

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials Administration • Resource Management Program
1800 Washington Boulevard • Suite 610 • Baltimore, Maryland 21230-1719
410-537-3314 • 800-633-6101 x3314 • www.mde.maryland.gov

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 to 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 food	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 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

- 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*:
 - 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

See Appendix A for example

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](#).

Annual Reporting

Those mandated to divert per the law, shall report all solid waste and recyclable materials as identified in COMAR 26.04.13.05 annually, on or before March 1st of each year a person is subject to the law.

To facilitate reporting, please complete the online form found [here](#).

Information shall be completed for each county in which facilities are located.

Contact

The Department's Resource Management Program: [Shannon McDonald](#) or [Sara Weitzel](#) 410-537-3314

Appendix A

A person needs to maintain certain documentation demonstrating the person's compliance with the food residuals diversion mandate. Under [COMAR 26.04.13.05](#), a person must provide the following documentation to MDE within 30 days of receiving a request from MDE, or by an alternative deadline set by MDE:

- The actual or estimated weight of food residuals generated by the person each week;
- Any correspondence between the person and an organics recycling facility located within a 30-mile radius of the person that demonstrates the organics recycling facility's willingness to accept all of the person's food residuals or enter into a contract to accept and process all of the person's food residuals;
- Any correspondence from all of the organics recycling facilities located within 30 miles of the person that demonstrates an organics recycling facility is unable or unwilling to enter a contract with the person to accept and process all of the person's food residuals; and
- Any other information MDE deems necessary.

Records should be maintained for at least 3 calendar years from the date of creation or receipt.

Types of Records to Maintain

To comply with the recordkeeping requirements, at a minimum, a person should document:

- ✍ The waste assessment methodology or practices used, such as records of calculations made, photos of source separation or assessment activities, industry/business practices factors considered, or statistics tracked;
- ✍ The dates that waste assessment and/or weight measurements occurred, including the weight (actual or estimated) and type of food residuals assessed and/or weighed, and the name and title of the person who performed the waste assessment;
- ✍ The total amount, by weight and type, of food residuals diverted through source reduction, food donation, agricultural uses (animal feeding or land application), and organics recycling;
- ✍ The name, physical address, and contract information for the organizations and facilities accepting diverted food residuals (e.g., food bank, farm, composting facility, etc.);
- ✍ Any written agreements or contracts with - or - receipts or invoices from food recovery organizations, haulers, and organics processing or recycling facilities that accept or process the diverted food residuals; and
- ✍ If applicable, copies of any approved waivers issued by MDE.

Documents received from food recovery or recycling entities must (1) include an official letterhead or their name, address, and contact information, or (2) be signed and dated by a person responsible for the food recovery or recycling entity.

Methods of Recordkeeping

Recordkeeping can be accomplished using one or a combination of methods, such as:

- Maintaining electronic or written spreadsheets or logs (e.g., EPA's Waste Logbook);
- Using free or commercially available software or applications that track food waste generation or diversion activities (note, these technologies must provide a means of downloading or printing records); or
- Maintaining copies of written agreements and acknowledgments from the organizations and facilities accepting diverted food residuals.

FORM A – Information to be maintained onsite (EXAMPLE)

Section 1 - Information specific to where materials are generated				
Facility Information				
Name of Facility				
Facility/Industry Type				
Physical Address				
Mailing Address (if different)				
County where Facility is Located				
Point of Contact (Name & Title)				
Email		Phone		
Authorized Representative Information (if different than point of contact)				
Individual's Name & Title				
Email		Phone		
Section 2 - Waste Assessment Method & Annual Summary				
Identify methodology used to calculate waste: Waste Sort & Weight (WW), Estimation by containers (C), Estimation by Industry Type (IT), Other (O) <i>include approval from MDE</i>				
Waste Streams Summary (see Form B for detailed information)				
Type	Weight (actual or estimate)	Date(s) Assessed (M/D – M/D)	Recorded by (Name)	Waste Assessment Type (WW, C, IT, O)
Organics <i>categorized as food residuals in the law</i>				
Recycling <i>bottles, cans, metal, plastic, cardboard, paper, etc.</i>				
Waste Disposed <i>non-recycling/non-compostable materials</i>				
<div style="border: 2px solid red; border-radius: 15px; padding: 10px; background-color: red; color: white; text-align: center; width: fit-content; margin: 10px auto;"> <p>This is the information to be reported annually online via the Business Reporting Form</p> </div> <div style="border: 1px solid green; border-radius: 10px; padding: 5px; background-color: white; color: green; text-align: center; width: fit-content; margin: 10px auto;"> <p>correspondence attached?</p> </div>				
Section 3 -Organics Recycling Facility Correspondence				
Accepting materials?	Name of Facility	Physical Address		

include attachment for any invoice, contract, receipts, etc.

Section 4 - Organics Diversion Totals – Annual Summary			Weight (units)
(RG) Reduction in Generation (list)			
(OR) Organics Recycling - onsite (equipment used)			
(SD) Servable Food Donation			
Name of Facility	Physical Address		
(AU) Agricultural Uses			
Name of Facility	Physical Address		
(OR) Organics Recycling - offsite			
Name of Facility	Physical Address		
Total Diverted (include units)			
Section 5 - Certification and Contact Information			
<p>By signing this form, I the applicant or duly authorized representative, do solemnly affirm under the penalties of perjury that the contents of this application are true to the best of my knowledge, information and belief. I hereby authorize the representatives of the Department to have access to and inspect the facility associated with this application and to records relating to this application at any reasonable time.</p>			
Authorized Representative's Signature		Date Signed	

FORM B – Details of Waste Streams

[illegible]