

ARIZONA STATE SENATE

RESEARCH STAFF



TO: MEMBERS OF THE SENATE
COMMERCE COMMITTEE

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SUBJECT: Strike everything amendment to S.B. 1156, relating to solid waste; exemption; advanced recycling

Purpose

Provides exemptions from the statutory definition of *solid waste* for specified materials processed through advanced recycling and includes new technology grants and contracts in permissive uses of Recycling Fund monies.

Background

Solid waste is statutorily defined as any garbage, trash, rubbish, waste tire, refuse, sludge from a waste treatment plant, water supply treatment plant or pollution control facility or other discarded material, including solid, liquid, semisolid or contained gaseous material. Statute provides exemptions from the statutory requirements and prohibitions that apply to *solid waste* for various forms of substances, materials and discharges ([A.R.S. § 49-701.01](#)).

Statute directs the Arizona Department of Environmental Quality (ADEQ) to implement an Arizona Recycling Program for research, demonstration projects and investigations pertaining to municipal and county solid waste management systems ([A.R.S. § 49-832](#)). The Recycling Fund, administered by the Director of ADEQ and overseen by the Director-appointed Recycling Fund Advisory Committee, consists of monies appropriated by the Legislature, gifts, grants, donations and, subject to legislative appropriation, monies derived from Landfill Disposal Fees. Monies from the Recycling Fund may be used for the following purposes: 1) to provide grants to or contracts with political subdivisions, nonprofit organizations or private enterprise for research, demonstration projects, market development and source reduction studies and the implementation of Arizona Recycling Program recommendations and reports; 2) public programs on litter control, recycling and source reduction; 3) the collection of Landfill Disposal Fees and administration of the Recycling Fund; 4) the Arizona Recycling Program; 5) the Arizona Commerce Authority's Recycled Market Development Program; and 6) ADEQ's Solid Waste Control Program ([A.R.S. § 49-837](#)).

There is no anticipated fiscal impact to the state General Fund associated with this legislation.

Provisions

Solid Waste Exemptions

1. Exempts, from the definition of *solid waste*, recovered feedstocks where such materials are processed through advanced recycling.

2. Requires an owner or operator of an advanced recycling facility that is exempt from the statutory definition of *solid waste* to operate the facility in a manner that:
 - a) controls wind dispersion and other surface dispersion of recovered feedstock from the facility so that the recovered feedstock does not create a public nuisance or pose an imminent and substantial endangerment to public health or the environment;
 - b) does not discharge hazardous substances to surface water, groundwater or subsurface soil in a manner that creates a public nuisance or poses an imminent and substantial endangerment to public health or the environment;
 - c) the storage of recoverable feedstocks or post-use polymers does not cause a nuisance, vector breeding or fire hazards; and
 - d) converts recoverable feedstocks or post-use polymer, prior to the end of a storage period of less than 90 days, using an advanced recycling process.
3. Requires an operator of an advanced recycling facility to collect visible recovered feedstock dispersed beyond the boundaries of the facility on a regular basis.
4. Allows the state or local government, by a contractual agreement, to extend, from 90 days to 120 days, the maximum storage period for advanced recycling operations located on government property.

Recycling Fund Permissive Uses

5. Includes grants to or contracts with political subdivisions, nonprofit organizations or private enterprises for new technologies in permissive uses of Recycling Fund monies.

Definitions

6. Defines *advanced recycling* as a manufacturing process for the conversion of post-use polymers and recovered feedstocks into basic hydrocarbon raw materials, feedstocks, chemicals, monomers, oligomers, plastics, plastics and chemical feedstocks, basic and unfinished chemicals, crude oil, naphtha, liquid transportation fuels and coatings and other products such as waxes and lubricants through processes that include pyrolysis, gasification, depolymerization, catalytic cracking, reforming, hydrogenation, solvolysis and other similar technologies and specifies that *advanced recycling* does not include solid waste management or processing incineration or treatment.
7. Defines *advanced recycling facility* as a facility that receives, stores and converts post-use polymers and recovered feedstocks using advanced recycling, including a manufacturing facility that is subject to applicable provisions of law and rules governing air quality, water quality and waste and land use and specifies that *advanced recycling facility* does not include a solid waste facility, processing facility, treatment facility, materials recovery facility, recycling facility or incinerator.
8. Defines *depolymerization* as a manufacturing process through which post-use polymers are broken into smaller molecules such as monomers and oligomers or raw, intermediate or final products, plastics and chemical feedstocks, basic and unfinished chemicals, crude oil, naphtha, liquid transportation fuels, waxes, lubricants, coatings and other basic hydrocarbons.

9. Defines *gasification* as a manufacturing process through which recovered feedstocks are heated and converted into a fuel and gas mixture in an oxygen-deficient atmosphere and the mixture is converted into valuable raw, intermediate and final products, including plastic monomers, chemicals, waxes, lubricants, chemical feedstocks, crude oil, diesel, gasoline, diesel and gasoline blendstocks, home heating oil and other fuels, including ethanol and transportation fuel, that are returned to economic utility in the form of raw materials, products or fuels.
10. Defines *post-use polymer* as a plastic that:
 - a) is derived from any industrial, commercial, agricultural or domestic activities;
 - b) is not mixed with solid waste or hazardous waste on site or during processing at the advanced recycling facility;
 - c) is used or intended to be used as a feedstock for the manufacturing of crude oil, fuels, feedstocks, blendstocks, raw materials or other intermediate products or final products using advanced recycling;
 - d) has been sorted from solid waste and other regulated waste but may contain residual amounts of solid waste such as organic material and incidental contaminants or impurities such as paper labels and metal rings; and
 - e) is processed at an advanced recycling facility or held at such facility before processing.
11. Specifies that the statutory definition of *post-use polymer* does not include solid waste or municipal wastes.
12. Defines *pyrolysis* as a manufacturing process through which post-use polymers are heated in the absence of oxygen until melted, are thermally decomposed and are then cooled, condensed and converted into valuable raw, intermediate and final products, including plastic monomers, chemicals, waxes, lubricants, chemical feedstocks, crude oil, diesel, gasoline, diesel and gasoline blendstocks, home heating oil and other fuels, including ethanol and transportation fuel, that are returned to economic utility in the form of raw materials, products or fuels.
13. Defines *recovered feedstocks* as either of the following that has been processed so that it may be used as feedstock in an advanced recycling facility:
 - a) post-use polymers; and
 - b) materials for which the U.S. Environmental Protection Agency has made a nonwaste determination pursuant to 40 Code of Federal Regulations Section 241.3(c) or has otherwise determined are feedstocks and not solid waste.
14. Specifies that *recovered feedstocks* does not include unprocessed municipal solid waste or materials that are mixed with solid waste or hazardous waste on site or during processing at an advanced recycling facility and is not waste.
15. Includes, in the statutory definition of *solid waste facility*, an advanced recycling facility that converts recovered feedstocks to manufacture raw materials and intermediate and final products.
16. Defines *solvolysis* as a manufacturing process through which post-use polymers are purified with the aid of solvents, allowing additives and contaminants to be removed and producing polymers capable of being recycled or reused without first being reverted to a monomer, including hydrolysis, aminolysis, ammonolysis, methanolysis and glycolysis.

Miscellaneous

17. Makes technical and conforming changes.
18. Becomes effective on the general effective date.