MARYLAND DEPARTMENT OF THE ENVIRONMENT
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Determination of Applicability of the Food Residuals Diversion Requirement under 2021 House Bill 264/Senate Bill 483

In 2021, House Bill 264/Senate Bill 483, Organics Recycling and Waste Diversion – Food Residuals (the law) was passed by the General Assembly. The requirements become effective beginning January 1, 2023. This document is a guide to assist in determining if a facility is considered a "person" under the Food Residuals Diversion law and if the facility is required to divert food residuals from final disposal at a landfill or incinerator. The steps outlined in this guide identify, per the law: if a facility is considered a "person"; if the facility meets the location criteria; and if the facility generates the threshold amount of food residuals.

Additional information about the law, including the methods and types of food residual diversion techniques that a person may choose to use to meet the requirements of the law can be found here. Additional information will also be documented in forthcoming regulations.

The definition of food residuals from the law means materials derived from the processing or discarding of food, including pre- and post-consumer vegetables, fruits, grains, dairy products, and meats.

Step 1: Determining whether a facility is a "person"

The law only applies to a facility that meets the definition of a "person." By definition, a "person" includes most facilities that generate food residuals, including an individual facility owned or operated by a local school system; an individual public primary or secondary school; an individual nonpublic school; a supermarket, convenience store, mini-mart, or similar establishment; a business, school, or institutional cafeteria; and a cafeteria operated by or on behalf of the state, or local government.

A 'person' does not include the aggregate of all school buildings and facilities in local school system; or a restaurant establishment that accommodates the public and is equipped with a dining room with facilities for preparing and serving regular meals.

For frequently asked questions on person definition see Frequently Asked Questions on website.

After determining if a facility is a person under the law, the next step is location relative to organics recycling facilities.

Step 2: Location assessment – how far is the nearest organics recycling facility?

Are you located within 30 miles of an organics recycling facility?

The food residuals diversion requirement applies only to a person who is located *within* a 30-mile radius of an organics recycling facility that *has* capacity to accept and process all the person's food residuals and is willing to enter into a contract with the person or their hauler.

The Department maintains an interactive map which illustrates known organics recycling facilities in and around Maryland. This map is not intended to identify all locations, nor identify capacity or willingness to accept a person's food residuals. If you would like your facility to be included on this map, please contact the Department.

If no organics recycling facility has capacity and is willing to enter into a contract to accept a person's food residuals, the person is not required to divert food residuals from final disposal until an organics recycling facility becomes available to do so.

Notes:

- It is the responsibility of each person to determine when a new organics recycling facility opens. To stay current on new facilities permitted by the Department, sign up for our notification emails; however, these notifications will not identify out-of-state facilities. Ultimately the onus falls on a facility to maintain awareness for compliance, therefore the Department recommends periodically reviewing the map at least once every six months.
- The presence of an organics recycling facility within a 30 mile radius of a person is a factor in determining whether the food residuals diversion requirement applies to that person; however, the law does not require a person to contract with that particular organics recycling facility. The person is free t contract with any organics recycler, within or in excess of 30-mile radius OR use other diversion methods authorized under the law.

After determining if a facility is a person under the law and an organics recycling facility is within 30-miles and willing and able to accept the food residuals, the final condition is based on the amount of food residuals a person generates.

Step 3: Does food residual quantity meet the threshold?

The food residuals diversion requirement applies only to persons producing 2-tons or greater a week by January 1, 2023, and 1-ton or greater a week by January 1, 2024.

Perform a waste assessment

A waste assessment is necessary to determine how much waste is created. Initial estimates may not accurately represent quantities due to seasonality or operations. The Department recommends a facility enact a program to assess weight of food residuals generated on a weekly basis to ensure compliance with the law. If a person's measurements quantify food residual weight on a monthly basis, a weekly average weight can be determined by dividing the monthly total by .4.

How to perform and what's in a waste assessment?

The EPA has provided a guide to assist with conducting a food residuals assessment. The EPA guide provides general guidance on materials and staffing needed. The Department recognizes several ways for a person to calculate their food residual weight.

1) *By scale measurement* – an actual weight measurement of the food residuals after separation from other materials that would be disposed. This is the preferred and most accurate measurement.

Note: Depending on the frequency weight is measured, a facility may need to add or sum and divide to determine a weekly total. If a facility weighs the residuals daily, a sum of 7 days would provide a weekly total. A facility may choose to weigh food residuals daily for 7 days to generate a weekly total. Or, particularly if the amount of food residuals generation varies a lot from week to week, the facility may weigh the food residuals over of a month and divide by 4 to generate a weekly average over the monthly (28-consecutive days) period.

2) *By container size*: a weight estimate determined by the volume of food residuals generated, as measured by the container size filled. Container sizes and capacity may be provided by a facilities contracted organics waste hauler or by a facility performing an audit and in conjunction use the EPA's estimator[1] (see Figure 1). The EPA volume-to-weight estimator is provided in pounds per container, to convert to tons, divide by 2,000.

Category	Recyclable Materials	Volume	Estimated Weight (lbs)
Food			
	Fats, Oils, Grease	55-gallon	412
	Organics - commercial	cubic yard	135
	Source Separated Organics - commercial	cubic yard	1,000
	Food Waste - restaurants	cubic yard	396
	Food Waste	cubic yard	463
	Food Waste	cubic foot	22-45
	Food waste - university	gallon	3.8
	Food Waste	64 gallon toter	150
	Food waste	2 cubic yard full towable	2,736

Figure 1 – Standard Volume-to-Weight Conversion Factors for food

Note: Container size estimation method still requires separating food residuals from other materials that would be disposed.

3) By industry sector estimate – based on the industry sector of a facility, generation factors have been approved by the Department for use to estimate weekly tonnage of food residuals. This information can be found in the document Maryland Food Residual Generation Factor Estimates by Industry Sector, September 2022.

Note: If there is a weight estimator or sector estimator that you have determined is more accurate than the ones provided, please contact the Department for review and approval.

Timeline

This law enacts a stepdown weight threshold over time. Facilities generating 2-tons or more a week of food residuals as of January 1, 2023, and 1-ton or more a week of food residuals as of January 1, 2024, meet the thresholds of the law.

1) *Facilities open and generating food residuals as of January 1, 2023*: Utilizing the weight calculations above, if the facility generates 2-tons or more a week, the threshold is met.
2) *Facilities that open and begin generating food residuals between January 1, 2023, and January 1, 2024*:

[1] EPA Office of Resource Conservation Recovery (April 2016). Volume-to-Weight Conversion Factors, page 3, Category Food https://www.epa.gov/sites/default/files/2016-04/documents/volume_to_weight_conversion_factors_memorandum_04192016_508fnl.pdf

a. If calculating weight by scale or by container estimate, this must be performed by no later than 90 days after beginning operations which generate food residuals. [e.g., A facility opens on July 1, weight calculations are performed from residuals generated from opening by no later than September 29].
b. If calculating weight by sector estimate, the weight is to be calculated beginning the first week of operation.
c. Any facility that generates 2-tons or more a week meets the threshold.

3) *Facilities open and generating food residuals as of January 1, 2024:* Utilizing the weight calculations above, if the facility generates 1-ton or more of food residuals per week, the threshold is met.
4) *Facilities* that open and generate food residuals after January 1, 2024:
    a. If calculating weight by scale or by container estimate, this must be performed by no later than 90 days after beginning operations which generate food residuals. [e.g., A facility opens on July 1, weight calculations are performed from residuals generated from opening by no later than September 29]
    b. If calculating weight by sector estimate, the weight is to be calculated beginning the first week of operation.
    c. Any facility that generates 1-ton or more a week meets the threshold.

Facilities not meeting thresholds based on initial calculations are required to ensure compliance with the law while in operation. An example of this occurrence would be–institutions that are not open due to break/holidays in January, stadiums where the sporting activity is only during dedicated months, or if a facility changes its production schedules.

Step 4: Document the results of the food residuals measurement

Each facility will perform its own waste assessment as identified in this guide. At a minimum, the facility shall maintain, onsite, the following information for each set of waste assessments. If, upon inspection the facility does not have these materials on-site, they must provide them to the Department.

- How weight was calculated – identify which of the methodologies identified in Step 3 of this Document was implemented along with all calculations where necessary in estimates, including approval letter from the Department if alternative methods are utilized.
- Breakdown of waste streams, by type, weight and date(s) assessed.
- Facility Name and Address
- Person(s) performing waste assessment
- Method used (scale, volume/container, industry-sector), include a copy of any estimator/methodologies used.
- Summary of food residual totals – tons each week
- Calculations and statistics charted over documented waste estimation period (e.g., 7-days, 28-days) if using scale or volume/container method

NOTES:

Diverted food residual loads rejected by an organics recycler due to high contamination (e.g., cutlery, foil packaging, etc.), or violating a contract with an organics recycler due to contamination, does not negate a person's requirements to divert food residuals under the law.

A person has the opportunity to comply with the law's requirements of diversion by: source reduction; feeding people; feedstock for animals; recycling by composting or by anaerobic digestion. Any combination of these options may be performed on- or off-site of the persons facility.

An outline of requirements once a facility is identified as a person and the law is applicable can be found in detail on the MDE website.

Contact

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