

CalRecycle Anaerobic Digestion Initiative and Composting Regulations Review

Zone Works: Let's Get Technical
Capitol Plaza Holiday Inn, Sacramento
December 1, 2011

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CalRecycle

Anaerobic Digestion (AD)

AD is a promising technology for managing organic material

What are the environmental impacts?

AD Initiative and Program EIR

Identify activities to be carried out by CalRecycle that support the development of AD in California

Assist in meeting CalRecycle Strategic Directive 6.1:
- Reduce the amount of organics in the waste stream by 50% by 2020

Provide program level impact analysis of AD facilities as a starting point for local jurisdictions in preparing CEQA compliance

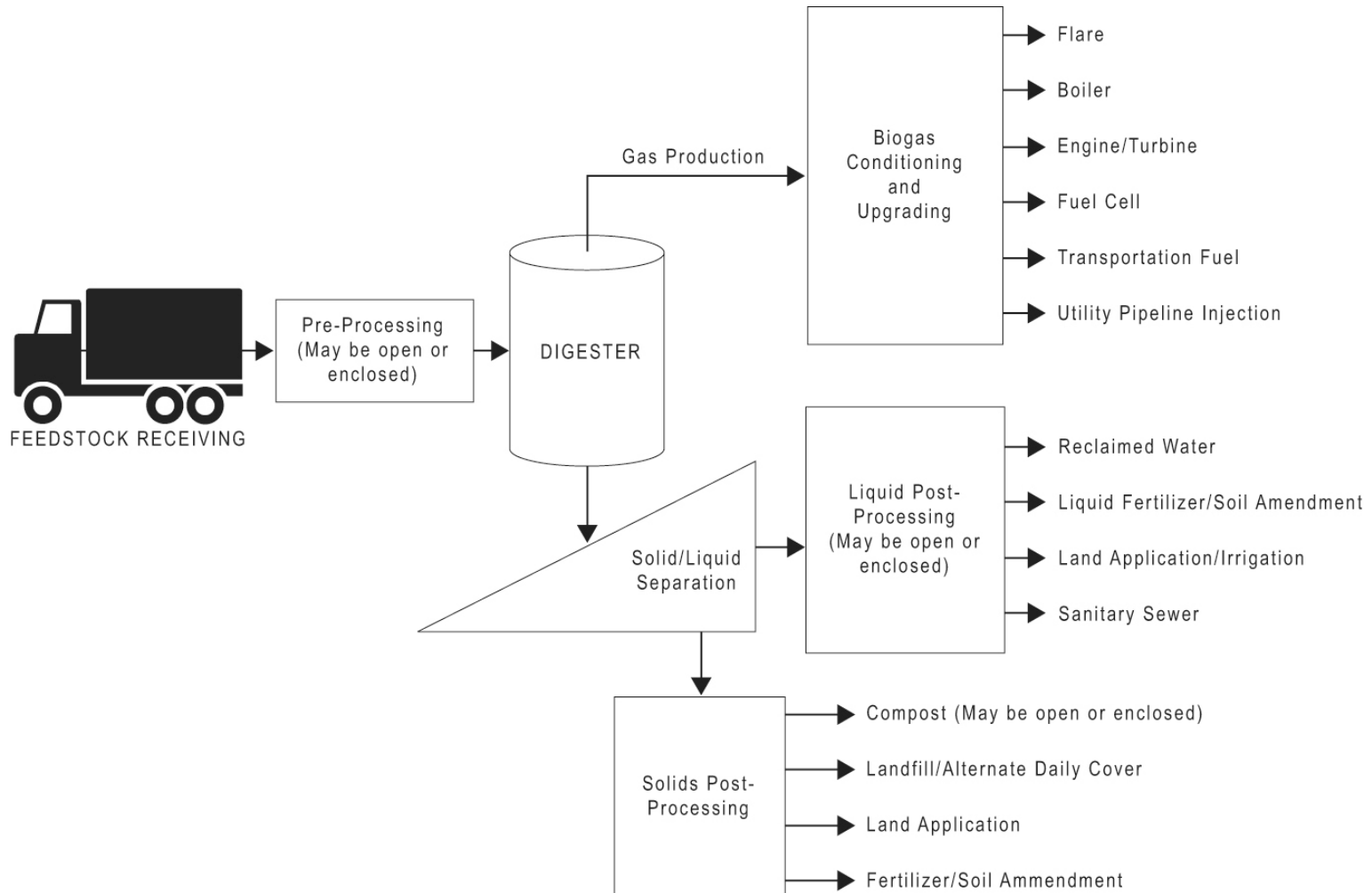
CalRecycle AD Initiative

Foster development of AD facilities in CA

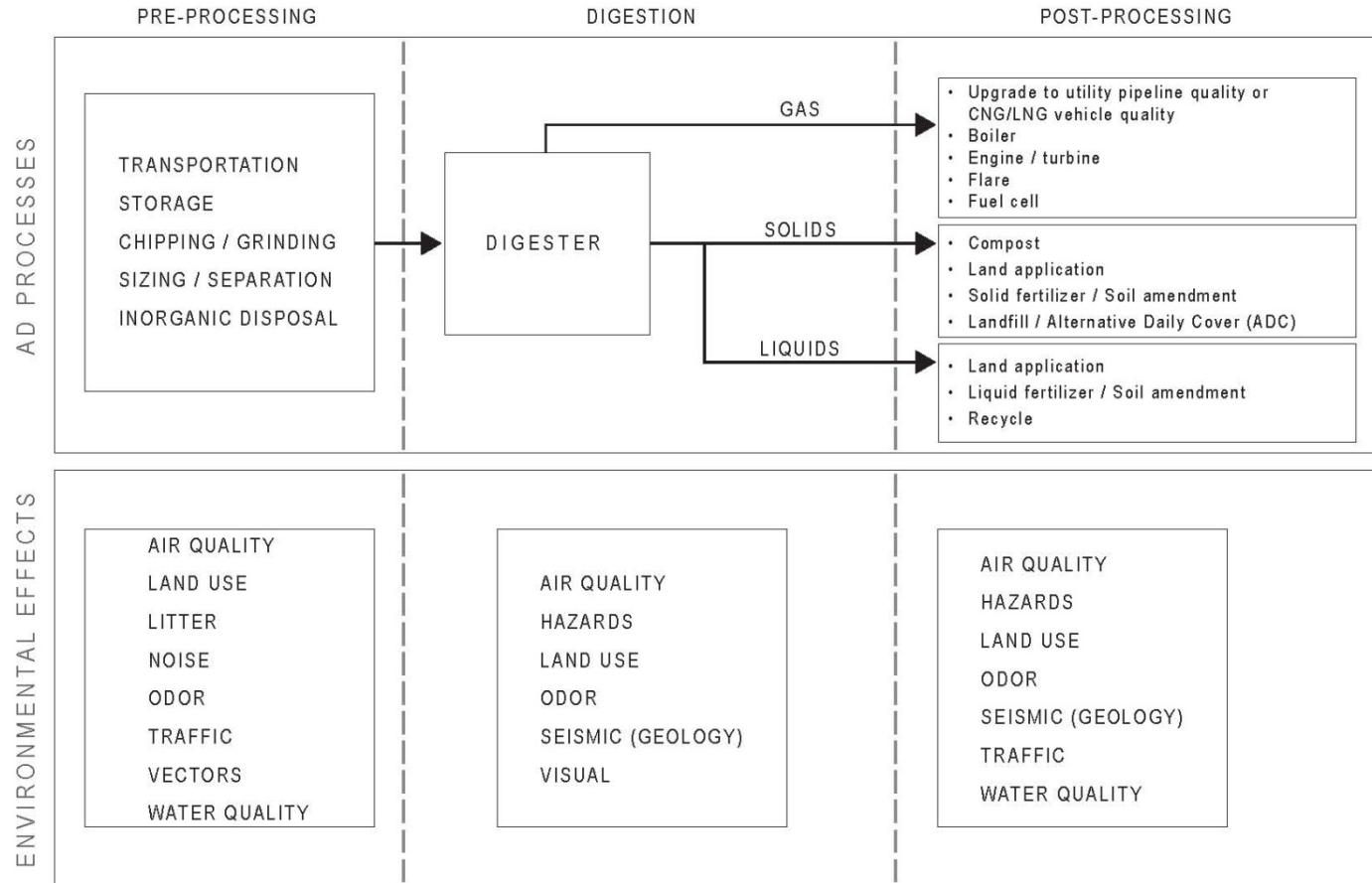
It is the policy of CalRecycle to encourage the development of AD facilities as an alternative to the landfill disposal of organic solid waste.

CalRecycle shall, not later than January 1, 2012, establish programs for implementation

AD Process Flow



AD Environmental Effects



AD Program EIR - Summary

All potential environmental impacts at a program level could be mitigated to a less-than-significant level with implementation of mitigation measures

AD Program EIR & AD Initiative Available on CalRecycle Website

The screenshot shows a Windows Internet Explorer browser window displaying the CalRecycle website. The address bar shows the URL: <http://www.calrecycle.ca.gov/SWFacilities/Compostables/AnaerobicDig/default.htm>. The browser's search bar is set to "CalRecycle Search". The website's header features the CalRecycle logo and navigation links: Home, Reduce Waste, Recycle, Buy Recycled, Beverage Containers, Enforcement, Local Partners, and About Us. A search bar is located in the top right corner. The main content area is titled "Compostable Materials" and "Anaerobic Digestion". It includes a sidebar with a list of links: Compostable Materials Home, Index, Permitting, Enforcement, Statutes and Regulations, Operational Challenges, Responses to Challenges, Community Outreach, Resources, Organic Materials Management, LEA Central, and Solid Waste Facilities Home. The main text describes anaerobic digestion (AD) as a biological process for decomposing organic matter. It mentions that CalRecycle is encouraging the development of technologies that divert organic waste from landfills and comply with the Global Warming Solutions Act of 2006 (AB 32). A "Program News..." section highlights the availability of the "Final Program Environmental Impact Report (EIR) for Anaerobic Digestion Facilities". The "Current Initiatives" section discusses the development of a Program Environmental Impact Report and guidance documents. A list of links is provided at the bottom of the page, including the "Final Program EIR" (PDF, 8.3 MB), the "Guidance Document for CEQA Review of Municipal Organic Waste Anaerobic Digester Facilities in California" (PDF, 372 KB), and "Staff Recommendations" (PDF, 136 KB) on CEQA Findings.

Anaerobic Digestion - Windows Internet Explorer provided by CalRecycle

<http://www.calrecycle.ca.gov/SWFacilities/Compostables/AnaerobicDig/default.htm>

CalRecycle Search

Search

California CalRecycle

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Local Enforcement Agencies (LEA Central) Local Waste Diversion Coordinators (LGCentral) Grant & Loan Programs

Compostable Materials
Anaerobic Digestion

Anaerobic digestion (AD) is the biological decomposition of organic matter with little or no oxygen. The anaerobic digestion process occurs naturally in marshes and wetlands. There are a variety of controlled systems where anaerobic technology is currently utilized in the United States, including wastewater treatment facilities (also Public-Operated Treatment Works or POTWs), and dairy manure digesters. In other countries (primarily Europe), anaerobic technology is utilized in municipal solid waste digesters to produce energy and to reduce the volume of solid waste that must be landfilled.

CalRecycle is encouraging the development of technologies that divert organic waste from landfills and comply with the Global Warming Solutions Act of 2006 (AB 32). AB 32 calls for the reduction of greenhouse gases and the use of low carbon fuels, and solid waste landfills are a significant source of greenhouse gases due to decomposition of organic material in landfills into methane. Anaerobic digestion is being considered for many projects to divert organic materials from landfills and produce low carbon fuels.

Current Initiatives

As interest in using anaerobic digestion to manage organic waste at various types of facilities grows, permitting questions are raised. To assist in the siting and permitting of these facilities in California, CalRecycle has several initiatives underway, including development of a Program Environmental Impact Report and guidance documents.

Program News...

Now Available: Final Program Environmental Impact Report (EIR) for Anaerobic Digestion Facilities

Program Environmental Impact Report (EIR) for Anaerobic Digestion Facilities: This Program EIR assesses the environmental effects that may result from the development of anaerobic digestion facilities in California. The results of the Program EIR will inform future policy considerations related to anaerobic digestion facilities and provide background information on technologies, potential impacts, and mitigation measures. If you require assistance in obtaining access to these documents, call the Public Affairs Office at (916) 341-6300 or Ken Decio at (916) 341-6313.

Final Program EIR (PDF, 8.3 MB). The Final Program EIR was certified on June 22, 2011 after a June 21 public meeting to provide an update and overview of the EIR. Documents related to certification of the Final Program EIR include:

Guidance Document for CEQA Review of Municipal Organic Waste Anaerobic Digester Facilities in California (PDF, 372 KB) (10/11/2011)

Staff Recommendations (PDF, 136 KB) on CEQA Findings

<http://www.calrecycle.ca.gov/LGCentral/>

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How Does Anaerobic Digestion Fit into Statutes and the CalRecycle Regulatory Structure?



Statutes

AD Is Regulated Like Composting

PRC 40116. “Compost” means the product resulting from the controlled biological decomposition of organic wastes that are source separated from the municipal solid waste stream, or which are separated at a centralized facility.

**How Conversion Technologies Fit Current Board
Regulatory Structure**

www.calrecycle.ca.gov/Publications

CalRecycle Regulations

(Title 14, CCR)

If feedstock is compostable material, the facility is regulated as a compostable material handling facility.

If feedstock is not compostable material, the activity is regulated as a transfer and processing facility.

Tier Placement – Focus on Facilities

Type of Feedstock

Quantity

Location

Compostable Materials Handling Tiers

Excluded

EA Notification

Full Permit

Transfer/Processing Operations & Facilities Tiers

Excluded

EA Notification

Registration

Full Permit

How Anaerobic Digestion Fits Current Board Regulatory Structure

www.calrecycle.ca.gov/Publications

Strategic Directive 8.3

Regulatory Review

Review & analysis of regulations in light of current science, market issues, and applicable technologies.

- Alternative Daily Cover
- Food Waste Composting
- Compostable Material Storage Volume Limitations
- Agriculture Land Application of Compostable Material
- Three-Part Test/Green Material Contamination

Composting Regulations Review Issues

Subcategories for food waste

Land application: disposal or beneficial use

On-site storage and 12,500 cubic yard limit

Odor complaints: beyond zero tolerance

Regulatory coordination of POTWs accepting food waste & FOG

Green waste contamination

Anaerobic Digestion facility permitting

Composting Regulations Review Issues

Regulatory coordination of meat, fish, and poultry waste

Maximum metal concentrations consistency with federal regulations

Clarify “processing” in agricultural material definition

Small-scale composting exclusions

Clarify “permitted maximum tonnage”

Vermiculture

EA Notification inspection frequency language

Stakeholder Input

October 18, 2011 - Informal Workshop at CalEPA

November 16, 2011 - Informal Workshop at Inland Empire
Utilities Agency in Chino

December 13, 2011 – Informal Workshop at CalRecycle
Public Monthly Meeting

December 21, 2011 – Informal Workshop at CalEPA in
Conference Room 550 from 9:00 AM - 12:00 PM

Information on the Rulemaking Process

Compostable Materials, Transfer/Processing Rulemaking

<http://www.calrecycle.ca.gov/Laws/Rulemaking/Compost/default.htm>

CalRecycle: Compostable Materials, Transfer/Processing Rulemaking Listserv

<http://www.calrecycle.ca.gov/Listservs/>

Send Written Comments to:

compost.transfer.regs@calrecycle.ca.gov

Questions?

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