

## Course 1.2, Handout # 1.2.1 Minimal Allowable Methods (Tiers) under §95115<sup>1</sup>

For facilities that qualify for abbreviated reporting under section 95103(a), they may use any method in 40 CFR 98.33(a) to calculate GHG emissions.

Combustion Unit Size	Additional Requirement(s)	Minimum Allowable Tier <sup>a</sup> [Reference]
<b>MSW</b>		
> 600 tons MSW/day	<ul style="list-style-type: none"> <li>Unit has operated more than 1,000 hours in any calendar year since 2005;</li> <li>Unit has existing CEMS, including gas monitors or stack gas volumetric flow rate monitor (or both) required by Federal or State regulation or the unit's operating permit;</li> <li>The CEMS has been certified according to Part 75, part 60, or an applicable state monitoring program; and</li> <li>Facility has established monitoring infrastructure and meets specific QA/QC requirements according to Part 75, part 60, or an applicable state monitoring program.</li> </ul>	4 [§95115(a)]
	<ul style="list-style-type: none"> <li>Unit does not meet conditions above for Tier 4, and produces steam.</li> </ul>	2 [§95115(a)]
	<ul style="list-style-type: none"> <li>Unit does not meet conditions above for Tier 4, and does not produce steam. [It is unlikely that MSW units this size do not produce steam, so it is unlikely that this situation will be found.]</li> </ul>	1
≤ 600 tons MSW/day	<ul style="list-style-type: none"> <li>Unit has operated more than 1,000 hours in any calendar year since 2005;</li> <li>- Unit has existing, certified CO<sub>2</sub> concentration monitor and stack gas volumetric flow rate monitor required by Federal or State regulation or the unit's operating permit; and</li> <li>The CEMS has been certified according to Part 75, part 60, or an applicable state monitoring program; and</li> <li>- Facility has established monitoring infrastructure and meets specific QA/QC requirements according to part 75, part 60, or an applicable state monitoring program.</li> </ul>	4
	Unit does not meet conditions above for Tier 4, and produces steam.	2 [§95115(a)]
	Unit does not meet conditions above for Tier 4 and does not produce steam. (This situation corresponds to a small batch-fed MSW incinerator; these are not likely to be found in a situation requiring verification, and Tier 1 can only be used if the fuel meet the de minimis provisions §95103(i).)	1

<sup>1</sup> <http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/tier-tableflowchart.pdf>

Combustion Unit Size	Additional Requirement(s)	Minimum Allowable Tier <sup>a</sup> [Reference]
<b>Solid Biomass Fuels</b>		
Any size	<ul style="list-style-type: none"> <li>Unit that produces steam, and is not required to use Tier 4.</li> </ul>	2 [\$95115(a)]
	<ul style="list-style-type: none"> <li>Unit that does not produce steam, and is not required to use Tier 4, and the fuel is not subject to a compliance obligation, and is not mixed prior to combustion with a fuel subject to a compliance obligation.</li> </ul>	1
<b>Fossil-based Solid Fuels (e.g., Coal)</b>		
> 250 MMBtu.hr	<ul style="list-style-type: none"> <li>Unit has operated more than 1,000 hours in any calendar year since 2005;</li> <li>Unit has existing CEMS, including gas monitors or stack gas volumetric flow rate monitor (or both) required by Federal or State regulation or the unit's operating permit;</li> <li>The CEMS has been certified according to Part 75, part 60, or an applicable state monitoring program; and</li> <li>Facility has established monitoring infrastructure and meets specific QA/QC requirements according to Part 75, part 60, or an applicable state monitoring program.</li> </ul>	4 [\$95115(a)]
	<ul style="list-style-type: none"> <li>The unit does not meet conditions above to use Tier 4; and</li> <li>The unit produces steam.</li> </ul>	3 [\$95115(a)]
≤ 250 mmBtu/hr	<ul style="list-style-type: none"> <li>Unit has operated more than 1,000 hours in any calendar year since 2005;</li> <li>Unit has existing, certified CO<sub>2</sub> concentration monitor and stack gas volumetric flow rate monitor required by Federal or State regulation or the unit's operating permit; and</li> <li>The CEMS has been certified according to Part 75, part 60, or an applicable state monitoring program; and</li> <li>Facility has established monitoring infrastructure and meets specific QA/QC requirements according to Part 75, part 60, or an applicable state monitoring program.</li> </ul>	4 [\$95115(a)]
	<ul style="list-style-type: none"> <li>The unit does not meet conditions above for Tier 4;</li> <li>The unit produces steam.</li> </ul>	3 [\$95115(a)]
<b>Non-distillate Fuels listed in Table 1 of 95115</b>		
> 250 MMBtu.hr	<i>See the rows for "All other fuels" at the end of this table.</i>	
≤250 MMBtu/hr	<ul style="list-style-type: none"> <li>You routinely perform fuel sampling and analysis for the fuel high heat value (HHV) or routinely receive the results of HHV sampling and analysis from the fuel supplier at the minimum frequency specified in 40 CFR 98.34(a), or at a greater frequency.</li> </ul>	2 [\$95115(c)(1)]

Combustion Unit Size	Additional Requirement(s)	Minimum Allowable Tier <sup>a</sup> [Reference]
	<ul style="list-style-type: none"> <li>You do not meet the conditions above for obtaining HHV data.</li> </ul>	1 [§95115(c)(1)]
<b>Biomass-derived fuels listed in Table C-1 of 40 CFR part 98 subpart C</b>		
Any size	<ul style="list-style-type: none"> <li>Emissions are not subject to a compliance obligation under the cap and trade regulation; and</li> <li>Not mixed prior to combustion with a fuel that has emissions subject to a compliance obligation under the cap and trade regulation.</li> </ul>	1 or 2 [§95115(c)(1)]
<b>Pipeline Quality Natural Gas</b>		
Any size	The annual consumption is <u>not</u> obtained from billing records in units of therms or MMBtus.	2 [§95115(c)(2)]
	The annual consumption is obtained from billing records in units of therms or MMBtus.	1 [§95115(c)(2)]
<b>Distillate Fuels Listed in Table 1 (Kerosene, Kerosene-type jet fuel, Diesel Fuels Nos. 1, 2, and 4, and Fuel Oils Nos. 1, 2, and 4.)</b>		
Any size	The unit does not meet the requirements to use Tier 4	2 [§95115(c)(2)]
<b>Emissions are de minimis under 95103(i)</b> [A portion of GHG emissions representing no more than 3 percent of a facility's total CO <sub>2</sub> equivalent emissions (including emissions from biomass-derived fuels and feedstocks), not to exceed 20,000 metric tons of CO <sub>2</sub> e.]		
Any size	The unit does not meet the requirements to use Tier 4	Any method in 40 CFR 98.33(a) permitted by 98.33(b) [§95115(c)(3)]
<b>A fuel providing less than 10 percent of the annual heat input to a unit &lt;250 MMBtu/hr</b>		
<250 MMBtu/hr	The unit does not meet the requirements to use Tier 4	Any method in 40 CFR 98.33(a) permitted by 40 CFR 98.33(b) [§95115(c)(3)]
<b>All other fuels</b>		
Any size	The unit meets the requirements to use Tier 4 in 40 CFR 98.33(b)(4) and (b)(5).	4 [§95115(c)(4)]
	The unit does not meet the requirements to use Tier 4 in 40 CFR 98.33(b).	3 [§95115(c)(4)]

## Selection of Allowable Methods (Tiers) under §95115

Facilities that qualify for abbreviated reporting under §95103(a) may use any method in 40 CFR 98.33(a) to calculate GHG emissions. For 2012 (and later) emissions reported in 2013 (and later), facilities must follow the tier selection shown here. For 2011 emissions data reported in 2012, reporters may use the methods allowed by 40 CFR 98, subpart C (see §95103(h)), and are not required to follow §95115(a) and (c).

