

Conversion Technology

Statewide Commission on Recycling Markets and
Curbside Recycling

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Conversion Technology (CT) Overview:

1. Statutory context
2. Permitting and Siting
3. Counting for Mandates and Goals

Caveats:

- Current requirements
- CalRecycle
- Neutral
- High-level concepts

Definitions and Context

PRC 40191 defines "solid waste":

- Includes "All putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes..."
- Not "...Hazardous waste ... Radioactive waste ... Medical waste ..."

PRC 40192 defines “solid waste disposal,” “disposal,” or “dispose”:

- Means "...the final deposition of solid wastes onto land, **into the atmosphere**, or into the waters of the state."
- Includes "... the management of solid waste through landfill disposal, **transformation**, or **EMSW conversion**, at a permitted solid waste facility"

PRC 40201 defines “Transformation”:

- Means "... incineration, **pyrolysis, distillation, or biological conversion** other than composting..."
- Not “Transformation” composting, **gasification, EMSW conversion, or biomass conversion.**

PRC 40117 defines “Gasification”:

- Means "... a noncombustion thermal process to convert solid waste to a clean burning fuel..."
- That "... does not use air or oxygen ... produces no discharges of air contaminants or emissions ... produces no discharges to surface or groundwaters ... produces no hazardous waste."
- And "To the maximum extent feasible ... removes all recyclable materials and marketable green waste compostable materials ... prior to the conversion process ..."
- And "any local agency sending solid waste ... has reduced, recycled, or composted ... to the maximum extent feasible, and ... has diverted at least 30 percent...."

PRC 40131.2 defines “Engineered municipal solid waste conversion” or “EMSW conversion”:

- Means "... the conversion of solid waste through a process that ...
 - ... is beneficial and effective ... replaces or supplements the use of fossil fuels.
 - ... waste to be converted, the resulting ash, and any other products ... not ... hazardous waste
 - ... is mechanically processed at a transfer or processing station to reduce the fraction of chlorinated plastics and materials."
- If not "... the facility shall be considered to be a transformation facility."

PRC 40106 defines “Biomass conversion”:

- Means "the production of heat, fuels, or electricity by the controlled combustion of, or the use of **other noncombustion thermal conversion technologies** on...
 - (1) Agricultural crop residues.
 - (2) Bark, lawn, yard, and garden clippings.
 - (3) Leaves, silvicultural residue, and tree and brush pruning.
 - (4) Wood, wood chips, and wood waste.
 - (5) Nonrecyclable pulp or nonrecyclable paper materials."

Permitting Considerations

PRC 40194 defines “Solid waste facility”:

- Includes "...a solid waste transfer or processing station, a composting facility, a **gasification facility**, a **transformation facility**, an EMSW conversion facility, and a disposal facility...."

PRC 40200 (b) excludes certain types of facilities:

“Transfer or processing station” or “station” does not include ...

- (2) A facility, whose principal function is to receive, store, convert, or otherwise process wastes that have **already been separated for reuse and are not intended for disposal ...**

14 CCR 17402.5 defines a "Recycling Center" and embodies the three-part test:

A "Recycling Center" ...

- (1) ... only receive material that has been separated for reuse prior to receipt.
- (2) The residual amount of solid waste in the separated for reuse material shall be less than 10% of the amount of separated for reuse material received by weight
- (3) The amount of putrescible wastes in the separated for reuse material shall be less than 1%

There is no statutory mention, definition, or direction related to "chemical recycling":

Chemical recycling variations:

- Purification
- Decomposition
- Conversion

Apply the three-part test

Siting Considerations

PRC 50001 Siting requirements for solid waste facilities:

- (a) ... shall not establish or expand a solid waste facility ... unless the solid waste facility meets one of the following criteria:
 - (1) ... is a disposal facility, a transformation facility, or an EMSW conversion facility, the location of which is **identified in the countywide siting element....**
 - (2) ... is a facility that is designed to recover for reuse or recycling at least 5 percent of the total volume of material received by the facility, and that is **identified in the nondisposal facility element**

PRC 41721.5. Siting element approval:

Any amendments to the countywide siting element shall be **approved by the county and by a majority of the cities** within the county which contain **a majority of the population** of the incorporated area of the county ...

PRC 41730. Nondisposal facility element approval:

... each city shall prepare, **adopt**, and transmit to the county in which the city is located a nondisposal facility element

PRC 41735. NDFE Environmental Review:

... the adoption or amendment of a nondisposal facility element shall not be subject to environmental review.

Counting Considerations

PRC 41780. Jurisdiction mandate:

... shall divert 50 percent of all solid waste on and after January 1, 2000, through source reduction, recycling, and composting

PRC 41780.05 Jurisdiction measurement:

... the department shall determine each jurisdiction's compliance ... by comparing ... change in its per capita disposal rate

PRC 41821.5 Recycling & Disposal Reporting System:

Disposal facility operators shall submit information on the disposal tonnages by jurisdiction or region of origin
....

14 CCR 18815.6 Reporting Requirements for Disposal Facilities.

(a) All permitted disposal facilities shall report each quarter to the Department

PRC 41780.01. The 75% statewide recycling goal:

(a) The Legislature hereby declares that it is the policy goal of the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter.

Questions?