

WAC 173-441-120 Calculation methods incorporated by reference from 40 C.F.R. Part 98 for facilities. Owners and operators of facilities that are subject to this chapter must follow the requirements of this chapter and all subparts of 40 C.F.R. Part 98 listed in Table 120-1 of this section. If a conflict exists between a provision in WAC 173-441-050(3) through 173-441-080 and any applicable provision of this section, the requirements of this section must take precedence.

(1) **Source categories and calculation methods for facilities.** An owner or operator of a facility subject to the requirements of this chapter must report GHG emissions, including GHG emissions from biomass, from all applicable source categories in Washington state listed in Table 120-1 of this section using the methods incorporated by reference in Table 120-1. Table 120-1 and subsection (2) of this section list modifications and exceptions to calculation methods adopted by reference in this section.

**Table 120-1:
Source Categories and Calculation Methods
Incorporated by Reference from 40 C.F.R. Part 98 for Facilities**

Note: All source categories in Table 120-1 are considered facilities even if the source category name includes the word "supplier."

Source Category	40 C.F.R. Part 98 Subpart*	Exceptions to Calculation Method or Applicability Criteria^{+#}
General Stationary Fuel Combustion Sources	C	
Electricity Generation	D	
Adipic Acid Production	E	
Aluminum Production	F	
Ammonia Manufacturing	G	
Cement Production	H	
Electronics Manufacturing	I	In § 98.91, replace "To calculate total annual GHG emissions for comparison to the 25,000 metric ton CO ₂ e per year emission threshold in paragraph § 98.2 (a)(2), follow the requirements of § 98.2(b), with one exception" with "To calculate GHG emissions for comparison to the emission threshold in WAC 173-441-030(1), follow the requirements of WAC 173-441-030 (1)(b), with one exception."
Ferroalloy Production	K	
Fluorinated Gas Production	L	In § 98.121, replace "To calculate GHG emissions for comparison to the 25,000 metric ton CO ₂ e per year emission threshold in § 98.2 (a)(2)" with "To calculate GHG emissions for comparison to the emission threshold in WAC 173-441-030(1)."
Glass Production	N	
HCFC-22 Production and HFC-23 Destruction	O	
Hydrogen Production	P	
Iron and Steel Production	Q	
Lead Production	R	
Lime Manufacturing	S	
Magnesium Production	T	
Miscellaneous Uses of Carbonate	U	
Nitric Acid Production	V	

Source Category	40 C.F.R. Part 98 Subpart*	Exceptions to Calculation Method or Applicability Criteria ^{†#}
Petroleum and Natural Gas Systems	W	§ 98.231(a) should read: "You must report GHG emissions under this subpart if your facility contains petroleum and natural gas systems and the facility meets the requirements of WAC 173-441-030(1)."
Petrochemical Production	X	
Petroleum Refineries	Y	
Phosphoric Acid Production	Z	
Pulp and Paper Manufacturing	AA	
Silicon Carbide Production	BB	
Soda Ash Manufacturing	CC	
Electrical Transmission and Distribution Equipment Use	DD	§ 98.301 should read: "You must report GHG emissions under this subpart if your facility contains any electrical transmission and distribution equipment use process and the facility meets the requirements of WAC 173-441-030(1)." See subsection (2)(f) of this section.
Titanium Dioxide Production	EE	
Underground Coal Mines	FF	
Zinc Production	GG	
Municipal Solid Waste Landfills	HH	CO ₂ from combustion of landfill gas must also be included in calculating emissions for reporting and determining if the reporting threshold is met.
Industrial Wastewater Treatment	II	CO ₂ from combustion of wastewater biogas must also be included in calculating emissions for reporting and determining if the reporting threshold is met.
Manure Management	JJ	See subsection (2)(e) of this section.
Suppliers of Coal-Based Liquid Fuels	LL	§ 98.380(b) should read: "An importer or exporter shall have the same meaning given in WAC 173-441-120 (2)(h)." § 98.381 should include: "Reporting of exports is voluntary."
Suppliers of Petroleum Products	MM	§ 98.391 should read: "Any refiner or importer that meets the requirements of WAC 173-441-030(1) must report GHG emissions. Any exporter of petroleum products and natural gas liquids may report GHG emissions associated with exported petroleum products using the methods established in this subpart." See subsection (2)(h) of this section.
Suppliers of Natural Gas and Natural Gas Liquids	NN	§ 98.401 should read: "Any supplier of natural gas and natural gas liquids that meets the requirements of WAC 173-441-030(1) must report GHG emissions."
Suppliers of Industrial Greenhouse Gases	OO	§ 98.411 should include: "Reporting of exports is voluntary."
Suppliers of Carbon Dioxide	PP	§ 98.421 should read: "Any supplier of CO ₂ who meets the requirements of WAC 173-441-030(1) must report the mass of CO ₂ captured, extracted, or imported. The mass of CO ₂ exported may be reported using the methods established in this subpart."
Importers and Exporters of Fluorinated Greenhouse Gases Contained in Pre-Charged Equipment or Closed-Cell Foams	QQ	§ 98.431 should read: "Any importer of fluorinated GHGs contained in pre-charged equipment or closed-cell foams who meets the requirements of WAC 173-441-030(1) must report each fluorinated GHG contained in the imported pre-charged equipment or closed-cell foams. Any exporter of fluorinated GHGs contained in pre-charged equipment or closed-cell foams may report GHG emissions associated with exported products using the methods established in this subpart."

Source Category	40 C.F.R. Part 98 Subpart*	Exceptions to Calculation Method or Applicability Criteria ^{†#}
Geologic Sequestration of Carbon Dioxide	RR	§ 98.441(a) should read: "You must report GHG emissions under this subpart if any well or group of wells within your facility injects any amount of CO ₂ for long-term containment in subsurface geologic formations and the facility meets the requirements of WAC 173-441-030(1)."
Electrical Equipment Manufacture or Refurbishment	SS	§ 98.451 should read: "You must report GHG emissions under this subpart if your facility contains an electrical equipment manufacturing or refurbishing process and the facility meets the requirements of WAC 173-441-030(1)."
Industrial Waste Landfills	TT	CO ₂ from combustion of landfill gas must also be included in calculating emissions for reporting and determining if the reporting threshold is met.
Injection of Carbon Dioxide	UU	§ 98.471 should read: "(a) You must report GHG emissions under this subpart if your facility contains an injection of carbon dioxide process and the facility meets the requirements of WAC 173-441-030(1). For purposes of this subpart, any reference to CO ₂ emissions in WAC 173-441-030 means CO ₂ received."

* Unless otherwise noted, all calculation methods are from 40 C.F.R. Part 98, as adopted by September 1, 2016.

† Modifications and exceptions in subsection (2) of this section and WAC 173-441-010 through 173-441-050(2) also apply.

Whenever the use of verification software is required or voluntarily used, the file generated by the verification software must be submitted with the facility's annual GHG report.

(2) **Modifications and exceptions to calculation methods adopted by reference.** Except as otherwise specifically provided:

(a) Wherever the term "administrator" is used in the rules incorporated by reference in this chapter, the term "director" must be substituted.

(b) Wherever the term "EPA" is used in the rules incorporated by reference in this chapter, the term "ecology" must be substituted.

(c) Wherever the term "United States" is used in the rules incorporated by reference in this chapter, the term "Washington state" must be substituted.

(d) Wherever a calculation method adopted by reference in Table 120-1 of this section or a definition adopted by reference from 40 C.F.R. Part 98.6 refers to another subpart or paragraph of 40 C.F.R. Part 98:

(i) If Table 120-2 of this section lists the reference, then replace the reference with the corresponding reference to this chapter as specified in Table 120-2.

(ii) If the reference is to a subpart or subsection of a reference listed in Table 120-2 of this section, then replace the reference with the appropriate subsection of the corresponding reference to this chapter as specified in Table 120-2.

(iii) If the reference is to a subpart or paragraph of 40 C.F.R. Part 98 Subparts C through UU incorporated by reference in Table 120-1, then use the existing reference except as modified by this chapter.

(e) For manure management, use the following subsections instead of the corresponding subsections in 40 C.F.R. § 98.360 as adopted by September 1, 2016.

(i) 40 C.F.R. § 98.360(a): This source category consists of live-stock facilities with manure management systems.

(A) § 98.360 (a) (1) is not adopted by reference.

(B) § 98.360 (a) (2) is not adopted by reference.

(ii) 40 C.F.R. § 98.360(b): A manure management system (MMS) is a system that stabilizes and/or stores livestock manure, litter, or man-

ure wastewater in one or more of the following system components: Uncovered anaerobic lagoons, liquid/slurry systems with and without crust covers (including, but not limited to, ponds and tanks), storage pits, digesters, solid manure storage, dry lots (including feedlots), high-rise houses for poultry production (poultry without litter), poultry production with litter, deep bedding systems for cattle and swine, manure composting, and aerobic treatment.

(iii) 40 C.F.R. § 98.360(c): This source category does not include system components at a livestock facility that are unrelated to the stabilization and/or storage of manure such as daily spread or pasture/range/paddock systems or land application activities or any method of manure utilization that is not listed in § 98.360(b) as modified in WAC 173-441-120 (2)(e)(ii).

(iv) 40 C.F.R. § 98.360(d): This source category does not include manure management activities located off-site from a livestock facility or off-site manure composting operations.

(v) 40 C.F.R. § 98.361: Livestock facilities must report GHG emissions under this subpart if the facility contains a manure management system as defined in 98.360(b) as modified in WAC 173-441-120 (2)(e)(ii), and meets the requirements of WAC 173-441-030(1).

(vi) 40 C.F.R. § 98.362 (b) and (c) are not adopted by reference.

(vii) 40 C.F.R. § 98.362(a), 40 C.F.R. § 98.363 through 40 C.F.R. § 98.368, Equations JJ-2 through JJ-15, and Tables JJ-2 through JJ-7 as adopted by September 1, 2016, remain unchanged unless otherwise modified in this chapter.

(viii) CO₂ from combustion of gas from manure management must also be included in calculating emissions for reporting and determining if the reporting threshold is met.

(f) For electrical transmission and distribution equipment use facilities where the electrical power system crosses Washington state boundaries, limit the GHG report to emissions that occur in Washington state using one of the following methods:

(i) Direct, state specific measurements;

(ii) Prorate the total emissions of the electric power system based upon either nameplate capacity or transmission line miles in the respective service areas by state using company records. Update the nameplate capacity or transmission line miles factor each reporting year and include the data used to establish the nameplate capacity or transmission line miles factor with your annual GHG report;

(iii) Prorate the total emissions of the electric power system based upon population in the respective service areas by state using the most recent U.S. Census data. Update the population factor each reporting year and include the data used to establish the population factor with your annual GHG report.

(g) Use the following method to obtain specific version or date references for any reference in 40 C.F.R. Part 98 that refers to any document not contained in 40 C.F.R. Part 98:

(i) If the reference in 40 C.F.R. Part 98 includes a specific version or date reference, then use the version or date as specified in 40 C.F.R. Part 98.

(ii) If the reference in 40 C.F.R. Part 98 does not include a specific version or date reference, then use the version of the referenced document as available on the date of adoption of this chapter.

(h) For suppliers of petroleum products or coal-based liquid fuels, use the following subsections instead of the corresponding subsections in 40 C.F.R. § 98.390 as adopted by September 1, 2016.

(i) 40 C.F.R. § 98.390: Definition of the source category.

This source category consists of petroleum refineries and importers and exporters of petroleum products and natural gas liquids as listed in Table MM-1 of this subpart.

(A) A petroleum refinery for the purpose of this subpart is any facility engaged in producing petroleum products through the distillation of crude oil.

(B) A refiner is the owner or operator of a petroleum refinery.

(C) Importer has the same meaning given in subsection (2)(h)(ii) of this section and includes any entity that imports petroleum products, natural gas liquids, or coal-based liquid fuels as listed in Table MM-1 of this subpart. Any blender or refiner of refined or semi-refined petroleum products shall be considered an importer if it otherwise satisfies the aforementioned definition.

(D) Exporter has the same meaning given in subsection (2)(h)(ii) of this section and includes any entity that exports petroleum products, natural gas liquids, or coal-based liquid fuels as listed in Table MM-1 of this subpart. Any blender or refiner of refined or semi-refined petroleum products shall be considered an exporter if it otherwise satisfies the aforementioned definition.

(ii) Definitions specific to imports and exports:

(A) Export means to transport a product from inside Washington state to persons outside Washington state, excluding any such transport on behalf of the United States military including foreign military sales under the Arms Export Control Act. The final destination of the product must occur outside of Washington state.

(B) Exporter means any person, company or organization of record that transfers for sale or for other benefit, products from Washington state to another state, country, or to an affiliate in another country, excluding any such transfers on behalf of the United States military or military purposes including foreign military sales under the Arms Export Control Act. The final destination of the product must occur outside of Washington state. An exporter is not the entity merely transporting the domestic products, rather an exporter is the entity deriving the principal benefit from the transaction.

(C) Import means, to land on, bring into, or introduce into, any place subject to the jurisdiction of Washington state.

(D) Importer means any person, company, or organization of record that for any reason brings a product into Washington state from a different state or foreign country, excluding introduction into Washington state jurisdiction exclusively for United States military purposes. The term includes, as appropriate:

(I) The consignee.

(II) The importer of record.

(III) The actual owner.

(IV) The transferee, if the right to draw merchandise in a bonded warehouse has been transferred.

(iii) Each importer shall report all information at the state level.

(iv) Each exporter choosing to report emissions associated with exported products to ecology under these subparts shall report all information at the state level:

(v) Exporters choosing to report emissions associated with exported products to ecology under these subparts and refineries and importers must report information for each product where emissions were calculated.

**Table 120-2:
Corresponding References in 40 C.F.R. Part 98 and
Chapter 173-441 WAC**

Reference in 40 C.F.R. Part 98		Corresponding Reference in Chapter 173-441 WAC	
Section	Topic	Section	Topic
40 C.F.R. Part 98 or "part"	Mandatory Greenhouse Gas Reporting	Chapter 173-441 WAC	Reporting of Emissions of Greenhouse Gases
Subpart A	General Provision	WAC 173-441-010 through 173-441-100	General Provisions
§ 98.1	Purpose and scope	WAC 173-441-010	Scope
§ 98.2	Who must report?	WAC 173-441-030	Applicability
§ 98.2(a)	Applicability: Facility reporting	WAC 173-441-030(1)	Applicability: Facility reporting
§ 98.2 (a)(1)	Applicability: Facility reporting Table A-3	WAC 173-441-030(1)	Applicability: Facility reporting
§ 98.2 (a)(2)	Applicability: Facility reporting Table A-4	WAC 173-441-030(1)	Applicability: Facility reporting
§ 98.2 (a)(3)	Applicability: Facility reporting source categories that meet all three of the conditions listed in this paragraph (a)(3)	WAC 173-441-030(1)	Applicability: Facility reporting
§ 98.2 (a)(4)	Applicability: Facility reporting Table A-5 source categories	WAC 173-441-030(1)	Applicability: Facility reporting
§ 98.2(b)	Calculating emissions for comparison to the threshold	WAC 173-441-030 (1)(b)	Calculating facility emissions for comparison to the threshold
§ 98.2(i)	Reporting requirements when emissions of greenhouse gases fall below reporting thresholds	WAC 173-441-030(5)	Reporting requirements when emissions of greenhouse gases fall below reporting thresholds
§ 98.3	What are the general monitoring, reporting, recordkeeping and verification requirements of this part?	WAC 173-441-050	General monitoring, reporting, recordkeeping and verification requirements
§ 98.3(c)	Content of the annual report	WAC 173-441-050(3)	Content of the annual report
§ 98.3(g)	Recordkeeping	WAC 173-441-050(6)	Recordkeeping
§ 98.3 (g)(5)	A written GHG monitoring plan	WAC 173-441-050 (6)(e)	A written GHG monitoring plan
§ 98.3(i)	Calibration accuracy requirements	WAC 173-441-050(8)	Calibration and accuracy requirements
§ 98.3 (i)(6)	Calibration accuracy requirements: Initial calibration	WAC 173-441-050 (8)(f)	Calibration accuracy requirements: Initial calibration
§ 98.4	Authorization and responsibilities of the designated representative	WAC 173-441-060	Authorization and responsibilities of the designated representative
§ 98.5	How is the report submitted?	WAC 173-441-070	Report submittal
§ 98.5(b)	Verification software	WAC 173-441-070(1)	Facility report submittal
§ 98.6	Definitions	WAC 173-441-020	Definitions
§ 98.7	What standardized methods are incorporated by reference into this part?	WAC 173-441-080	Standardized methods and conversion factors incorporated by reference
§ 98.8	What are the compliance and enforcement provisions of this part?	WAC 173-441-090	Compliance and enforcement
§ 98.9	Addresses	WAC 173-441-100	Addresses
Table A-1 to Subpart A of Part 98—Global Warming Potentials, Table A-1 of this part, or Table A-1 of this subpart	Global Warming Potentials	Table A-1 of WAC 173-441-040	Global Warming Potentials
Table A-2 to Subpart A of Part 98—Units of Measure Conversions	Units of Measure Conversions	Table A-2 of WAC 173-441-080	Units of Measure Conversions

(3) **Calculation methods for voluntary reporting.** GHG emissions reported voluntarily under WAC 173-441-030(4) must be calculated using the following methods:

(a) If the GHG emissions have calculation methods specified in Table 120-1 of this section, use the methods specified in Table 120-1.

(b) If the GHG emissions have calculation methods specified in WAC 173-441-130, use the methods specified in WAC 173-441-130.

(c) For all GHG emissions from facilities not covered in Table 120-1 of this section or persons supplying any product other than those listed in WAC 173-441-130, contact ecology for an appropriate calculation method no later than one hundred eighty days prior to the

emissions report deadline established in WAC 173-441-050(2) or submit a petition for alternative calculation methods according to the requirements of WAC 173-441-140.

(4) **Alternative calculation methods approved by petition.** An owner or operator may petition ecology to use calculation methods other than those specified in Table 120-1 of this section to calculate its facility GHG emissions. Such alternative calculation methods must be approved by ecology prior to reporting and must meet the requirements of WAC 173-441-140.

[Statutory Authority: Chapters 70.94, 70.235 RCW. WSR 16-19-047 (Order 15-10), § 173-441-120, filed 9/15/16, effective 10/16/16; WSR 15-04-051 (Order 13-13), § 173-441-120, filed 1/29/15, effective 3/1/15. Statutory Authority: 2010 c 146, and chapters 70.235 and 70.94 RCW. WSR 10-24-108 (Order 10-08), § 173-441-120, filed 12/1/10, effective 1/1/11.]