

**103 KAR 8:160. Valuation of municipal solid waste landfill facilities.**

RELATES TO: KRS 132.020, 132.200, 224.1-010

STATUTORY AUTHORITY: KRS 131.130, 132.202

NECESSITY, FUNCTION, AND CONFORMITY: KRS 132.202 requires the department to promulgate an administrative regulation to implement a valuation methodology for the taxation of property used as a landfill, also known as a municipal solid waste disposal facility. This administrative regulation establishes a uniform system of ad valorem valuation for a municipal solid waste disposal facility as defined in KRS 224.1-010(15).

Section 1. Definitions.

- (1) "Compaction ratio" means the ratio that expresses the relationship of the number of tons (2,000 pounds) of waste that will fill one (1) cubic yard of landfill capacity. For example, a compaction ratio of 0.60 means that sixty (60) percent of one (1) ton (1,200 pounds) of waste can be compacted into one cubic yard of landfill capacity.
- (2) "Cover materials" means soil or other suitable material that is spread and compacted on the top and side slopes of disposed waste in order to control disease vectors, gases, erosion, fires, and infiltration of precipitation or run-on; support vegetation; provide trafficability; or assure an aesthetic appearance.
- (3) "Department" means Department of Revenue, Finance and Administration Cabinet, Commonwealth of Kentucky.
- (4) "Discount rate" means a pre-tax percentage rate used to discount the annual royalty income over the projected remaining economic life of the landfill to a present value.
- (5) "Effective tipping fee" means the average net dollar amount collected per ton for depositing waste into the landfill being assessed not including surcharges, host fees, and related taxes.
- (6) "Landfill" means a municipal solid waste disposal facility as defined by KRS 224.1010(15) but does not include construction and demolition debris (CDD) landfills of less than one (1) acre.
- (7) "Landfill valuation method" means a discounted cash flow, also known as yield capitalization, which is a valuation methodology used to determine the fair cash value of a landfill's real property.
- (8) "Other landfill income" means the five (5) year average of income generated by a landfill from sources other than effective tipping fees, net of applicable expenses.
- (9) "Present value" means the sum of the discounted projected annual royalty income over the remaining life of the landfill. The present value formula is:

$$PV = \frac{CF_1}{(1 + Y)^1} + \frac{CF_2}{(1 + Y)^2} + \frac{CF_3}{(1 + Y)^3} + \frac{CF_4}{(1 + Y)^4} + \frac{CF_5}{(1 + Y)^5} + \dots + \frac{CF_n}{(1 + Y)^n}$$

PV = present value of landfill

CF = the annual projected royalty income

Y = the annual pre-tax discount rate

N = the number of annual periods in the projection

- (10) "Remaining permitted capacity" means the volume of permitted airspace remaining for the placement of waste materials.
- (11) "Reversionary value" means the potential future market value of a landfill after all post-closure regulatory requirements, including a required minimum post-closure monitoring period of at least thirty (30) years, have been fulfilled by the owner or operator.
- (12) "Royalty income" means that portion of effective tipping fees and other landfill income that would be paid pursuant to a presumed comparable market lease agreement by the landfill

operator to the real property owner in consideration for the right to use the real property for landfill purposes.

(13) "Royalty rate" means a percentage rental rate to real property applied to the sum of the annual effective tipping fee revenue and other landfill income that results in the estimated royalty income for each year of the estimated remaining economic life of the landfill.

(14) "Tax year" means a calendar tax year.

(15) "Ton" means 2,000 pounds.

(16) "Tons of waste" means the five (5) year average of annual tons of waste received by the landfill, as determined utilizing information submitted to the Division of Waste Management for the Kentucky Department for Environmental Protection on Form DEP 7046, as incorporated by reference in 401 KAR 47:110, Section 5(1)(h).

(17) "Waste" means waste as defined by KRS 224.1-010(31)(a).

## Section 2. Landfill valuation methodology formula.

(1) The department shall determine the fair cash value of a landfill's real property in compliance with the landfill valuation method established in this subsection.

(a) The department shall estimate the remaining permitted economic life of the landfill by dividing the estimated annual cubic yards of waste deposited into the landfill into the total remaining permitted capacity of the landfill.

1. The compaction ratio shall be calculated by taking the average of the five (5) most recent compaction ratios from the Solid Waste Landfill Annual Survey submitted to the Division of Waste Management for the Kentucky Department for Environmental Protection on Form DEP 8059, available at <http://dep.ky.gov/formslibrary/Documents/DEP8059.doc>. Form DEP 8059 is the form to be submitted by a municipal solid waste landfill permittee in conjunction with the annual survey report required by 401 KAR 47:190, Section 8. When calculating the average, consideration shall be given to factors that alter the five (5) year average as an appropriate estimate.

2. The remaining permitted capacity shall be as reported on the remaining airspace line item in the most recent Solid Waste Landfill Annual Survey submitted to the Division of Waste Management for the Kentucky Department for Environmental Protection on Form DEP 8059 for the landfill being assessed. The volume shall be adjusted for the capacity consumed from the date of the survey used to prepare the calculation, until the end of the tax year with no annual intake volume growth over the remaining forecasted permitted life of the landfill. Actual tons for the applicable dates shall be converted to permitted cubic yards using the compaction ratio and the result shall be subtracted from the remaining permitted capacity as presented in Form DEP 8059. If cover materials are used at the landfill, the total remaining permitted capacity shall be multiplied by .85 to account for a standard reduction of remaining permitted capacity for cover materials.

3. The estimated annual cubic yards of waste deposited into the landfill shall be equal to the average of the annual cubic yards of waste deposited into the landfill for the five (5) tax years prior to the current tax year. The landfill operator shall report to the department the annual cubic yards of waste deposited into the landfill for the five (5) tax years prior to the current tax year by April 30 of the current tax year. When calculating the average, consideration shall be given to factors that alter the five (5) year average as an appropriate estimate.

4. The remaining economic life of the landfill shall be calculated as follows: remaining permitted capacity (cubic yards) divided by the estimated annual cubic yards of waste deposited equals the remaining permitted economic life of the landfill.

5. The landfill operator shall provide the department with copies of the annual surveys and all quarterly reports filed by the landfill operator with the Division of Waste Management pursuant to 401 KAR 47:190 during the five (5) years on or before April 30 of the current tax year and a copy of its current operating permit.

(b) The effective tipping fee shall be calculated by dividing landfill historical tipping fee revenue (excluding surcharges, host fees, and related taxes) collected for the five (5) most recent tax years by landfill related historical tonnage for the five (5) most recent tax years as demonstrated by the records of the landfill operator.

1. The landfill operator shall provide the department with its calculation of the effective tipping fees for the five (5) tax years prior to the current tax year, together with its annual operating financial statements for each tax year, that shall include tipping fee revenue, expenses for surcharges, host fees and related taxes, and other landfill income.

2. The department shall review the effective tipping fees calculation submitted by the landfill operator and shall estimate the forecasted effective tipping fee for the current tax year. Increases in forecasted effective tipping fees shall be determined by an indexed factor not to exceed the annual Consumer Price Index (CPI), as defined by KRS 154.30-010(11), for the year prior to the current tax year.

3. In estimating the annual effective tipping fee, the department shall consider any facts or circumstances that exist that may have an impact on current or future effective tipping fees.

(c) The department shall estimate the other landfill income for the current tax year based upon the records of the landfill operator for the five (5) tax years prior to the current tax year.

1. The landfill operator shall provide the department with its calculation of other landfill income for the five (5) tax years prior to the current tax year, together with its annual operating financial statements provided pursuant to this section.

2. The department shall review the other landfill income submitted by the landfill operator and included in the operating financial statements submitted and shall estimate other landfill income for the current tax year and any annual increase in the other landfill income.

3. In estimating other landfill income, the department shall consider all relevant facts or circumstances that exist that may have an impact on current or future other landfill income.

(d) If the landfill does not have five (5) years of operating data, due to its date of first operation being less than five (5) years prior to the current tax year, the department shall determine the landfill's compaction ratio, consumed landfill capacity, estimated annual cubic yards of waste deposited, effective tipping fees, and other landfill income as a rolling average of the number of years for which operating data exists for the landfill.

(e) The department shall estimate an annual royalty income for each year of the landfill's remaining economic life by the following calculation:  $((\text{effective tipping fee} \times \text{tons of waste}) + \text{other landfill income}) \times \text{royalty rate} - \text{general administrative expenses} = \text{royalty income}$ .

(f) The department shall determine the present value of the royalty income of the landfill for all remaining years of its remaining permitted economic life by applying the discount rate to each year's royalty income as determined pursuant to paragraph (e) of this subsection.

(g) The discount rate shall be twenty (20) percent unless the landfill operator or the department establishes a higher or lower discount rate based upon applicable market factors and the applicable facts and circumstances attributable to the landfill.

(h) The present value of the royalty income for all remaining years of the landfill's remaining economic life shall be the landfill real property valuation to be used as a tax basis.

(i) The royalty rate shall be fifteen (15) percent unless the landfill operator or the department establishes a higher or lower royalty rate based upon applicable market factors and the applicable facts and circumstances attributable to the landfill.

(j) The department shall estimate a reversionary value, if any, as of the date that all post closure regulatory monitoring requirements of federal, state, or local governments are completed. The reversionary value shall be discounted to its present worth as of January 1

of the current tax year and the resulting value shall be added to the sum of all year's present values as calculated pursuant to paragraph (f) of this subsection.

(2) The fair cash value of any other real property, including improvements, not already included in the valuation of the landfill through the landfill valuation method shall be assessed by the department in the same manner as real property of all other taxpayers under KRS Chapter 132.

(a) State and local real property taxes shall be applied to the assessed value of the other real property and shall be added to the taxes assessed on the real property value determined by the landfill valuation method.

(b) The landfill operator shall provide the department with a summary statement of the total acreage of land owned by the landfill company, the total acreage of the permitted landfill area, and the total acreage of the active contained landfill.

(3) Any information required to be supplied by the landfill owner or operator in connection with this administrative regulation shall be held in strict confidence by the department unless otherwise required by law.

(4) The allocation of value of tangible personal property incorporated into a landfill and certified as pollution control pursuant to KRS 132.020(1)(k) shall be determined by taking the present value of landfill royalty income, as determined in subsection (1) of this section and subtracting out the value attributable to undeveloped land and the value attributable to real property structures (i.e., demonstrative and nonexclusive examples of which include maintenance buildings, perimeter fencing, etc.) not certified as pollution control. The remaining value shall constitute the value allocation attributable to certified pollution control tangible personal property incorporated into the landfill.

(43 Ky.R. 360, 563; eff. 12-2-2016; Cert. eff. 11-13-2023.)