

DATE: September 2014
TO: Docket EPA-HQ-OAR-2010-0929
FROM: Lisa Grogan-McCulloch
SUBJECT: Final Data Elements Deferred to March 31, 2015: List of Data Elements Not To Be Reported

Table 1 lists the data elements for which reporting was deferred to March 31, 2015 that will not to be reported, as specified in the final rulemaking “Revisions to Reporting and Recordkeeping Requirements, and Confidentiality Determinations under the Greenhouse Gas Reporting Program.”

Table 2 lists data elements for which reporting was deferred to March 31, 2015 that the EPA is not amending in this action, as specified in the final rulemaking, because there are no disclosure concerns based on the EPA’s analysis documented in “Final Evaluation of Competitive Harm from Disclosure of ‘Inputs to Equations’ Data Elements Deferred to March 31, 2015,” September 2014. As a result, these data elements must be reported under the final rulemaking.

Though the “Final Evaluation of Competitive Harm” memorandum cited above includes analysis results for the inputs to emission equations in subpart L for which reporting was deferred to 2015, these subpart L inputs to emission equations are not included in Tables 1 or 2 of this memorandum because the EPA’s final decisions on the reporting of subpart L inputs will be addressed in a separate rulemaking.

Table 1. List of Data Elements for which Reporting was Deferred to March 31, 2015 that are Not To Be Reported

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
<p>C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.3(d)(3)(v)^{1, 2}</p>	<p>For any facility who submitted an abbreviated emissions report under §98.3(d)(3)(v), any facility operating data or process information used for the GHG emission calculations.</p>	
<p>C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.36(b)(9)(iii)¹</p>	<p>Estimate of the heat input from each type of fuel listed in Table C-2 that was combusted in the unit during the report year.</p>	<p>C-10</p>

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
<p>C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.36(c)(2)(ix)^{1,3}</p>	<p>The flue gases from two or more stationary fuel combustion units at a facility are combined together and discharged through a common stack or duct before exiting to the atmosphere and if CEMS are used to continuously monitor CO₂ mass emissions at the common stack or duct according to the Tier 4 Calculation Methodology, you may report the combined emissions from the units sharing the common stack or duct, in lieu of separately reporting the GHG emissions from the individual units. This monitoring and reporting alternative may also be used when process off-gases or a mixture of combustion products and process gases are combined together in a common stack or duct before exiting to the atmosphere. An estimate of the heat input from each type of fuel listed in Table C-2 combusted during the reporting year.</p>	<p>C-10</p>
<p>C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.36(e)(2)(i)¹</p>	<p>Total quantity of each type of fuel combusted in each unit or group of aggregated units (as applicable) during the reporting year, in short tons for solid fuels, gallons for liquid fuels and standard cubic feet for gaseous fuels, or, if applicable, therms or mmBtu for natural gas.</p>	<p>C-1</p>

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i) ¹	Total quantity of natural gas combusted in each unit or group of aggregated units (as applicable) during the reporting year, in therms per year.	C-1a
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i) ¹	Total quantity of natural gas combusted in each unit or group of aggregated units (as applicable) during the reporting year, in mmBtu per year.	C-1b

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i) ^{1,3}	Total quantity of each type of fuel combusted in each unit or group of aggregated units (as applicable) during the reporting year, in short tons for solid fuels, gallons for liquid fuels and standard cubic feet for gaseous fuels, or, if applicable, therms or mmBtu for natural gas.	C-8
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ii)(A) ¹	For Tier 2: Total quantity of each type of fuel combusted in the unit or group of aggregated units (as applicable) during each month of the reporting year. Express the quantity of each fuel combusted during the measurement period in short tons for solid fuels, gallons for liquid fuels, and scf for gaseous fuels.	C-2a, C-2b, C-9a ³

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ii)(C) ¹	High heat values used in the CO ₂ emissions calculations for each fuel combusted during the reporting year. Report a HHV value for each calendar month in which HHV determination is required. If multiple values are obtained in a given month, report the arithmetic average value for the month.	C-2a, C-2b, C-9a ³
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ii)(D) ¹	If Eq. C-2c is used: Ratio of the maximum rate heat input capacity to the design rated steam output capacity of the unit.	C-2c, C-9b ³

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ii)(D) ¹	If Eq. C-2c is used: Total quantity (i.e., pounds) of steam produced from MSW or solid fuel combustion during each month of the reporting year.	C-2c, C-9b ³
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A) ^{1,4}	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-13

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A) ¹	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-3 (to calculate annual fuel quantity) and C-2b (method cited in Eq C-3 to calculate annual average carbon content)
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A) ¹	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-4 (to calculate annual fuel quantity) and C-2b (method cited in Eq C-4 to calculate annual average carbon content)

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C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A) ¹	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-5(to calculate annual fuel quantity) and C-2b (method cited in Eq C-5 to calculate annual average carbon content)
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A) ^{1,3}	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-8

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i) ^{1,3}	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-8a
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i) ^{1,3}	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-8b

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(C) ¹	The carbon content used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month. (CC).	C-2b (method cited in Eq C-3 to calculate annual average carbon content, an input to Eq C-3)
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(C) ¹	The carbon content used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month. (CC).	C-2b (method cited in Eq C-4 to calculate annual average carbon content, an input to Eq C-4)

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C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(C) ¹	The carbon content used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month. (CC).	C-2b (method cited in Eq C-5 to calculate annual average carbon content, an input to Eq C-5)
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(C) ¹	Gas molecular weight values used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month.	C-2b (method cited in Eq C-5 to calculate annual average carbon content, an input to Eq C-5)

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<p>C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.36(e)(2)(iv)(F) ¹</p>	<p>The annual average HHV, when measured HHV data, rather than a default HHV from Table C-1 of this subpart, are used to calculate CH₄ and N₂O emissions for a Tier 3 unit, in accordance with §98.33(c)(1).</p>	<p>C-8</p>
<p>C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.36(e)(2)(ix)(D) ¹</p>	<p>For units that combust both fossil fuel and biomass, when biogenic CO₂ is determined according to §98.33(e)(2), report the carbon-based F-factor used in Equation C-13 of this subpart.</p>	<p>C-13</p>

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C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ix)(E) ¹	For units that combust both fossil fuel and biomass, when biogenic CO ₂ is determined according to §98.33(e)(2), report the annual average HHV value used in Equation C-13 of this subpart.	C-13
C (Stationary fuel combustion sources excluding those that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ix)(F) ¹	For units that combust both fossil fuel and biomass, when biogenic CO ₂ is determined according to §98.33(e)(2), report the total quantity of fossil fuel combusted during the reporting year.	C-13
E	§98.56(b)	Total annual adipic acid production from unit “z” (Pz).	E-2
E	§98.56(b) ³	Total annual adipic acid production from unit “z” (Pz).	E-3a
E	§98.56(b) ³	Total annual adipic acid production from unit “z” (Pz).	E-3b
E	§98.56(b) ³	Total annual adipic acid production from unit “z” (Pz).	E-3c
E	§98.56(b) ³	Total annual adipic acid production from unit “z” (Pz).	E-3d
E	§98.56(c)	Annual adipic acid production during which N ₂ O abatement technology (located after the test point) is operating (Pz,N).	E-2
E	§98.56(j)(1) ³	Emission factor for each unit (EFN2Oz).	E-3a

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
E	§98.56(j)(1) ³	Emission factor for each unit (EFN2O).	E-3b
E	§98.56(j)(1) ³	Emission factor for each unit (EFN2O).	E-3c
E	§98.56(j)(1) ³	Emission factor for each unit (EFN2O).	E-3d
E	§98.56(j)(3)	Production rate per test run during performance test for each unit (P).	E-1
F	§98.66(a)	Annual aluminum production. (MP)	F-5
F	§98.66(a)	Annual aluminum production. (MP)	F-6
F	§98.66(c)(2) ⁴	Anode effect minutes per cell-day. (AEM)	F-2
F	§98.66(c)(2) ⁴	Anode effect overvoltage factor. (EFCF4)	F-3
F	§98.66(c)(2) ⁴	Anode effect frequency.	Used to calculate AEM and the slope coefficients used as an input in Eq. F-2
F	§98.66(c)(2) ⁴	Anode effect duration.	Used to calculate AEM and the slope coefficients used as an input in Eq. F-2
F	§98.66(c)(2) ⁴	Potline overvoltage.	Used to calculate the overvoltage factor used as an input in Eq. F-3
F	§98.66(c)(2) ⁴	Current efficiency.	Used to calculate the overvoltage factor used as an input in Eq. F-3
F	§98.66(c)(3) ⁴	Smelter-specific slope coefficients. (SCF4)	F-2
F	§98.66(c)(3) ⁴	Overvoltage emission factors. (EFCF4)	F-3
F	§98.66(e)(1)	Annual anode consumption if not using the method in § 98.63(g). (No CEMS) (NAC)	F-5
F	§98.66(f)(1)	Annual paste consumption if not using the method in § 98.63(g). (No CEMS) (PC)	F-6
F	§98.66(g)	Sulfur content in baked anode (percent weight). (Sa)	F-5
F	§98.66(g)	Ash content in baked anode (percent weight). (Asha)	F-5
F	§98.66(g)	Binder content of paste (percent weight). (BC)	F-6
F	§98.66(g)	Sulfur content of pitch (percent weight). (Sp)	F-6
F	§98.66(g)	Ash content of pitch (percent weight). (Ashp)	F-6
F	§98.66(g)	Hydrogen content of pitch (percent weight). (Hp)	F-6
F	§98.66(g)	Sulfur content in calcined coke (percent weight). (Sc)	F-6
F	§98.66(g)	Ash content in calcined coke (percent weight). (Ashc)	F-6
F	§98.66(g)	Carbon in skimmed dust from Soderberg cells (metric ton C/metric ton Al) (CD).	F-6
F	§98.66(g)	Initial weight of green anodes (metric tons) (GA).	F-7
F	§98.66(g)	Annual hydrogen content in green anodes (metric tons) (Hw).	F-7
F	§98.66(g)	Annual baked anode production (metric tons) (BA).	F-7
F	§98.66(g)	Annual waste tar collected (metric tons) (WT).	F-7

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
F	§98.66(g)	Annual packing coke consumption (metric tons/metric ton baked anode) (PCC).	F-8
F	§98.66(g)	Annual baked anode production (metric tons) (BA).	F-8
F	§98.66(g)	Sulfur content in packing coke (percent weight) (SPc).	F-8
F	§98.66(g)	Ash content in packing coke (percent weight) (Ashpc).	F-8
G	§98.76(b)(2)	Monthly quantity of each type of feedstock consumed for ammonia manufacturing - Gaseous Feedstock.	G-1
G	§98.76(b)(2)	Monthly quantity of each type of feedstock consumed for ammonia manufacturing - Liquid Feedstock.	G-2
G	§98.76(b)(2)	Monthly quantity of each type of feedstock consumed for ammonia manufacturing - Solid Feedstock.	G-3
G	§98.76(b)(7)	Carbon content of the gaseous feedstock.	G-1
G	§98.76(b)(8)	Molecular weight of the gaseous feedstock.	G-1
G	§ 98.76(b)(9) ⁵	Molar volume conversion factor of the gaseous feedstock.	G-1
G	§98.76(b)(10)	Carbon content of the liquid feedstock, for month n.	G-2
G	§98.76(b)(11)	Carbon content of the solid feedstock, for month n.	G-3
H	§98.86(b)(2)	Monthly clinker production for each kiln (No CEMS).	H-2
H	§98.86(b)(5)	Quarterly quantity of CKD not recycled to the kiln.	H-2
H	§98.86(b)(6)	Monthly fraction of total CaO in clinker.	H-3
H	§98.86(b)(6)	Monthly fraction of total MgO in clinker.	H-3
H	§98.86(b)(6)	Monthly fraction of non-calcined CaO in clinker.	H-3
H	§98.86(b)(6)	Monthly fraction of non-calcined MgO in clinker.	H-3
H	§98.86(b)(8)	Quarterly fraction of total CaO in CKD not recycled to the kiln.	H-4
H	§98.86(b)(8)	Quarterly fraction of total MgO in CKD not recycled to the kiln.	H-4
H	§98.86(b)(8)	Quarterly fraction of non-calcined CaO in CKD not recycled to the kiln.	H-4
H	§98.86(b)(8)	Quarterly fraction of non-calcined MgO in CKD not recycled to the kiln.	H-4
H	§98.86(b)(10) ³	Monthly kiln-specific clinker CO ₂ emission factors for each kiln.	H-2
H	§98.86(b)(12)	Annual organic carbon content of each raw kiln feed or annual organic carbon content of each raw material.	H-5
H	§98.86(b)(13)	Annual consumption of each raw kiln feed or annual consumption of each raw material.	H-5
H	§98.86(b)(15)	Monthly kiln-specific raw kiln feed to clinker produced factors (if used) for each kiln.	Used to calculate clinker production by facilities using the method in 40 CFR 98.84(d) (i.e., kiln-specific clinker-to-feed factors)
K	§98.116(b)	Annual production by product from each EAF (tons) (used as input to Eq K-1): M _{productk} = Annual mass of alloy product k tapped from EAF (tons).	K-1
K	§98.116(b) ³	Annual production by product from each EAF (tons) (used as input to Eq K-3).	K-3

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
K	§98.116(e)(4)	Annual material quantity for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Mreducing agent _i = Annual mass of reducing agent i fed, charged, or otherwise introduced into the EAF (tons).	K-1
K	§98.116(e)(4)	Annual material quantity for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Melectrode _m = Annual mass of carbon electrode m consumed in the EAF (tons).	K-1
K	§98.116(e)(4)	Annual material quantity for each material included for the calculation of annual process CO ₂ emissions (No CEMS): More _h = Annual mass of ore h charged to the EAF (tons).	K-1
K	§98.116(e)(4)	Annual material quantity for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Mflux _j = Annual mass of flux material j fed, charged, or otherwise introduced into the EAF to facilitate slag formation (tons).	K-1
K	§98.116(e)(4)	Annual material quantity for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Mnon-product outgoing _l = Annual mass of non-product outgoing material l removed from EAF (tons).	K-1
K	§98.116(e)(5)	Annual average of the carbon content determinations for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Creducing agent _i = Carbon content in reducing agent i (percent by weight, expressed as a decimal fraction).	K-1
K	§98.116(e)(5)	Annual average of the carbon content determinations for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Celectrode _m = Carbon content of the carbon electrode m (percent by weight, expressed as a decimal fraction).	K-1
K	§98.116(e)(5)	Annual average of the carbon content determinations for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Core _h = Carbon content in ore h (percent by weight, expressed as a decimal fraction).	K-1
K	§98.116(e)(5)	Annual average of the carbon content determinations for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Cflux _j = Carbon content in flux material j (percent by weight, expressed as a decimal fraction).	K-1
K	§98.116(e)(5)	Annual average of the carbon content determinations for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Cproductoutgoing _k = Carbon content in alloy product k . (percent by weight, expressed as a decimal fraction).	K-1
K	§98.116(e)(5)	Annual average of the carbon content determinations for each material included for the calculation of annual process CO ₂ emissions (No CEMS): Cnon-product outgoing _l = Carbon content in non-product outgoing material l (percent by weight, expressed as a decimal fraction).	K-1
N	§98.146(b)(2)	Annual quantity of carbonate based-raw material charged to each continuous glass melting furnace (No CEMS).	N-1

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
N	§98.146(b)(4)	Carbonate-based mineral mass fraction of carbonate-based raw material charged to a furnace.	N-1
N	§98.146(b)(6)	Fraction of calcination for carbonate-based raw material.	N-1
O	§98.156(a)(2)	Loss Factor used to account for the loss of HCFC-22 upstream of the measurement (LF used in equation O-3).	O-3
O	§98.156(a)(7)	Annual mass of the HFC-23 generated (G_{23} in Eq. O-4).	O-4
O	§98.156(a)(8)	Annual mass of any HFC-23 sent off site for sale (S_{23} in Eq. O-4).	O-4
O	§98.156(a)(9)	Annual mass of any HFC-23 sent off site for destruction (OD_{23} used in Eq. O-4).	O-4
O	§98.156(a)(10)	Mass of HFC-23 in storage at the beginning of the year (used to calculate I_{23} , which is used in Eq. O-4).	O-4
O	§98.156(a)(10)	Mass of HFC-23 in storage at the end of the year (used to calculate I_{23} , which is used in Eq. O-4).	O-4
O	§98.156(b)(1) ³	Annual mass of HFC-23 fed into the destruction device (FD used in Eq. O-8 and O-9).	O-8
O	§98.156(b)(1)	Annual mass of HFC-23 fed into the destruction device (FD used in Eq. O-8 and O-9).	O-9
O	§98.156(b)(2) ³	Annual mass of HFC-23 destroyed (D_{23} used in Eq. O-8).	O-8
O	§98.156(d)(1)	If the HFC-23 concentration measured pursuant to §98.154(l) is greater than that measured during the performance test that is the basis for the destruction efficiency (DE), report flow rate of HFC-23 being fed into the destruction device in kg/hr.	Calculation method specified in either § 98.154(l)(1) or § 98.154(l)(2)
O	§98.156(d)(5) ³	If the HFC-23 concentration measured pursuant to §98.154(l) is greater than that measured during the performance test that is the basis for the destruction efficiency (DE), report the destruction efficiency (DE) calculated from paragraphs (d)(1) and (d)(4) of this section.	Calculation method specified in either § 98.154(l)(1) or § 98.154(l)(2)
O	§98.156(e)(1)	(One time report) Destruction efficiency (DE) (by March 31, 2011 or within 60 days of commencing HFC-23 destruction).	O-9
P	§98.166(b)(2)	Monthly consumption of each fuel and feedstock by type used for hydrogen production (No CEMS): gaseous.	P-1
P	§98.166(b)(2)	Monthly consumption of each fuel and feedstock by type used for hydrogen production (No CEMS) (Fdstkn): Liquid.	P-2
P	§98.166(b)(2)	Monthly consumption of each fuel and feedstock by type used for hydrogen production (No CEMS) (Fdstkn): solid.	P-3
P	§98.166(b)(5)	Monthly analyses of carbon content for each fuel and feedstock used in hydrogen production: Gaseous.	P-1
P	§98.166(b)(5)	Monthly analyses of carbon content for each fuel and feedstock used in hydrogen production: Liquid.	P-2
P	§98.166(b)(5)	Monthly analyses of carbon content for each fuel and feedstock used in hydrogen production: Solid.	P-3
P	§98.166(b)(6)	Monthly analyses of the molecular weight of gaseous fuels and feedstocks.	P-1

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Q	§98.176(b) ³	Annual production quantity (in metric tons) for taconite pellets, coke, sinter, iron, and raw steel	Calculation method specified in 98.173(b)(2)(iv) for the site-specific emission factor method and calculation methods in 98.173(b)(1) for the mass balance method
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS) - solid fuel combusted (C _{sf}).	Q-1
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS) -gaseous fuel combusted(C _{gf}).	Q-1
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- liquid fuel combusted (C _{lf}).	Q-1
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- greenball pellets produced (C _o) and other process inputs.	Q-1
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Fired pellets produced (C _p).	Q-1
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - air pollution control residue collected (C _r) and other process outputs.	Q-1
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Iron (C _{iron}) and other process inputs.	Q-2
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Scrap (C _{scrap}).	Q-2
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Flux (C _{flux}).	Q-2
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Carbonaceous material (C _{carbon}).	Q-2
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Steel produced (C _{steel}).	Q-2
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Slag produced (C _{slag}).	Q-2
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Air pollution control residue collected (C _R) and other process outputs.	Q-2
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Coal charged to coke battery (C _{coal}) and other process inputs.	Q-3
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Coke produced by coke battery (C _{coke}).	Q-3
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Air pollution control residue collected from coke battery (C _R) and other process outputs.	Q-3

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Gaseous fuel combusted in the sinter process (C _{gr}).	Q-4
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS) - sinter feed (C _{Feed}) and other process inputs.	Q-4
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - sinter (C _{Sinter}).	Q-4
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Air pollution control residue collected from sinter process (C _R) and other process outputs.	Q-4
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Gaseous fuel (C _{gr}).and Iron (C _{iron}) used in EAF.	Q-5
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Scrap (C _{scrap}) used in EAF.	Q-5
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Flux (C _{flux}) used in EAF.	Q-5
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Carbonaceous material (C _{carbon}) used in EAF.	Q-5
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Electrode consumed in EAF (C _{electrode}) and other process inputs.	Q-5
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Steel produced (C _{steel}) in EAF.	Q-5
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Slag produced (C _{slag}) in EAF.	Q-5
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Air pollution control residue collected (C _R) for EAF and other process outputs.	Q-5
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS) - molten steel before decarburization (C _{steelin}) in EAF and other process inputs.	Q-6
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - molten steel after decarburization (C _{steelout}) in EAF.	Q-6
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Air pollution control residue collected (C _R) for EAF and other process outputs.	Q-6
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS) - Gaseous fuel combusted in the direct reduction furnace (F _g).	Q-7
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS) - iron ore or iron ore pellets fed into the direct reduction furnace (C _{ore}).	Q-7
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS)- Carbonaceous material (C _{carbon}) used in the direct reduction furnace.	Q-7

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Q	§98.176(e)(1)	Carbon content of each process input used to determine CO ₂ emissions (No CEMS) - Other materials charged to the direct reduction furnace (C _{other}).	Q-7
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Iron produced from direct reduction furnace (C _{iron}).	Q-7
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Non-metallic materials produced from direct reduction furnace (C _{NM}) and other process inputs.	Q-7
Q	§98.176(e)(1)	Carbon content of each process output used to determine CO ₂ emissions (No CEMS) - Air pollution control residue collected (C _R) for direct reduction furnace and other process outputs.	Q-7
Q	§98.176(e)(3)	Annual volume of each type of gaseous fuel used to determine CO ₂ emissions (reported separately for each type in standard cubic feet) (No CEMS) - Taconite Indurating Furnace.	Q-1
Q	§98.176(e)(3)	Annual volume of each type of liquid fuel used to determine CO ₂ emissions (reported separately for each type in gallons) (No CEMS) - Taconite Indurating Furnace.	Q-1
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of greenball (taconite) pellets fed into the furnace (O) and other process inputs.	Q-1
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of solid fuel combusted (Fs).	Q-1
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of air pollution control residue (R) and other process outputs.	Q-1
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of fired pellets produced (P).	Q-1
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of molten iron charged to furnace (Iron) and other process inputs.	Q-2
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of scrap charged to the furnace (Scrap).	Q-2
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of flux charged to the furnace (Flux).	Q-2
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of carbon (e.g., coal, coke) charged to furnace (Carbon).	Q-2
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of steel produced (Steel).	Q-2

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of slag produced (Slag).	Q-2
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of air pollution control residue collected (Residue) and other process outputs.	Q-2
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Coal charged to battery (Coal) and other process inputs.	Q-3
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of coke produced (Coke).	Q-3
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of air pollution control residue collected from battery (R) and other process outputs.	Q-3
Q	§98.176(e)(3)	Annual volume of each type of gaseous fuel used to determine CO ₂ emissions (reported separately for each type in standard cubic feet) (No CEMS) - Sinter process (Fg).	Q-4
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of sinter feed material (Feed) and other process inputs.	Q-4
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of sinter Produced (Sinter).	Q-4
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of air pollution control residue collected from sinter process (R) and other process outputs.	Q-4
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of direct reduced iron charged to the EAF (Iron).	Q-5
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of Scrap charged to the EAF(Scrap).	Q-5
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of flux charged to the EAF(Flux).	Q-5
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of carbon electrode consumed in the EAF(Electrode) and other process inputs.	Q-5
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of carbonaceous (coal or coke) material charged to the EAF(Carbon).	Q-5
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS)- Annual mass of steel produced (Steel) in EAF.	Q-5

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of slag produced (Slag) in EAF.	Q-5
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of air pollution control residue collected (Residue) from EAF and other process outputs; and annual volume of each type of gaseous fuel used to determine CO ₂ emissions (reported separately for each type in standard cubic feet) (No CEMS) – each furnace (Fg).	Q-5
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of steel charged to the decarburization vessel (Steel) and other process inputs.	Q-6
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of air pollution control residue collected (Residue) from the decarburization vessel and other process outputs.	Q-6
Q	§98.176(e)(3)	Annual volume of each type of gaseous fuel used to determine CO ₂ emissions (reported separately for each type in standard cubic feet) (No CEMS) - direct reduction furnaces (Fg).	Q-7
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of iron ore or iron ore pellets charged to the direct reduction furnace (Ore).	Q-7
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of carbonaceous (coal or coke) material charged to the direct reduction furnace (Carbon).	Q-7
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of other material charged to the direct reduction furnace (Other).	Q-7
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of iron produced (Iron) in direct reduction furnace.	Q-7
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process input used to determine CO ₂ emissions (No CEMS)- Annual mass of non-metallic materials produced (NM) in direct reduction furnace and other process inputs.	Q-7
Q	§98.176(e)(3)	Annual mass (in metric tons) of each process output used to determine CO ₂ emissions (No CEMS) - Annual mass of air pollution control residue collected (Residue) from the direct reduction furnace and other process outputs.	Q-7
Q	§98.176(e)(4)	Molecular weight of gaseous fuels (No CEMS) - Taconite Indurating Furnace.	Q-1
Q	§98.176(e)(4)	Molecular weight of gaseous fuels (No CEMS) - Sinter Process or Electric Arc Furnace.	Q-4and Q-5
Q	§98.176(e)(4)	Molecular weight of gaseous fuels (No CEMS) - Direct Reduction Furnace.	Q-7

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Q	§98.176(f)(2)	Average hourly feed rate during the test (No CEMS).	No Equation - Used as input in calc. method described in §98.173(b)(2)(iii).
Q	§98.176(f)(2)	Average hourly production rate during the test (No CEMS).	No Equation - Used as input in calc. method described in §98.173(b)(2)(iii).
Q	§98.176(f)(3) ³	Site -specific emission factor (No CEMS).	No Equation - Used as input in calc. method described in §98.173(b)(2)(iv).
Q	§98.176(f)(4)	Annual feed rate used to estimate annual CO ₂ emissions (No CEMS).	No Equation - Used as input in calc. method described in §98.173(b)(2)(iv).
Q	§98.176(f)(4)	Annual production rate used to estimate annual CO ₂ emissions (No CEMS).	No Equation - Used as input in calc. method described in §98.173(b)(2)(iv).
Q	§98.176(g)	The annual amount of coal charged to the coke ovens (in metric tons).	No Equation - Used as input in calc. method described in §98.173(c).
R	§98.186(b)(6)	Annual material quantity used for the calculation of annual process CO ₂ emissions (No CEMS) (Ore = Annual mass of lead ore charged to the smelting furnace (tons).)	R-1
R	§98.186(b)(6)	Annual material quantity used for the calculation of annual process CO ₂ emissions (No CEMS) (Scrap = Annual mass of lead scrap charged to the smelting furnace (tons).)	R-1
R	§98.186(b)(6)	Annual material quantity used for the calculation of annual process CO ₂ emissions (No CEMS) (Flux = Annual mass of flux materials (e.g., limestone, dolomite) charged to the smelting furnace (tons).)	R-1
R	§98.186(b)(6)	Annual material quantity used for the calculation of annual process CO ₂ emissions (No CEMS) (Carbon = Annual mass of carbonaceous materials (e.g., coal, coke) charged to the smelting furnace (tons).)	R-1
R	§98.186(b)(6)	Annual material quantity used for the calculation of annual process CO ₂ emissions (No CEMS) (Other = Annual mass of any other material containing carbon, other than fuel, fed, charged, or otherwise introduced into the smelting furnace (tons).)	R-1
R	§98.186(b)(7)	Annual average of the carbon content determinations for each material used for the calculation of annual process CO ₂ emissions (No CEMS) (CO _{re} = Carbon content of the lead ore, from the carbon analysis results (percent by weight, expressed as a decimal fraction).)	R-1
R	§98.186(b)(7)	Annual average of the carbon content determinations for each material used for the calculation of annual process CO ₂ emissions (No CEMS). (CS _{crap} = Carbon content of the lead scrap, from the carbon analysis (percent by weight, expressed as a decimal fraction).)	R-1

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
R	§98.186(b)(7)	Annual average of the carbon content determinations for each material used for the calculation of annual process CO ₂ emissions (No CEMS). (CFlux= Carbon content of the flux materials, from the carbon analysis (percent by weight, expressed as a decimal fraction).)	R-1
R	§98.186(b)(7)	Annual average of the carbon content determinations for each material used for the calculation of annual process CO ₂ emissions (No CEMS). (CCarbon= Carbon content of the carbonaceous materials, from the carbon analysis (percent by weight, expressed as a decimal fraction).)	R-1
R	§98.186(b)(7)	Annual average of the carbon content determinations for each material used for the calculation of annual process CO ₂ emissions (No CEMS). (COther= Carbon content of the other material from the carbon analysis results (percent by weight, expressed as a decimal fraction).)	R-1
S	§98.196(b)(2) ³	Monthly emission factors for each lime type produced.	S-4
S	§98.196(b)(3) ³	Monthly emission factors for each calcined byproduct/waste by lime type that is sold. (EFLKD,i,n)	S-4
S	§98.196(b)(5)	Monthly results of chemical composition analysis of each type of lime product produced (CaOi,n and MgOi,n) (No CEMS).	S-1
S	§98.196(b)(5)	Monthly results of chemical composition analysis of each type of calcined lime byproduct/waste sold (CaOLKDi,n and MgOLKDi,n) (No CEMS).	S-2
S	§98.196(b)(6)	Annual results of chemical composition analysis of each type of lime byproduct/waste that is not sold (CaOwastei,n and MgOwastei,n) (No CEMS).	S-3
S	§98.196(b)(8) ⁶	Monthly amount of lime product sold, by type (No CEMS).	Calculation method described in §98.194(a)
S	§98.196(b)(10)	Monthly amount of calcined lime byproduct/waste sold, by type (MLKDi,n) (No CEMS).	S-4
S	§98.196(b)(11)	Annual amount of calcined lime byproduct/waste that is not sold, by type (Mwastei) (No CEMS).	S-3
S	§98.196(b)(12)	Monthly weight or mass of each lime type produced (MLIMEi,n) (No CEMS).	S-4
U	§98.216(b)	Annual carbonate consumption by carbonate type.	U-1
U	§98.216(b)	Annual carbonate input by carbonate type.	U-2
U	§98.216(e)(1) ³	Annual carbonate consumption by carbonate type.	U-1
U	§98.216(e)(2)	Annual calcination fractions used in calculations.	U-1
U	§98.216(f)(1) ³	Annual carbonate input by carbonate type.	U-2
U	§98.216(f)(2)	Annual carbonate output by carbonate type.	U-2
V	§98.226(c)	Annual nitric acid production from each nitric acid train (tons, 100% acid basis) (Pt).	V-2
V	§98.226(c)	Annual nitric acid production from each nitric acid train (tons, 100% acid basis) (Pt).	V-3a
V	§98.226(c)	Annual nitric acid production from each nitric acid train (tons, 100% acid basis) (Pt).	V-3b
V	§98.226(c)	Annual nitric acid production from each nitric acid train (tons, 100% acid basis) (Pt).	V-3c

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
V	§98.226(c)	Annual nitric acid production from each nitric acid train (tons, 100% acid basis) (Pt).	V-3d
V	§98.226(d)	Annual nitric acid production during which N ₂ O abatement technology is operating (tons, 100% acid basis).	V-2
V	§98.226(m)(1) ³	Emission factor calculated for each nitric acid train (EFN2Ot).	V-3a
V	§98.226(i)	Abatement technology destruction efficiency (DF).	V-3a
V	§98.226(j) ³	Abatement utilization factor (AF).	V-3a
V	§98.226(m)(1) ³	Emission factor calculated for each nitric acid train (EFN2Ot).	V-3b
V	§98.226(i)	Abatement technology destruction efficiency (DF).	V-3b
V	§98.226(j) ³	Abatement utilization factor (AF).	V-3b
V	§98.226(m)(1) ³	Emission factor calculated for each nitric acid train (EFN2Ot).	V-3c
V	§98.226(i)	Abatement technology destruction efficiency (DF).	V-3c
V	§98.226(j) ³	Abatement utilization factor (AF).	V-3c
V	§98.226(p)	Fraction control factor for each abatement technology (percent of total emissions from the production unit that are sent to the abatement technology) if equation V-3c is used.	V-3c
V	§98.226(m)(1) ³	Emission factor calculated for each nitric acid train (EFN2Ot).	V-3d
V	§98.226(m)(3)	Production rate per test run during performance test for each train.	V-1
V	§98.226(m)(4)	N ₂ O concentration per test run during performance test for each train.	V-1
V	§98.226(m)(5)	Volumetric flow rate per test run during performance test each train	V-1
V	§ 98.226(m)(6) ⁵	Number of test runs during performance test each train.	V-1
X	§ 98.246(a)(4)	Indicate whether you used the alternative to sampling and analysis specified in § 98.243(c)(4).	X-1
X	§98.246(a)(4)	Monthly volume values (used in Equations X-1 to X-3) - Volume of gaseous feedstock i introduced in month "n" ((F _{gf}) _n).	X-1
X	§98.246(a)(4)	Monthly volume values (used in Equations X-1 to X-3) - Volume of gaseous product i produced in month "n" ((P _{gf}) _n).	X-1
X	§98.246(a)(4)	Monthly carbon content values (used in Equations X-1 to X-3) - Average carbon content of the gaseous feedstock i for month "n" ((CC _{gf}) _n).	X-1
X	§98.246(a)(4)	Monthly carbon content values (used in Equations X-1 to X-3) - Average carbon content of the gaseous product i for month "n" ((CC _{gp}) _n).	X-1
X	§98.246(a)(4)	Molecular weights for gaseous feedstocks (used in Equation X-1).	X-1
X	§98.246(a)(4)	Molecular weights for gaseous products (used in Equation X-1).	X-1
X	§98.246(a)(4)	Indicate whether you used the alternative to sampling and analysis specified in § 98.243(c)(4).	X-2
X	§98.246(a)(4)	Monthly volume values (used in Equations X-1 to X-3) - Volume of liquid feedstock i for month "n" ((F _{lf}) _n).	X-2

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
X	§98.246(a)(4)	Monthly volume values (used in Equations X-1 to X-3) - Volume of liquid product i for month "n" ((P _{lp}) _n).	X-2
X	§98.246(a)(4)	Monthly mass values (used in Equations X-1 to X-3) - Mass of liquid feedstock i for month "n" ((F _{lf}) _n).	X-2
X	§98.246(a)(4)	Monthly mass values (used in Equations X-1 to X-3) - Mass of liquid product i for month "n" ((P _{lp}) _n).	X-2
X	§98.246(a)(4)	Monthly carbon content values (used in Equations X-1 to X-3) - Average carbon content of the liquid feedstock i for month "n" ((CC _{lf}) _n).	X-2
X	§98.246(a)(4)	Monthly carbon content values (used in Equations X-1 to X-3) - Average carbon content of the liquid product i for month "n" ((CC _{lp}) _n).	X-2
X	§ 98.246(a)(4)	Indicate whether you used the alternative to sampling and analysis specified in § 98.243(c)(4).	X-3
X	§98.246(a)(4)	Monthly mass values (used in Equations X-1 to X-3) - Mass of solid feedstock i for month "n" ((F _{sf}) _n).	X-3
X	§98.246(a)(4)	Monthly mass values (used in Equations X-1 to X-3) - Mass of solid product i for month "n" ((P _{sp}) _n).	X-3
X	§98.246(a)(4)	Monthly carbon content values (used in Equations X-1 to X-3) - Average carbon content of the solid feedstock i for month "n" ((CC _{sf}) _n).	X-3
X	§98.246(a)(4)	Monthly carbon content values (used in Equations X-1 to X-3) - Average carbon content of the solid product i for month "n" ((CC _{sp}) _n).	X-3
Y	§ 98.256(e)(6) ⁵	If using Equation Y-1a: report the molar volume conversion factor (in scf/g-mole) for each flare.	Y-1a
Y	§ 98.256(e)(7) ⁷	If using Equation Y-1b: report molar volume conversion factor for each flare.	Y-1b
Y	§98.256(e)(7)(ii)	If using Equation Y-1b: report the carbon mole number of each carbon containing compound other than CO ₂ in the flare gas stream for each flare.	Y-1b
Y	§98.256(e)(9)	Annual volume of flare gas combusted during normal operations.	Y-3
Y	§98.256(e)(9)	Annual average higher heating value of the flare gas (normal).	Y-3
Y	§98.256(e)(9)	Volume of gas flared during each SSM event exceeding 500,000 scf/day.	Y-3
Y	§98.256(e)(9)	Average molecular weight of gas flared during each SSM event exceeding 500,000 scf/day.	Y-3
Y	§98.256(e)(9)	Carbon content of the flare gas during each SSM event exceeding 500,000 scf/day.	Y-3
Y	§98.256(e)(9) ⁷	If using Equation Y-3: report the molar volume conversion factor for each flare.	Y-3
Y	§98.256(e)(10) ⁷	Fraction of carbon in the flare gas contributed by methane (used in Equation Y-4).	Y-4
Y	§ 98.256(f)(7) ⁵	If using Equation Y-6: report the molar volume conversion factor.	Y-6
Y	§98.256(f)(10)	Coke burn-off factor.	Y-8
Y	§98.256(f)(10)	Annual throughput of unit.	Y-8
Y	§98.256(f)(10)	Average carbon content of coke.	Y-8

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Y	§98.256(f)(11)	If you use a unit-specific emission factor for CH ₄ : report the unit-specific emission factor for CH ₄ for each catalytic cracking unit, traditional fluid coking unit, and catalytic reforming unit.	Used in method specified in §98.253(c)(4)
Y	§ 98.256(f)(11) ⁵	Units of measure for the unit-specific CH ₄ emission factor.	Used in method specified in §98.253(c)(4)
Y	§98.256(f)(11)	Activity data for calculating emissions (input).	Used in method specified in §98.253(c)(4)
Y	§98.256(f)(11)	Activity data for calculating emissions (product).	Used in method specified in §98.253(c)(4)
Y	§98.256(f)(12)	Activity data for calculating emissions (input).	Used in method specified in §98.253(c)(5)
Y	§98.256(f)(12)	Activity data for calculating emissions (production).	Used in method specified in §98.253(c)(5)
Y	§98.256(f)(12)	If a unit-specific emission factor for N ₂ O was used: report the unit-specific emission factor for N ₂ O each catalytic cracking units, traditional fluid coking units, and catalytic reforming units.	Used in method specified in §98.253(c)(5)
Y	§ 98.256(f)(12) ⁵	Units of measure for the unit-specific N ₂ O emission factor.	Used in method specified in §98.253(c)(5)
Y	§98.256(f)(13)	Average carbon content of coke.	Y-11
Y	§ 98.256(h)(4) ⁷	If Equation Y-12 is used: report the molar volume conversion factor.(onsite and offsite)	Y-12
Y	§98.256(h)(4)	If Equation Y-12 is used: Annual volumetric flow to the sulfur recovery plant. (onsite and offsite)	Y-12
Y	§98.256(h)(4)	If Equation Y-12 is used: Annual average mole fraction of carbon in the sour gas (on or offsite).(onsite and offsite)	Y-12
Y	§98.256(h)(5)	Annual volume of recycled tail gas (onsite only, if used to calculate recycling correction factor).	If a correction for CO ₂ emissions in the tail gas was used in Eq. Y-12, used in method specified in §98.253(f)(5)
Y	§98.256(h)(5)	Annual average mole fraction of carbon in the tail gas (onsite only, if used to calculate recycling correction factor).	If a correction for CO ₂ emissions in the tail gas was used in Eq. Y-12, used in method specified in §98.253(f)(5)
Y	§98.256(i)(5)	If you use Eq. Y-13, report the annual mass of green coke fed to each coke calcining unit	Y-13
Y	§98.256(i)(5)	If you use Eq. Y-13, report the carbon content of green coke fed to each coke calcining unit.	Y-13
Y	§98.256(i)(5)	If you use Eq. Y-13, report the annual mass of marketable coke produced for each coke calcining unit.	Y-13
Y	§98.256(i)(5)	If you use Eq. Y-13, report the carbon content of marketable coke produced for each coke calcining unit.	Y-13

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Y	§98.256(i)(5)	If Equation Y-13 used for coke calcining units: report the annual mass of coke dust removed from the process through dust collection systems.	Y-13
Y	§98.256(i)(7)	For coke calcining: Activity data for calculating emissions (input data).	Used in method specified in §98.253(c)(4)
Y	§98.256(i)(7)	For coke calcining: Activity data for calculating emissions (production data).	Used in method specified in §98.253(c)(4)
Y	§98.256(i)(7)	For coke calcining: The unit-specific CH ₄ emission factor.	Used in method specified in §98.253(c)(4)
Y	§ 98.256(i)(7) ⁵	For coke calcining: Units of measure for the unit-specific CH ₄ emission factor.	Used in method specified in §98.253(c)(4)
Y	§98.256(i)(8)	For coke calcining: If a unit specific emission factor was used for the N ₂ O factor: report the activity data used for calculating emissions (input or production).	Used in method specified in §98.253(c)(5)
Y	§98.256(i)(8)	For coke calcining: If a unit-specific emission factor for N ₂ O was used, report the unit-specific emission factor.	Used in method specified in §98.253(c)(5)
Y	§98.256(i)(8) ⁵	For coke calcining: If a unit specific emission factor was used for the N ₂ O factor: report the units of measure for the unit-specific factor .	Used in method specified in §98.253(c)(5)
Y	§98.256(j)(2)	Quantity of asphalt blown for each asphalt blowing unit.	Y-14
Y	§98.256(j)(2) ³	Quantity of asphalt blown for each asphalt blowing unit.	Y-15
Y	§98.256(j)(2)	Quantity of asphalt blown for each asphalt blowing unit.	Y-16a
Y	§98.256(j)(2)	Quantity of asphalt blown for each asphalt blowing unit.	Y-16b
Y	§98.256(j)(2) ³	Quantity of asphalt blown for each asphalt blowing unit.	Y-17
Y	§98.256(j)(5)	CO ₂ emission factor for each asphalt blowing unit.	Y-14
Y	§98.256(j)(6)	CH ₄ emission factor for each asphalt blowing unit.	Y-15
Y	§98.256(j)(7)	If Equation Y-16 is used: report the carbon emission factor.	Y-16a
Y	§98.256(j)(8)	If Equation Y-16b is used: report the CO ₂ emission factor used.	Y-16b
Y	§98.256(j)(8)	If Equation Y-16b is used: report the carbon emission factor.	Y-16b
Y	§98.256(j)(9)	If you use Eq. Y-17: CH ₄ emission factor.	Y-17
Y	§98.256(k)(3)	For delayed coking units: Dimensions of coke drum or vessel.	Y-18
Y	§98.256(k)(3)	For delayed coking units: Typical gauge pressure of the coking drum when first vented to the atmosphere.	Y-18
Y	§98.256(k)(3)	For delayed coking units: Typical void fraction of coke drum or vessel.	Y-18
Y	§98.256(k)(3)	For delayed coking units: Annual number of coke-cutting cycles of coke drum or vessel.	Y-18
Y	§98.256(k)(3) ⁷	For delayed coking units: report the molar volume conversion factor for each coke drum or vessel.	Y-18
Y	§98.256(k)(4)	For each set of coking drums that are the same dimensions: Height and diameter of the coke drums.	Y-18

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
Y	§98.256(k)(4)	For each set of coking drums that are the same dimensions: Cumulative number of vessel openings for all delayed coking drums in the set.	Y-18
Y	§98.256(k)(4)	For each set of coking drums that are the same dimensions: Typical venting pressure.	Y-18
Y	§98.256(k)(4)	For each set of coking drums that are the same dimensions: Void fraction.	Y-18
Y	§ 98.256(l)(5) ⁷	For each process vent: Molar volume conversion factor.	Y-19
Y	§98.256(m)(3)	Uncontrolled blowdown systems reporting under §98.253 (k): CH ₄ emission factor used.	Y-20
Y	§ 98.256(m)(3) ⁷	Uncontrolled blowdown systems reporting under §98.253 (k): Molar volume conversion factor.	Y-20
Y	§98.256(m)(3)	Uncontrolled blowdown systems reporting under §98.253 (k): Total quantity of crude oil plus the quantity of intermediate products received from off-site that are processed at the facility in the reporting year.	Y-20
Y	§98.256(o)(2)(ii)	Total quantity of crude oil plus the quantity of intermediate products received from off-site that are processed at the facility in the reporting year.	Y-22
Y	§98.256(o)(4)(ii)	For storage tanks that process unstabilized crude oil: Quantity of unstabilized crude oil received during the calendar year.	Y-23
Y	§98.256(o)(4)(iii)	For storage tanks that process unstabilized crude oil: Average pressure differential.	Y-23
Y	§ 98.256(o)(4)(iv) ⁷	For storage tanks that process unstabilized crude oil: Molar volume conversion factor.	Y-23
Y	§98.256(o)(4)(v)	For storage tanks that process unstabilized crude oil: Average Mole fraction of CH ₄ in vent gas from the unstabilized crude oil storage tanks.	Y-23
Y	§98.256(p)(2)	For loading operations: Quantity of materials loaded by vessel type that have an equilibrium vapor-phase concentration of CH ₄ of 0.5 volume percent or greater.	Used in methods specified in AP-42, Section 5.2 (referenced by §98.253(n))
Z	§98.266(f)(5)	Monthly inorganic carbon content of phosphate rock for each wet-process phosphoric acid process line for which Equation Z-1a is used (percent by weight, expressed as decimal fraction) (No CEMS).	Z-1a
Z	§98.266(f)(5)	Monthly CO ₂ (ton CO ₂ /ton of phosphate rock) for which Equation Z-1b is used (No CEMS).	Z-1b
Z	§98.266(f)(6)	Monthly mass of phosphate rock consumed by origin in production.	Z-1a
Z	§98.266(f)(6)	Monthly mass of phosphate rock consumed by origin in production.	Z-1b
AA	§98.276(b)	Annual quantities of fossil fuels used in chemical recovery furnaces.	C-1
AA	§98.276(b)	Annual quantities of fossil fuels used in chemical recovery furnaces.	C-1a
AA	§98.276(b)	Annual quantities of fossil fuels used in chemical recovery furnaces.	C-1b
AA	§98.276(b)	Annual quantities of fossil fuels used in chemical recovery furnaces.	C-2a

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
AA	§98.276(b)	Annual quantities of fossil fuels used in chemical recovery furnaces.	C-3
AA	§98.276(b)	Annual quantities of fossil fuels used in chemical recovery combustion units.	C-4
AA	§98.276(b)	Annual quantities of fossil fuels used in chemical recovery combustion units.	C-5
AA	§98.276(b) ³	Annual quantities of fossil fuels used in chemical recovery combustion units.	C-8
AA	§98.276(b) ³	Annual quantities of fossil fuels used in chemical recovery combustion units.	C-8a
AA	§98.276(b) ³	Annual quantities of fossil fuels used in chemical recovery combustion units.	C-8b
AA	§98.276(b) ³	Annual quantities of fossil fuels used in chemical recovery combustion units.	C-9a
AA	§98.276(c)	Annual mass of the spent liquor solids combusted.	AA-1
AA	§98.276(c)	Annual mass of the spent liquor solids combusted.	AA-2
AA	§98.276(d)	High heat value (HHV) of the spent liquor solids used in Equation AA-1.	AA-1
AA	§98.276(f)	Carbon content of the spent liquor solids used in Equation AA-2.	AA-2
AA	§98.276(g)	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-1
AA	§98.276(g)	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-1a
AA	§98.276(g)	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-1b
AA	§98.276(g)	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-2a
AA	§98.276(g)	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-3
AA	§98.276(g)	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-4
AA	§98.276(g)	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-5
AA	§98.276(g) ³	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-8
AA	§98.276(g) ³	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-8a
AA	§98.276(g) ³	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-8b
AA	§98.276(g) ³	Annual quantities of fossil fuels used in pulp mill lime kilns.	C-9a
AA	§98.276(h)	Make-up quantity of CaCO ₃ used for the reporting year used in Equation AA-3.	AA-3
AA	§98.276(i)	Make-up quantity of Na ₂ CO ₃ used for the reporting year used in Equation AA-3.	AA-3
BB	§98.286(b)(1)	Monthly consumption of petroleum coke (No CEMS).	BB-2
BB	§98.286(b)(4)	Carbon content factor of petroleum coke from the supplier or as measured by the applicable method.	BB-1
BB	§98.286(b)(6) ³	CO ₂ emissions factor for each month.	BB-2
CC	§98.296(b)(5)	Monthly consumption of trona or liquid alkaline feedstock for each manufacturing line (No CEMS) (for facilities using Equation CC-1).	CC-1
CC	§98.296(b)(6)	Monthly production of soda ash for each manufacturing line (tons) (for facilities using Equation CC-2).	CC-2
CC	§98.296(b)(7)	Inorganic carbon content factor of soda ash.	CC-2
CC	§98.296(b)(7)	Inorganic carbon content factor of trona .	CC-1

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
EE	§98.316(b)(6)	Monthly calcined petroleum coke consumption for each production line (No CEMS).	EE-2
EE	§98.316(b)(9)	Monthly carbon content factor of petroleum coke (percent by weight expressed as a decimal fraction) (No CEMS).	EE-2
GG	§98.336(b)(6)	Annual mass of each carbon-containing input material charged to each kiln or furnace (No CEMS) - Mass of zinc bearing material.	GG-1
GG	§98.336(b)(6)	Annual mass of each carbon-containing input material charged to each kiln or furnace (No CEMS) - Annual mass of flux materials (e.g., limestone, dolomite) charged to kiln or furnace "k" (tons).	GG-1
GG	§98.336(b)(6)	Annual mass of each carbon-containing input material charged to each kiln or furnace (No CEMS) - Annual mass of carbon electrode consumed in furnace "k".	GG-1
GG	§98.336(b)(6)	Annual mass of each carbon-containing input material charged to each kiln or furnace (No CEMS) - Annual mass of other carbonaceous material consumed in furnace "k".	GG-1
GG	§98.336(b)(7)	Carbon content of carbon-containing input materials charged to kilns or furnace (including zinc bearing material, flux materials, and other carbonaceous materials) from the annual carbon analysis or from information provided by the material supplier) for each kiln or furnace (percent by weight, expressed as a decimal fraction) (No CEMS) - zinc bearing material.	GG-1
GG	§98.336(b)(7)	Carbon content of carbon-containing input materials charged to kilns or furnace (including zinc bearing material, flux materials, and other carbonaceous materials) from the annual carbon analysis or from information provided by the material supplier) for each kiln or furnace (percent by weight, expressed as a decimal fraction) (No CEMS) - flux materials.	GG-1
GG	§98.336(b)(7)	Carbon content of carbon-containing input materials charged to kilns or furnace (including zinc bearing material, flux materials, and other carbonaceous materials) from the annual carbon analysis or from information provided by the material supplier) for each kiln or furnace (percent by weight, expressed as a decimal fraction) (No CEMS) - other carbonaceous materials.	GG-1
GG	§98.336(b)(10)	Carbon content of the carbon electrodes used in each furnace from the annual carbon analysis or from information provided by the material supplier) (percent by weight, expressed as a decimal fraction) (No CEMS).	GG-1
TT	§98.466(c)(3)(i) ⁵	Total number of years (N) for which disposal and production data are both available.	TT-2
TT	§98.466(c)(3)(ii) ⁵	The waste disposal quantity for each year used in Equation TT-2 of this subpart to calculate the average waste disposal factor (WDF).	TT-2
TT	§98.466(c)(3)(ii)	Quantity of product produced or feedstock entering the process or facility in year from measurement data and/or other company records (production units). You must use the same basis for all years in the calculation (i.e., based on production or based on quantity of feedstock)	TT-2 and TT-3

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
TT	§98.466(c)(3)(iii) ³	Average waste disposal factor (WDF) calculated for the waste stream.	TT-3

¹ These subpart C sources may elect to report this data element rather than use IVT.

² Data element is not required to be entered into IVT because the data element applies to reporting year 2010 only.

³ Data element is not required to be entered into IVT because it is redundant with other inputs being entered into IVT or with data that IVT can calculate based on other data entered into IVT and/or e-GGRT.

⁴ Data element is not required to be entered into IVT because it is not the actual input to the associated equation, though it is very similar to the actual input. For subpart C, this data element is monthly data; whereas the equation input is the same information provided on an annual basis. For Equation F, this data element is annual data; whereas the equation input is the same information provided on a monthly basis. This data element is not required to be entered into IVT because it is redundant to the similar information entered into IVT.

⁵ Data element does not have disclosure concerns, but the data element is not required to be reported or entered into IVT because it is redundant to other inputs being reported or is not useful for data verification and would not inform future GHG policy development in the absence of other data elements included in this table for which we are proposing to remove the reporting requirement due to disclosure concerns.

⁶ Data element is not entered into IVT because it is not the actual input to the associated equation and it is not similar to an actual input to an equation. Further, the EPA has determined that this input is not useful for verification purposes.

⁷ Data element does not have disclosure concerns, but the data element is not required to be reported because it would not be useful to be reported for data verification and would not inform future GHG policy development in the absence of other data elements included in this table for which we are proposing to remove the reporting requirement due to disclosure concerns. However, the data element must be entered into IVT because it is useful for data verification in IVT.

Table 2. List of Data Elements for which Reporting was Deferred to March 31, 2015 that are Not Amended Under the Final Revisions to Part 98 Because They Must Be Reported

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
<p>C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.3(d)(3)(v)</p>	<p>For any facility who submitted an abbreviated emissions report under §98.3(d)(3)(v), any facility operating data or process information used for the GHG emission calculations.</p>	
<p>C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.36(b)(9)(iii)</p>	<p>Estimate of the heat input from each type of fuel listed in Table C-2 that was combusted in the unit during the report year.</p>	<p>C-10</p>

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(c)(2)(ix)	The flue gases from two or more stationary fuel combustion units at a facility are combined together and discharged through a common stack or duct before exiting to the atmosphere and if CEMS are used to continuously monitor CO ₂ mass emissions at the common stack or duct according to the Tier 4 Calculation Methodology, you may report the combined emissions from the units sharing the common stack or duct, in lieu of separately reporting the GHG emissions from the individual units. This monitoring and reporting alternative may also be used when process off-gases or a mixture of combustion products and process gases are combined together in a common stack or duct before exiting to the atmosphere. An estimate of the heat input from each type of fuel listed in Table C-2 combusted during the reporting year.	C-10
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i)	Total quantity of each type of fuel combusted in each unit or group of aggregated units (as applicable) during the reporting year, in short tons for solid fuels, gallons for liquid fuels and standard cubic feet for gaseous fuels, or, if applicable, therms or mmBtu for natural gas.	C-1

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i)	Total quantity of natural gas combusted in each unit or group of aggregated units (as applicable) during the reporting year, in therms per year.	C-1a
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i)	Total quantity of each type of fuel combusted in each unit or group of aggregated units (as applicable) during the reporting year, in short tons for solid fuels, gallons for liquid fuels and standard cubic feet for gaseous fuels, or, if applicable, therms or mmBtu for natural gas.	C-1b

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(i)	Total quantity of each type of fuel combusted in each unit or group of aggregated units (as applicable) during the reporting year, in short tons for solid fuels, gallons for liquid fuels and standard cubic feet for gaseous fuels, or, if applicable, therms or mmBtu for natural gas.	C-8
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ii)(A)	For Tier 2: Total quantity of each type of fuel combusted in the unit or group of aggregated units (as applicable) during each month of the reporting year. Express the quantity of each fuel combusted during the measurement period in short tons for solid fuels, gallons for liquid fuels, and scf for gaseous fuels.	C-2a, C-2b, C-9a

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ii)(C)	High heat values used in the CO ₂ emissions calculations for each fuel combusted during the reporting year. Report a HHV value for each calendar month in which HHV determination is required. If multiple values are obtained in a given month, report the arithmetic average value for the month.	C-2a, C-2b, C-9a
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ii)(D)	If Eq. C-2c is used: Total quantity (i.e., pounds) of steam produced from MSW or solid fuel combustion during each month of the reporting year.	C-2c, C-9b

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ii)(D)	If Eq. C-2c is used: Ratio of the maximum rate heat input capacity to the design rated steam output capacity of the unit.	C-2c, C-9b
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A)	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-13

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A)	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-3 (to calculate annual fuel quantity) and C-2b (method cited in Eq C-3 to calculate annual average carbon content)
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A)	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-4(to calculate annual fuel quantity) and C-2b (method cited in Eq C-4 to calculate annual average carbon content)

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A)	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-5(to calculate annual fuel quantity) and C-2b (method cited in Eq C-5 to calculate annual average carbon content)
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A)	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-8

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A)	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-8a
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(A)	Quantity of each type of fuel combusted in the unit or group of units (as applicable) during each month of the reporting year (Fuel).	C-8b

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(C)	The carbon content used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month. (CC)	C-2b (method cited in Eq C-3 to calculate annual average carbon content, an input to Eq C-3)
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(C)	The carbon content used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month. (CC)	C-2b (method cited in Eq C-4 to calculate annual average carbon content, an input to Eq C-4)

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
<p>C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.36(e)(2)(iv)(C)</p>	<p>The carbon content used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month. (CC)</p>	<p>C-2b (method cited in Eq C-5 to calculate annual average carbon content, an input to Eq C-5)</p>
<p>C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)</p>	<p>§98.36(e)(2)(iv)(C)</p>	<p>Gas molecular weight values used in the emission calculations (including both valid and substitute data values). For each calendar month of the reporting year in which carbon content and, if applicable, molecular weight determination is required, report a value of each parameter. If multiple values of a parameter are obtained in a given month, report the arithmetic average value for the month.</p>	<p>C-2b (method cited in Eq C-5 to calculate annual average carbon content, an input to Eq C-5)</p>

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(iv)(F)	The annual average HHV, when measured HHV data, rather than a default HHV from Table C-1 of this subpart, are used to calculate CH ₄ and N ₂ O emissions for a Tier 3 unit, in accordance with §98.33(c)(1).	C-8
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ix)(D)	For units that combust both fossil fuel and biomass, when biogenic CO ₂ is determined according to §98.33(e)(2), report the carbon-based F-factor used in Equation C-13 of this subpart.	C-13

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ix)(E)	For units that combust both fossil fuel and biomass, when biogenic CO ₂ is determined according to §98.33(e)(2), report the annual average HHV value used in Equation C-13 of this subpart.	C-13
C (Stationary fuel combustion sources that contain at least one combustion unit connected to a fuel-fired electric generator owned or operated by an entity that is subject to regulation of customer billing rates by the public utility commission (PUC) (excluding generators connected to combustion units subject to 40 CFR part 98, subpart D) and that are located at a facility for which the sum of the nameplate capacities for all such electric generators is greater than or equal to 1 megawatt electric output)	§98.36(e)(2)(ix)(F)	For units that combust both fossil fuel and biomass, when biogenic CO ₂ is determined according to §98.33(e)(2), report the total quantity of fossil fuel combusted during the reporting year.	C-13
E	§98.56(g)	Abatement technology destruction efficiency for each abatement technology (DF).	E-3a
E	§98.56(g)	Abatement technology destruction efficiency for each abatement technology (DF).	E-3b
E	§98.56(g)	Abatement technology destruction efficiency for each abatement technology (DF).	E-3c
E	§98.56(h)	Abatement utilization factor for each abatement technology (AF).	E-3a
E	§98.56(h)	Abatement utilization factor for each abatement technology. (AF)	E-3b
E	§98.56(h)	Abatement utilization factor for each abatement technology (AF).	E-3c

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
E	§98.56(j)(4)	N ₂ O concentration per test run during performance test for each unit (CN ₂ O).	E-1
E	§98.56(j)(5)	Volumetric flow rate per test run during performance test for each unit (Q).	E-1
E	§98.56(j)(6)	Number of test runs for each unit (n).	E-1
E	§98.56(l)	Fraction control factor for each abatement technology (percent of total emissions from the production unit that are sent to the abatement technology) if equation E-3c is used. (FC _x)	E-3c
H	§98.86(b)(11)	Quarterly kiln-specific CKD CO ₂ emission factors for each kiln.	H-2
H	§98.86(b)(13)	Name of raw kiln feed or raw material.	
O	§98.156(d)(2)	If the HFC-23 concentration measured pursuant to §98.154(l) is greater than that measured during the performance test that is the basis for the destruction efficiency (DE), report concentration (mass fraction) of HFC-23 at the outlet of the destruction device.	No Equation - Used to calculate Destruction Efficiency
O	§98.156(d)(3)	If the HFC-23 concentration measured pursuant to §98.154(l) is greater than that measured during the performance test that is the basis for the destruction efficiency (DE), report flow rate at the outlet of the destruction device in kg/hr.	No Equation - Used to calculate Destruction Efficiency
O	§98.156(d)(4)	If the HFC-23 concentration measured pursuant to §98.154(l) is greater than that measured during the performance test that is the basis for the destruction efficiency (DE), report emission rate (in kg/hour) calculated from the paragraphs (d)(2) and (d)(3) of this section.	No Equation - Used to calculate Destruction Efficiency
Q	§98.176(f)(1)	Measured average hourly CO ₂ emission rate during the test (No CEMS).	No Equation - Used as input to method described in §98.173(b)(2)(iii).
W	98.236(c)(1)(i)	Actual count of natural gas pneumatic high bleed devices.	W-1
W	98.236(c)(1)(i)	Estimated count of natural gas pneumatic high bleed devices.	W-1
W	98.236(c)(1)(ii)	Actual count of natural gas pneumatic low bleed devices.	W-1
W	98.236(c)(1)(ii)	Estimated count of natural gas pneumatic low bleed devices.	W-1
W	98.236(c)(1)(iii)	Actual count of natural gas pneumatic intermittent bleed devices.	W-1
W	98.236(c)(1)(iii)	Estimated count of natural gas pneumatic intermittent bleed devices.	W-1
W	98.236(c)(2)(i)	Count of natural gas driven pneumatic pumps.	W-2
W	98.236(c)(3)(i)	Total throughput of each acid gas removal unit using a meter or engineering estimate based on process knowledge or best available data.	W-3
W	98.236(c)(3)(ii)	For Calculation Methodology 2 of §98.233(d), annual average fraction of CO ₂ content in the vent from each acid gas removal unit.	W-3
W	98.236(c)(3)(iii)	For Calculation Methodology 3 of §98.233(d), annual average volume fraction of CO ₂ content of natural gas into each acid gas removal unit.	W-4A
W	98.236(c)(3)(iii)	For Calculation Methodology 3 of §98.233(d), annual average volume fraction of CO ₂ content of natural gas into each acid gas removal unit.	W-4B

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
W	98.236(c)(3)(iii)	For Calculation Methodology 3 of §98.233(d), annual average volume fraction of CO ₂ content of natural gas out of each acid gas removal unit.	W-4A
W	98.236(c)(3)(iii)	For Calculation Methodology 3 of §98.233(d), annual average volume fraction of CO ₂ content of natural gas out of each acid gas removal unit.	W-4B
W	98.236(c)(3)(iv)	Annual quantity of CO ₂ , that was recovered from each acid gas removal unit and transferred outside the facility (metric tons CO ₂ e), under subpart PP of this part.	98.233(d)(11)
W	98.236(c)(4)(i)(A)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Glycol dehydrator feed natural gas flow rate in MMscfd, determined by engineering estimate based on best available data.	Methodology 1
W	98.236(c)(4)(i)(B)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Glycol dehydrator absorbent circulation pump type.	Methodology 1
W	98.236(c)(4)(i)(C)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Report whether stripper gas is used in glycol dehydrator.	Methodology 1
W	98.236(c)(4)(i)(D)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Report whether a flash tank separator is used in glycol dehydrator.	Methodology 1
W	98.236(c)(4)(i)(E)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Report type of absorbent.	Methodology 1
W	98.236(c)(4)(i)(F)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Total time the glycol dehydrator is operating in hours.	Methodology 1
W	98.236(c)(4)(i)(G)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Temperature of the wet natural gas (degrees Fahrenheit).	Methodology 1
W	98.236(c)(4)(i)(G)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Pressure of the wet natural gas (psig).	Methodology 1
W	98.236(c)(4)(i)(H)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Concentration of CO ₂ in wet natural gas.	Methodology 1
W	98.236(c)(4)(i)(H)	For each glycol dehydrator with throughput greater than or equal to 0.4 MMscfd: Concentration of CH ₄ in wet natural gas.	Methodology 1
W	98.236(c)(4)(ii)(A)	For all glycol dehydrator with throughput less than 0.4 MMscfd: Count of glycol dehydrators.	W-5
W	98.236(c)(5)(i)(D)	For well venting for liquids unloading, for Calculation Methodology 1, report the following by each tubing diameter group and pressure group combination within each sub-basin category: Average flow rate of the measured well venting (cubic feet per hour).	W-7
W	98.236(c)(5)(ii)(C)	For well venting for liquids unloading, for Calculation Methodologies 2 and 3, report the following for each sub-basin category: Cumulative number of unloadings vented to the atmosphere.	W-8
W	98.236(c)(5)(ii)(C)	For well venting for liquids unloading, for Calculation Methodologies 2 and 3, report the following for each sub-basin category: Cumulative number of unloadings vented to the atmosphere.	W-9

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
W	98.236(c)(6)(i)(B) ¹	For well completions and workovers with hydraulic fracturing, report the following for each sub-basin and well type (horizontal or vertical) combination: When using Equation W-10A, measured flow rate of backflow during well completion (cubic feet per hour).	W-10A
W	98.236(c)(6)(i)(D) ¹	For well completions and workovers with hydraulic fracturing, report the following for each sub-basin and well type (horizontal or vertical) combination: When using Equation W-10A, measured flow rate of backflow during well workover (cubic feet per hour).	W-12
W	98.236(c)(6)(i)(E) ¹	For well completions and workovers with hydraulic fracturing, report the following for each sub-basin and well type (horizontal or vertical) combination: When using Equation W-10A, total number of days of backflow from all wells during completions.	W-10A
W	98.236(c)(6)(i)(F) ¹	For well completions and workovers with hydraulic fracturing, report the following for each sub-basin and well type (horizontal or vertical) combination: When using Equation W-10A, total number of days of backflow from all wells during workovers.	W-10A
W	98.236(c)(6)(i)(G)	For well completions and workovers with hydraulic fracturing, report the following for each sub-basin and well type (horizontal or vertical) combination: The amount of gas recovered to sales using engineering estimate based on best available data.	W-10A
W	98.236(c)(6)(i)(H)	For well workovers with hydraulic fracturing, report the following for each sub-basin and well type (horizontal or vertical) combination: The amount of gas recovered to sales using engineering estimate based on best available data.	W-10A
W	98.236(c)(6)(ii)(A)	For well completions and workovers without hydraulic fracturing, report the following for each sub-basin and well type (horizontal or vertical) combination: Total count of completions in calendar year.	W-13
W	98.236(c)(6)(ii)(B)	For well completions and workovers without hydraulic fracturing, report the following for each sub-basin and well type (horizontal or vertical) combination: Total count of workovers in calendar year that flare gas or vent gas to the atmosphere.	W-13
W	98.236(c)(7)(i)(A)	For blowdown vent stack emission source, for each unique physical volume that is blown down more than once during the calendar year: Total number of blowdowns for each unique physical volume in the calendar year. (when using Eq. W-14A)	W-14A
W	98.236(c)(8)(i)(F) ¹	For wellhead gas-liquid separator with oil throughput greater than or equal to 10 barrels per day, using Calculation Methodology 1 and 2 of 40 CFR 98.233(j), report by sub-basin category: Total volume of oil from all wellhead separators sent to tank(s) in barrels per year.	Methodology 1 (see 98.236j2)
W	98.236(c)(8)(i)(F)	For wellhead gas-liquid separator with oil throughput greater than or equal to 10 barrels per day, using Calculation Methodology 1 and 2 of 40 CFR 98.233(j), report by sub-basin category: Total volume of oil from all wellhead separators sent to tank(s) in barrels per year.	Methodology 2 (see 98.233j1)
W	98.236(c)(8)(i)(K)	For wellhead gas-liquid separator with oil throughput greater than or equal to 10 barrels per day, using Calculation Methodology 1 of 40 CFR 98.233(j), report by sub-basin category: Annual CO ₂ gas quantities that were recovered (metric tons CO ₂ e), for all wellhead gas-liquid separators or storage tanks using Calculation Methodology 1 of §98.233(j).	98.233(j)(6)(i)

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
W	98.236(c)(8)(ii)(A) ¹	For wells with oil production greater than or equal to 10 barrels per day, using Calculation Methodology 3 and 4 of 40 CFR 98.233(j), report the following by sub-basin category: Total volume of sales oil from all wells (barrels per year).	Methodology 3 and 4 (see 98.233(j)(3) and (j)(4))
W	98.236(c)(8)(ii)(H)	For wells with oil production greater than or equal to 10 barrels per day, using Calculation Methodology 3 and 4 of 40 CFR 98.233(j), report the following by sub-basin category: Annual CO ₂ gas quantities that were recovered (metric tons CO ₂ e), for Calculation Methodology 3 or 4 of §98.233(j).	98.233(j)(6)(i)
W	98.236(c)(8)(iii)(A)	For wellhead gas-liquid separators and wells with throughput less than 10 barrels per day, using Calculation Methodology 5 of 40 CFR 98.233(j) Equation W-15 of 40 CFR 98.233: Number of wellhead separators.	W-15
W	98.236(c)(8)(iii)(B)	For wellhead gas-liquid separators and wells with throughput less than 10 barrels per day, using Calculation Methodology 5 of 40 CFR 98.233(j) Equation W-15 of 40 CFR 98.233: Number of wells without wellhead separators.	W-15
W	98.236(c)(8)(iii)(G)	For wellhead gas-liquid separators and wells with throughput less than 10 barrels per day, using Calculation Methodology 5 of 40 CFR 98.233(j) Equation W-15 of 40 CFR 98.233: Annual CO ₂ gas quantities that were recovered (metric tons CO ₂ e), at the sub-basin level for Calculation Methodology 5 of §98.233(j).	98.233(j)(6)(i)
W	98.236(c)(12)(ii)	For flare stacks: Volume of gas sent to flare (cubic feet per year).	W-19
W	98.236(c)(12)(ii)	For flare stacks: Volume of gas sent to flare (cubic feet per year).	W-20
W	98.236(c)(12)(ii)	For flare stacks: Volume of gas sent to flare (cubic feet per year).	W-21
W	98.236(c)(12)(v)	For flare stacks: Flare combustion efficiency.	W-19
W	98.236(c)(12)(v)	For flare stacks: Flare combustion efficiency.	W-21
W	98.236(c)(13)(i)(E)	For compressors with wet seals in operational mode: Reporter emission factor for wet seal oil degassing vents in cubic feet per hour (refer to Equation W-24 of 40 CFR 98.233).	W-23
W	98.236(c)(13)(i)(F)	For compressors with wet seals in operational mode: Total time the compressor is operating (hours).	W-22
W	98.236(c)(13)(i)(F)	For compressors with wet seals in operational mode: Total time the compressor is operating (hours).	W-23
W	98.236(c)(13)(ii)(A)	For wet and dry seal centrifugal compressors in operating mode: Total time the compressor is in operating mode (hours).	W-23
W	98.236(c)(13)(ii)(B)	For wet and dry seal centrifugal compressors in operating mode: Reporter emission factor for blowdown vents (cubic feet per hour).	W-23
W	98.236(c)(13)(iii)(A)	For wet and dry seal centrifugal compressors: Total time the compressor is in shutdown, depressurized mode (hours).	W-22
W	98.236(c)(13)(iii)(A)	For wet and dry seal centrifugal compressors: Total time the compressor is in shutdown, depressurized mode (hours).	W-23
W	98.236(c)(13)(iii)(B)	For wet and dry seal centrifugal compressors: Reporter emission factor for isolation valve emissions in shutdown, depressurized mode (cubic feet per hour).	W-23
W	98.236(c)(13)(v)(A)	For centrifugal compressors in onshore petroleum and natural gas production: Count of compressors.	W-25
W	98.236(c)(14)(i)(B)	For reciprocating compressors rod packing emissions with or without a vent in operating mode: Total time the reciprocating compressor is in operating mode (hours).	W-26

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
W	98.236(c)(14)(i)(B)	For reciprocating compressors rod packing emissions with or without a vent in operating mode: Total time the reciprocating compressor is in operating mode (hours).	W-27
W	98.236(c)(14)(ii)(A)	For reciprocating compressors blowdown vents not manifold to rod packing vents, in operating and standby pressurized mode: Total time the compressor is in standby, pressurized mode (hours).	W-26
W	98.236(c)(14)(ii)(A)	For reciprocating compressors blowdown vents not manifold to rod packing vents, in operating and standby pressurized mode: Total time the compressor is in standby, pressurized mode (hours).	W-27
W	98.236(c)(14)(ii)(B)	For reciprocating compressors blowdown vents not manifold to rod packing vents, in operating and standby pressurized mode: Emission factor for blowdown vents (cubic feet per hour).	W-27
W	98.236(c)(14)(iii)(A)	For reciprocating compressors: Total time the compressor is in not operating, depressurized mode.	W-26
W	98.236(c)(14)(iii)(A)	For reciprocating compressors: Total time the compressor is in not operating, depressurized mode.	W-27
W	98.236(c)(14)(iii)(B)	For reciprocating compressors: Reporter emission factor for isolation valve emissions in not operating, depressurized mode.	W-27
W	98.236(c)(14)(v)(A)	For reciprocating compressors in onshore petroleum and natural gas production: Count of compressors.	W-29
W	98.236(c)(15)(ii)(A)	For equipment leaks calculated using population counts and factors (refer to §98.233(r)), report the following: For source categories 40 CFR 98.230(a)(4), (a)(5), (a)(6), (a)(7), and (a)(8) total count for each type of leak source in Tables W-2, W-3, W-4, W-5, and W-6 of this subpart for which there is a population emission factor, listed by major heading and component type.	W-31
W	98.236(c)(15)(ii)(B)	For equipment leaks calculated using population counts and factors (refer to §98.233(r)), report the following: For equipment leaks calculated using population counts and factors: For onshore production (refer to 40 CFR 98.230 paragraph (a)(2)), total count for each type of major equipment in Table W-1B and Table W-1C of this subpart, by sub-basin category.	W-31
W	98.236(c)(16)(viii)	For local distribution companies: Leak factor for meter/regulator run developed in Equation W-32 of §98.233.	W-31
W	98.236(c)(16)(ix)	For local distribution companies: Number of miles of unprotected steel distribution mains.	W-31
W	98.236(c)(16)(x)	For local distribution companies: Number of miles of protected steel distribution mains.	W-31
W	98.236(c)(16)(xi)	For local distribution companies: Number of miles of plastic distribution mains.	W-31
W	98.236(c)(16)(xii)	For local distribution companies: Number of miles of cast iron distribution mains.	W-31
W	98.236(c)(16)(xiii)	For local distribution companies: Number of unprotected steel distribution services.	W-31
W	98.236(c)(16)(xiv)	For local distribution companies: Number of protected steel distribution services.	W-31
W	98.236(c)(16)(xv)	For local distribution companies: Number of plastic distribution services.	W-31
W	98.236(c)(16)(xvi)	For local distribution companies: Number of copper distribution services.	W-31
W	98.236(c)(17)(ii)	For each EOR injection pump blowdown: Volume of critical phase gas between isolation valves.	W-37

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
W	98.236(c)(17)(iii)	For each EOR injection pump blowdown: Number of blowdowns per year.	W-37
W	98.236(c)(17)(iv)	For each EOR injection pump blowdown: Critical phase EOR injection gas density.	W-37
W	98.236(c)(18)(i)	For EOR hydrocarbon liquids dissolved CO ₂ for each sub-basin category: Volume of crude oil produced (barrels per year).	W-38
W	98.236(c)(18)(ii)	For EOR hydrocarbon liquids dissolved CO ₂ for each sub-basin category: Amount of CO ₂ retained in hydrocarbon liquids (metric tons per barrel), under standard conditions.	W-38
W	98.236(c)(19)(iv)	For onshore petroleum and natural gas production and natural gas distribution combustion emissions: Cumulative volume of fuel combusted in external fuel combustion units with a rated heat capacity larger than 5 mmBtu/hr, by fuel type.	W-39A
W	98.236(c)(19)(iv)	For onshore petroleum and natural gas production and natural gas distribution combustion emissions: Cumulative volume of fuel combusted in external fuel combustion units with a rated heat capacity larger than 5 mmBtu/hr, by fuel type.	W-39B
W	98.236(c)(19)(iv)	For onshore petroleum and natural gas production and natural gas distribution combustion emissions: Cumulative volume of fuel combusted in external fuel combustion units with a rated heat capacity larger than 5 mmBtu/hr, by fuel type.	W-40
W	98.236(c)(19)(vii)	For onshore petroleum and natural gas production and natural gas distribution combustion emissions: Cumulative volume of fuel combusted in internal combustion units with a rated heat capacity larger than 1 mmBtu/hr or 130 horsepower, by fuel type.	W-39A
W	98.236(c)(19)(vii)	For onshore petroleum and natural gas production and natural gas distribution combustion emissions: Cumulative volume of fuel combusted in internal combustion units with a rated heat capacity larger than 1 mmBtu/hr or 130 horsepower, by fuel type.	W-39B
W	98.236(c)(19)(vii)	For onshore petroleum and natural gas production and natural gas distribution combustion emissions: Cumulative volume of fuel combusted in internal combustion units with a rated heat capacity larger than 1 mmBtu/hr or 130 horsepower, by fuel type.	W-40
Y	§98.256(h)(5)(i)	Value of the correction.	If a correction for CO ₂ emissions in the tail gas was used in Eq. Y-12, used in method specified in §98.253(f)(5)
Y	§98.256(k)(4)	For delayed coking units: Mole fraction of methane in coking gas.	Y-18
Y	§98.256(n)(3)	For equipment leaks: Number of each type of emission source listed in Equation Y-21 (if using Eq. Y-21).	Y-21
Y	§98.256(o)(4)(vi)	If you did not use Equation Y-23: report the gas generation volume (scf/year) used to estimate cumulative CH ₄ emissions for storage tanks used to process unstabilized crude oil.	Used in methods specified in §98.253(m)(2)
Y	§98.256(o)(4)(vi)	If you did not use Equation Y-23: report the tank-specific methane composition data used to estimate cumulative CH ₄ emissions for storage tanks used to process unstabilized crude oil.	Used in methods specified in §98.253(m)(2)
AA	§98.276(e)	Default emission factor for CO ₂ used in equation AA-1.	AA-1
AA	§98.276(e)	Default emission factor for CH ₄ used in equation AA-1.	AA-1
AA	§98.276(e)	Default emission factor for N ₂ O used in equation AA-1.	AA-1

Subpart	Rule Citation in 40 CFR Part 98	Data Element Description	Data Element is used as Input to Equation . . .
CC	§98.296(b)(10)(i)	Stack gas volumetric flow rate during performance test (dscfm) for each manufacturing line or stack.	CC-3
CC	§98.296(b)(10)(ii)	Hourly CO ₂ concentration during performance test (percent CO ₂) for each manufacturing line or stack.	CC-3
CC	§98.296(b)(10)(iii)	CO ₂ emission factor of process vent flow from mine water for each manufacturing line or stack.	CC-5
CC	§98.296(b)(10)(iv)	CO ₂ emission mass emission rate during performance test (metric tons/hour) for each manufacturing line or stack.	CC-4
CC	§98.296(b)(10)(v)	Average process vent flow from mine water stripper/evaporator during performance test for each manufacturing line or stack.	CC-4
CC	§98.296(b)(10)(vi)	Annual process vent flow rate from mine stripper/evaporator for each manufacturing line or stack.	CC-5
II	§98.356(d)(2)	Cumulative volumetric biogas flow for each week that biogas is collected for destruction (if using weekly sampling).	II-4
II	§98.356(d)(3)	Weekly average CH ₄ concentration for each week that biogas is collected for destruction (if using weekly sampling).	II-4
II	§98.356(d)(4)	Weekly average temperature at which flow is measured for biogas collected for destruction (if using weekly sampling).	II-4
II	§98.356(d)(5)	Weekly average moisture content for each week at which flow is measured for biogas collected for destruction (if using weekly sampling).	II-4
II	§98.356(d)(6)	Weekly average pressure for each week at which flow is measured for biogas collected for destruction (if using weekly sampling).	II-4

¹The EPA is providing an option for Subpart W reporters to delay reporting of this data element for two reporting years in specific situations. Refer to section III.A.3 of the preamble to this action for further discussion on this topic.