

# **WEST VIRGINIA LEGISLATURE**

**2022 REGULAR SESSION**

**ENROLLED**

**Committee Substitute**

**for**

**House Bill 4084**

BY DELEGATES ZATEZALO, ANDERSON, J. KELLY,

REYNOLDS, HOWELL, MILLER, FORSHT, KEATON, MANDT,

EVANS AND YOUNG

[Passed March 3, 2022; in effect ninety days from passage]



1 AN ACT to amend and reenact §22-15-2 of the Code of West Virginia, 1931, as amended, relating  
2 to advanced recycling of solid waste under the Solid Waste Management Act; adding  
3 definitions of advanced recycling, advanced recycling facility, catalytic cracking,  
4 depolymerization, gasification, hydrogenation, post-use polymer, pyrolysis, recovered  
5 feedstock, and solvolysis; amending the definition of solid waste to except out post-use  
6 polymers and recovered feedstocks which are converted or held for conversion at an  
7 advanced recycling facility; amending the definition of solid waste facility to except out  
8 advanced recycling facilities; and facilitating the conversion and use of plastics and other  
9 recovered materials through advanced recycling processes.

*Be it enacted by the Legislature of West Virginia:*

**ARTICLE 15. SOLID WASTE MANAGEMENT ACT.**

**§22-15-2. Definitions.**

1 Unless the context clearly requires a different meaning, as used in this article the terms:

2 “Advanced recycling” means a manufacturing process for the conversion of post-use  
3 polymers and recovered feedstocks into basic hydrocarbon raw materials, feedstocks, chemicals,  
4 and other products like waxes and lubricants through processes that include pyrolysis,  
5 gasification, depolymerization, catalytic cracking, hydrogenation, solvolysis, and other similar  
6 technologies. The recycled products produced at advanced recycling facilities include, but are not  
7 limited to, monomers, oligomers, plastics, plastics and chemical feedstocks, basic and unfinished  
8 chemicals, waxes, lubricants, coatings, and other basic hydrocarbons. Advanced recycling shall  
9 not be considered solid waste management or solid waste disposal.

10 “Advanced recycling facility” means a facility that receives, stores, and converts post-use  
11 polymers and recovered feedstocks it receives using advanced recycling. An advanced recycling  
12 facility is a manufacturing facility subject to applicable department manufacturing regulations for

13 air, water, and land use. Advanced recycling facilities shall not be considered solid waste  
14 facilities.

15 “Agronomic rate” means the whole sewage sludge application rate, by dry weight,  
16 designed:

17 (1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover  
18 crop, or vegetation on the land; and

19 (2) To minimize the amount of nitrogen in the sewage sludge that passes below the root  
20 zone of the crop or vegetation grown on the land to the groundwater.

21 “Applicant” means the person applying for a commercial solid waste facility permit or  
22 similar renewal permit and any person related to such person by virtue of common ownership,  
23 common management, or family relationships as the director may specify, including the following:  
24 Spouses, parents, children, and siblings.

25 “Approved solid waste facility” means a solid waste facility or practice which has a valid  
26 permit under this article.

27 “Back hauling” means the practice of using the same container to transport solid waste  
28 and to transport any substance or material used as food by humans, animals raised for human  
29 consumption, or reusable item which may be refilled with any substance or material used as food  
30 by humans.

31 “Bulking agent” means any material mixed and composted with sewage sludge.

32 “Catalytic cracking” is a manufacturing process through which post-use polymers are  
33 heated and melted in the absence of oxygen and then processed in the presence of a catalyst to  
34 produce valuable raw materials and intermediate and final products, including, but not limited to,  
35 plastic monomers, chemicals, waxes, lubricants, plastic and chemical feedstocks, and other basic  
36 hydrocarbons.

37 “Class A facility” means a commercial solid waste facility which handles an aggregate of  
38 between 10,000 and 30,000 tons of solid waste per month. Class A facility includes two or more

39 Class B solid waste landfills owned or operated by the same person in the same county, if the  
40 aggregate tonnage of solid waste handled per month by such landfills exceeds 9,999 tons of solid  
41 waste per month.

42 “Commercial recycler” means any person, corporation, or business entity whose operation  
43 involves the mechanical separation of materials for the purpose of reselling or recycling at least  
44 70 percent by weight of the materials coming into the commercial recycling facility.

45 “Commercial solid waste facility” means any solid waste facility which accepts solid waste  
46 generated by sources other than the owner or operator of the facility and does not include an  
47 approved solid waste facility owned and operated by a person for the sole purpose of the disposal,  
48 processing, or composting of solid wastes created by that person or such person and other  
49 persons on a cost-sharing or nonprofit basis and does not include land upon which reused or  
50 recycled materials are legitimately applied for structural fill, road base, mine reclamation, and  
51 similar applications.

52 “Compost” means a humus-like material resulting from aerobic, microbial, or thermophilic  
53 decomposition of organic materials.

54 “Composting” means the aerobic, microbial, or thermophilic decomposition of natural  
55 constituents of solid waste to produce a stable, humus-like material.

56 “Commercial composting facility” means any solid waste facility processing solid waste by  
57 composting, including sludge composting, organic waste or yard waste composting, but does not  
58 include a composting facility owned and operated by a person for the sole purpose of composting  
59 waste created by that person or such person and other persons on a cost-sharing or nonprofit  
60 basis and shall not include land upon which finished or matured compost is applied for use as a  
61 soil amendment or conditioner.

62 “Cured compost” or “finished compost” means compost which has a very low microbial or  
63 decomposition rate which will not reheat or cause odors when put into storage and that has been

64 put through a separate aerated curing cycle stage of 30 to 60 days after an initial composting  
65 cycle or compost which meets all regulatory requirements after the initial composting cycle.

66 “Department” means the Department of Environmental Protection.

67 “Depolymerization” means a manufacturing process where post-use polymers are broken  
68 into smaller molecules such as monomers and oligomers or raw, intermediate, or final products,  
69 plastics and chemical feedstocks, basic and unfinished chemicals, waxes, lubricants, coatings,  
70 and other basic hydrocarbons.

71 “Energy recovery incinerator” means any solid waste facility at which solid wastes are  
72 incinerated with the intention of using the resulting energy for the generation of steam, electricity,  
73 or any other use not specified herein.

74 “Gasification” means a manufacturing process through which recovered feedstocks are  
75 heated and converted into a fuel and gas mixture in an oxygen-deficient atmosphere and the  
76 mixture is converted into valuable raw materials and intermediate and final products, including,  
77 but not limited to, plastic monomers, chemicals, waxes, lubricants, plastic and chemical  
78 feedstocks, and other basic hydrocarbons that are returned to economic utility in the form of raw  
79 materials and products.

80 “Hydrogenation” is a manufacturing process through which hydrogen is used to remove  
81 impurities from post-use polymers or recovered feedstock to enable further processing into  
82 valuable raw materials and intermediate and final products, including, but not limited to, plastic  
83 monomers, chemicals, waxes, lubricants, plastic and chemical feedstocks, and other basic  
84 hydrocarbons.

85 “Incineration technologies” means any technology that uses controlled flame combustion  
86 to thermally break down solid waste, including refuse-derived fuel, to an ash residue that contains  
87 little or no combustible materials, regardless of whether the purpose is processing, disposal,  
88 electric or steam generation, or any other method by which solid waste is incinerated.

89           “Incinerator” means an enclosed device using controlled flame combustion to thermally  
90 break down solid waste, including refuse-derived fuel, to an ash residue that contains little or no  
91 combustible materials.

92           “Landfill” means any solid waste facility used for the disposal of solid waste on or in the  
93 land for the purpose of permanent disposal. Such facility is situated, for purposes of this article,  
94 in the county where the majority of the spatial area of such facility is located.

95           “Materials recovery facility” means any solid waste facility at which source-separated  
96 materials or materials recovered through a mixed waste processing facility are manually or  
97 mechanically shredded or separated for purposes of reuse and recycling, but does not include a  
98 composting facility.

99           “Mature compost” means compost which has been produced in an aerobic, microbial, or  
100 thermophilic manner and does not exhibit phytotoxic effects.

101           “Mixed solid waste” means solid waste from which materials sought to be reused or  
102 recycled have not been source-separated from general solid waste.

103           “Mixed waste processing facility” means any solid waste facility at which materials are  
104 recovered from mixed solid waste through manual or mechanical means for purposes of reuse,  
105 recycling, or composting.

106           “Municipal solid waste incineration” means the burning of any solid waste collected by any  
107 municipal or residential solid waste disposal company.

108           “Open dump” means any solid waste disposal which does not have a permit under this  
109 article, or is in violation of state law, or where solid waste is disposed in a manner that does not  
110 protect the environment.

111           “Person” or “persons” means any industrial user, public or private corporation, institution,  
112 association, firm, or company organized or existing under the laws of this or any other state or  
113 country; State of West Virginia; governmental agency, including federal facilities; political  
114 subdivision; county commission; municipal corporation; industry; sanitary district; public service

115 district; drainage district; soil conservation district; watershed improvement district; partnership;  
116 trust; estate; person or individual; group of persons or individuals acting individually or as a group;  
117 or any legal entity whatever.

118 "Post-use polymer" means a plastic to which all the following apply:

119 (1) The plastic is derived from any industrial, commercial, agricultural, or domestic  
120 activities;

121 (2) It is not mixed with solid waste or hazardous waste onsite or during processing at the  
122 advanced recycling facility;

123 (3) The plastic's use or intended use is as a feedstock for the manufacturing of plastic and  
124 chemical feedstocks, other basic hydrocarbons, raw materials, or other intermediate products or  
125 final products using advanced recycling;

126 (4) The plastic has been sorted from solid waste and other regulated waste but may  
127 contain residual amounts of solid waste such as organic material and incidental contaminants or  
128 impurities (e.g., paper labels and metal rings); and,

129 (5) The plastic is processed at an advanced recycling facility or held at such facility prior  
130 to processing.

131 "Publicly owned treatment works" means any treatment works owned by the state or any  
132 political subdivision thereof, any municipality or any other public entity which processes raw  
133 domestic, industrial, or municipal sewage by any artificial or natural processes in order to remove  
134 or so alter constituents as to render the waste less offensive or dangerous to the public health,  
135 comfort, or property of any of the inhabitants of this state before the discharge of the plant effluent  
136 into any of the waters of this state, and which produces sewage sludge.

137 "Pyrolysis" means a manufacturing process through which post-use polymers are heated  
138 in the absence of oxygen until melted and thermally decomposed and are then cooled,  
139 condensed, and converted into valuable raw materials and intermediate and final products,  
140 including, but not limited to, plastic monomers, chemicals, waxes, lubricants, plastic and chemical

141 feedstocks, and other basic hydrocarbons, that are returned to economic utility in the form of raw  
142 materials or products.

143 “Recovered feedstock” means one or more of the following materials that has been  
144 processed so that it may be used as feedstock in an advanced recycling facility:

145 (1) Post-use polymers;

146 (2) Materials for which the United States Environmental Protection Agency has made a  
147 nonwaste determination pursuant to 40 C.F.R. 241.3(c), or has otherwise determined are  
148 feedstocks and not solid waste;

149 (3) Recovered feedstock does not include unprocessed municipal solid waste;

150 (4) Recovered feedstock is not mixed with solid waste or hazardous waste onsite or during  
151 processing at an advanced recycling facility.

152 “Recycling facility” means any solid waste facility for the purpose of recycling at which  
153 neither land disposal nor biological, chemical, or thermal transformation of solid waste occurs:  
154 *Provided*, That mixed waste recovery facilities, sludge processing facilities, and composting  
155 facilities are not considered recycling facilities nor considered to be reusing or recycling solid  
156 waste within the meaning of this article, §22-15A-1 *et seq.* and §22C-4-1 *et seq.* of this code.

157 “Sewage sludge” means solid, semisolid, or liquid residue generated during the treatment  
158 of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic  
159 septage, scum, or solids removed in primary, secondary, or advanced wastewater treatment  
160 processes and a material derived from sewage sludge. “Sewage sludge” does not include ash  
161 generated during the firing of sewage sludge in a sewage sludge incinerator.

162 “Sewage sludge processing facility” is a solid waste facility that processes sewage sludge  
163 for: (A) Land application; (B) incineration; or (C) disposal at an approved landfill. Such processes  
164 include, but are not limited to, composting, lime stabilization, thermophilic, microbial, and  
165 anaerobic digestion.

166           “Secretary” means the Secretary of the Department of Environmental Protection or such  
167 other person to whom the secretary has delegated authority or duties pursuant to §22-1-1 *et seq.*  
168 of this code.

169           “Sludge” means any solid, semisolid, residue, or precipitate, separated from or created by  
170 a municipal, commercial, or industrial waste treatment plant, water supply treatment plant, air  
171 pollution control facility, or any other such waste having similar origin.

172           “Solid waste” means any garbage, paper, litter, refuse, cans, bottles, waste processed for  
173 the express purpose of incineration; sludge from a waste treatment plant; water supply treatment  
174 plant or air pollution control facility; and other discarded materials, including offensive or unsightly  
175 matter, solid, liquid, semisolid, or contained liquid or gaseous material resulting from industrial,  
176 commercial, mining, or community activities but does not include solid or dissolved material in  
177 sewage or solid or dissolved materials in irrigation return flows or industrial discharges which are  
178 point sources and have permits under §22-5A-1 *et seq.* of this code, or source, special nuclear,  
179 or byproduct material as defined by the Atomic Energy Act of 1954, as amended, including any  
180 nuclear or byproduct material considered by federal standards to be below regulatory concern, or  
181 a hazardous waste either identified or listed under §22-5E-1 *et seq.* of this code or refuse, slurry,  
182 overburden, or other wastes or material resulting from coal-fired electric power or steam  
183 generation, the exploration, development, production, storage, and recovery of coal, oil, and gas,  
184 and other mineral resources placed or disposed of at a facility which is regulated under Chapter  
185 22, Chapter 22A, or Chapter 22B of this code, so long as placement or disposal is in conformance  
186 with a permit issued pursuant to such chapters, or post-use polymers and recovered feedstocks  
187 converted at an advanced recycling facility or held at such facility prior to conversion.

188           “Solid waste disposal” means the practice of disposing of solid waste including placing,  
189 depositing, dumping, throwing, or causing any solid waste to be placed, deposited, dumped, or  
190 thrown.

191           “Solid waste disposal shed” means the geographical area which the solid waste  
192 management board designates and files in the state register pursuant to §16-26-8 of this code.

193           “Solid waste facility” means any system, facility, land, contiguous land, improvements on  
194 the land, structures, or other appurtenances or methods used for processing, recycling, or  
195 disposing of solid waste, including landfills, transfer stations, materials recovery facilities, mixed  
196 waste processing facilities, sewage sludge processing facilities, commercial composting facilities,  
197 and other such facilities not herein specified, but not including land upon which sewage sludge is  
198 applied in accordance with §22-15-20 of this code . Such facility shall be deemed to be situated,  
199 for purposes of this article, in the county where the majority of the spatial area of such facility is  
200 located: *Provided*, That a salvage yard, licensed and regulated pursuant to the terms of §17-23-  
201 1 *et seq.* of this code, is not a solid waste facility and an advanced recycling facility is not a solid  
202 waste facility.

203           “Solid waste facility operator” means any person or persons possessing or exercising  
204 operational, managerial, or financial control over a commercial solid waste facility, whether or not  
205 such person holds a certificate of convenience and necessity or a permit for such facility.

206           “Solvolysis” means a manufacturing process through which post-use polymers are  
207 purified with the aid of solvents, while heated at low temperatures and/or pressurized to make  
208 useful products, allowing additives and contaminants to be separated. The products of solvolysis  
209 include monomers, intermediates, valuable chemicals, and raw materials. The process includes,  
210 but is not limited to, hydrolysis, aminolysis, ammonolysis, methanolysis, and glycolysis.

211           “Source-separated materials” means materials separated from general solid waste at the  
212 point of origin for the purpose of reuse and recycling but does not mean sewage sludge.



The Joint Committee on Enrolled Bills hereby certifies that the foregoing bill is correctly enrolled.

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*Chairman, House Committee*

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*Chairman, Senate Committee*

Originating in the House.

In effect ninety days from passage.

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*Clerk of the House of Delegates*

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*Clerk of the Senate*

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*Speaker of the House of Delegates*

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*President of the Senate*

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The within ..... this the.....  
day of ....., 2022.

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*Governor*