere in the Siting Element?

Structural & Topical Issues

- How should the variety of alternatives to disposal and methods for extending the life of existing disposal facilities be classified?
- Staff's proposal is to define three major classifications:
 - Incineration
 - Conversion Technologies
 - Other Alternatives

Conversion Technology Evaluation Report

- ❖ “Conversion Technology Evaluation Report” officially adopted by the Task Force on August 18, 2005.
- ❖ The Report assessed the viability of various conversion technologies.
- ❖ The Report includes detailed and up-to-date information regarding hundreds of technologies.
- ❖ Includes thorough explanation of thermal, biological, and chemical conversion processes, as well as schematics and diagrams.



Reasons to Incorporate the Evaluation Report by Reference

- Reduces text explaining details of conversion process types within the Siting Element.
- Eliminates need to include schematics for various conversion processes.
- Siting Element would not become out of date as details regarding specific technologies change.
- Siting Element can focus on “bigger picture” issues.

Sample Schematics

FIGURE 1-6
SIMPLIFIED TYPICAL MSW ANAEROBIC DIGESTION
PROCESS SCHEMATIC (after Legrand et al. 1989)

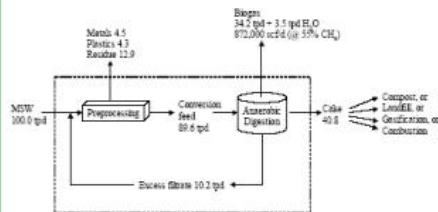


FIGURE 1-1
TYPICAL PYROLYSIS SYSTEM FOR POWER GENERATION

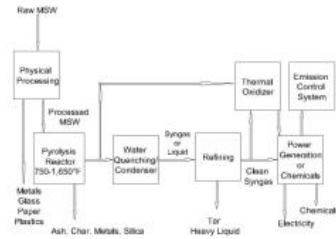
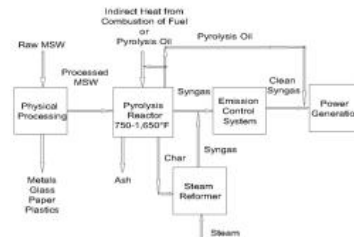


FIGURE 1-2
TYPICAL PYROLYSIS/STEAM REFORMING
SYSTEM FOR POWER GENERATION



Task Force Efforts

- Task Force is responsible for the review of:
 - ✓ Source Reduction and Recycling Element (SRRE)
 - ✓ Non-Disposal Facility Element (NDFE)
 - ✓ Findings of Conformance (FOC)
 - ✓ County Integrated Waste Management Plan (CIWMP)

Task Force Efforts

- The County, the Task Force and the Alternative Technology Advisory Subcommittee have supported conversion technologies and alternatives to landfilling for over a decade.
- Siting Element can reflect the efforts of the County and the Task Force, including establishing the Alternative Technology Advisory Subcommittee, adopting the comprehensive CT Evaluation Report, efforts to sponsor legislation, all the way up to the current contracts for facilitation of a demonstration facility and public outreach.

Other Updated Alternative Technologies Considered

- Biostabilization/Leachate Recirculation
- Landfill Mining/Reclamation
- Balefills
- Shredfills
- Waste Compaction



Other Updated Alternative Technologies Considered

- Bioreactor Landfills
- Waste Autoclaves
- Exclusion of Specific Waste Streams
 - Biodegradable Waste
 - Inert Waste
 - Universal Waste

ATTACHMENT B

Chapter 5 Table of Contents

November 9, 2006

To: Members of the Facility and Plan Review Subcommittee
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force

From: Chuk Agu, staff

**POTENTIAL REVISIONS TO CHAPTER 5 OF THE
LOS ANGELES COUNTY COUNTYWIDE SITING ELEMENT**

Recognizing the complexity, sensitivity, and uncertainty of issues in Chapter 5 (Alternative Disposal Technologies) including the definition, distinction, and categorization of transformation and conversion technologies, we are seeking Subcommittee guidance on how Chapter 5 should be structured. Attached is a proposed table of contents which we will be discussing at the November 16, 2006, Subcommittee meeting. Based on input received from the Subcommittee, we will prepare a preliminary draft of Chapter 5 and submit it to the Subcommittee for review and approval.

If you have any questions, please contact me at (626) 458-3556, Monday through Thursday, 7 a.m. to 5:30 p.m.

NH/CA:

Attach.

CHAPTER 5 – ALTERNATIVE ~~DISPOSAL~~ TECHNOLOGIES

5.1 DEFINITION OF TERMS

5.1.1 Combustion

5.1.2 Conversion Technologies

5.1.3 Incineration

5.1.4 Transformation

5.1.5 Waste-to-Energy

5.2~~4~~ INTRODUCTION AND PURPOSE

5.2~~4~~.1 Introduction

5.2~~4~~.2 Purpose

5.3~~2~~ COMBUSTION FACILITIES ~~SOLID WASTE DISPOSAL FACILITIES~~

~~5.2.1 Landfill Facilities~~

~~5.2.2 Transformation Facilities~~

5.3.1 Incineration

5.3.1.1 Fluidized Bed Combustion Systems

5.3.1.2 Mass-Fired Combustion Systems

5.3.1.2.1 Commerce Refuse-to-Energy Facility

5.3.1.2.2 Southeast Resource Recovery Facility

5.3.1.3 RDF-Fired Combustion Systems

5.3.1.4 Rotary Cascading Bed Combustion Systems

5.3.2 Biomass Conversion (Combustion) Facilities

5.4~~3~~ CONVERSION TECHNOLOGIES ~~ALTERNATIVE SOLID WASTE DISPOSAL TECHNOLOGIES~~

5.4~~3~~.1 Thermal Conversion Processes

~~5.3.1.1 Combustion Systems (Waste-to-Energy)~~

5.4~~3~~.1.1~~2~~ Pyrolysis Systems

5.4~~3~~.1.3~~2~~ Gasification Systems

5.4.1.2.1 Fixed Bed Gasification System

5.4.1.2.2 Fluid Bed Gasification System

5.4.1.2.3 Plasma Arc Gasification System

5.4.2 Biological/~~Chemical~~ Conversion Processes

5.4.2.1 Anaerobic Digestion

5.4.2.2 Aerobic Digestion

~~5.3.2.1 Biosolids Injection Technology~~

~~5.3.2.2 Hydrocarb Gasification~~

5.4.3 Chemical/Other Conversion Processes

5.4.3.1 Acid Hydrolysis

5.4.3.2 Thermal Depolymerization (TDP)

~~5.3.3 Economic and Environmental Issues Relating to Transformation Technologies~~

5.5 TASK FORCE EFFORTS AND THE SOUTHERN CALIFORNIA CONVERSION TECHNOLOGY DEMONSTRATION PROJECT

5.6.4 ALTERNATIVE METHODS FOR EXTENDING THE LIFE OF EXISTING CLASS III LANDFILLS

5.6.4.1 Use of Alternative Daily Cover Materials

5.6.4.2 Biostabilization/Leachate Recirculation

5.6.4.3 Landfill Mining/Reclamation

5.6.4.4 Balefills

5.6.4.5 Shredfills

5.6.4.6 Waste Compaction

5.6.4.7 Exclusion of Specific Waste Streams ~~Inert Solid Waste~~ From Class III Landfills

5.6.4.8 Bioreactor Landfills ~~Exclusion of Biosolids from Class III Landfills~~

5.6.9 Waste Autoclaves

5.7 ECONOMIC AND ENVIRONMENTAL ISSUES

5.8 TABLES AND FIGURES

Figure 5-1 Commerce Refuse-to-Energy Facility Schematic Process Diagram

Figure 5-2 SERRF Refuse-to-Energy Facility Schematic Process Diagram

Figure 5-3 Typical Conversion Technology Process Diagram

~~Table 5-1—Environmental Comparisons of Developing Technologies~~
~~Table 5-2a—Summary of Statistics for Developing Technologies (per ton quantities relate to raw MSW, Metric units)~~
~~Table 5-2b—Summary of Statistics for Developing Technologies (per ton quantities relate to raw MSW, English units)~~
~~Table 5-3—Bailing Analysis Procedure~~
~~Figure 5-1—Commerce Refuse-to-Energy Facility Schematic Process Diagram~~
~~Figure 5-2—SEMASS Schematic Process Diagram~~
~~Figure 5-3—Schematic Diagram of Batchfed Vertical Fixed Bed Gasifier~~
~~Figure 5-4—Robbins Flow Diagram~~
~~Figure 5-5—Biomass Gasification/Battelle High Throughput Gasification Systems Process Diagram~~
~~Figure 5-6—Proler SynGas Schematic Process Diagram~~
~~Figure 5-7—Thermoselect Schematic Process Diagram~~
~~Figure 5-8—Biosolids Injection Technology~~
~~Figure 5-9—Hydrocarb Process Block Diagram~~

Proposed Table of Contents

CHAPTER 5 – ALTERNATIVE TECHNOLOGIES

5.2 DEFINITION OF TERMS

- 5.2.1 Combustion
- 5.2.2 Conversion Technologies
- 5.2.3 Incineration
- 5.2.4 Transformation
- 5.2.5 Waste-to-Energy

5.2 INTRODUCTION AND PURPOSE

- 5.2.1 Introduction
- 5.2.2 Purpose

5.3 COMBUSTION FACILITIES

5.3.2 Incineration

- 5.3.2.1 Fluidized Bed Combustion Systems
- 5.3.2.2 Mass-Fired Combustion Systems
 - 5.3.2.2.1 Commerce Refuse-to-Energy Facility
 - 5.3.2.2.2 Southeast Resource Recovery Facility
- 5.3.2.3 RDF-Fired Combustion Systems
- 5.3.2.4 Rotary Cascading Bed Combustion Systems

5.3.2 Biomass Conversion (Combustion) Facilities

5.4 CONVERSION TECHNOLOGIES

5.4.1 Thermal Conversion Processes

- 5.4.1.1 Pyrolysis Systems
- 5.4.1.2 Gasification Systems
 - 5.4.1.2.1 Fixed Bed Gasification System
 - 5.4.1.2.2 Fluid Bed Gasification System
 - 5.4.1.2.3 Plasma Arc Gasification System

5.4.2 Biological Conversion Processes

5.4.2.1 Anaerobic Digestion

5.4.2.2 Aerobic Digestion

5.4.3 Chemical/Other Conversion Processes

5.4.3.1 Acid Hydrolysis

5.4.3.2 Thermal Depolymerization (TDP)

5.5 TASK FORCE EFFORTS AND THE SOUTHERN CALIFORNIA CONVERSION TECHNOLOGY DEMONSTRATION PROJECT

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5.6.5 Shredfills

5.6.6 Waste Compaction

5.6.7 Exclusion of Specific Waste Streams From Class III Landfills

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Figure 5-1 Commerce Refuse-to-Energy Facility Schematic Process
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