



Greenhouse Gas Reporting Program

BEST AVAILABLE MONITORING METHODS (BAMM)

During 2010 and 2011, facilities had the option for most source categories to use a best available monitoring method (BAMM) to determine emissions from specific emissions sources for a limited amount of time. The use of BAMM was allowed because it was not always feasible for a newly subjected facility to acquire, install, and operate all of the required monitoring equipment by the date required by the Greenhouse Gas Reporting Program (GHGRP). EPA's BAMM provision provided time for these facilities to adjust to rule requirements while minimizing impacts to normal business operations. This fact sheet answers common questions about BAMM and provides information on the time periods for which BAMM was available to facilities in each reporting source category (see Table 1).

What is BAMM?

A BAMM is a method used by GHGRP reporters for monitoring emissions or process operating parameters that is devised by a reporter as an alternative to using a monitoring method specified by the GHGRP. BAMM can include any of the following methods:

- ▶ Monitoring methods currently used by a facility that do not meet the specifications of the GHGRP;
- ▶ Data available through third parties such as the quantity of fuel received;
- ▶ Engineering calculations; and
- ▶ Other company records.

How are emissions calculated when BAMM is used?

When a facility is approved to use BAMM, it must still use the applicable equations specified by the GHGRP regulations, but may use a different monitoring approach (i.e., BAMM) to determine the inputs to those equations. For example, if inputs to equations are unavailable for one process line, a facility could substitute data from a very similar process line. The facility could also use an industry-accepted or company-wide emission factor or estimate these inputs using available monitoring equipment that does not meet the accuracy requirements specified by the GHGRP.

Is the use of BAMM still allowed?

Most facilities were automatically allowed to use BAMM for periods ranging from 3 months to 12 months from the date of initial applicability. For most source categories, BAMM expired on December 31, 2011 for facilities that began reporting in 2010 or 2011. For a limited number of subparts, facilities were allowed to use BAMM beyond 2011 with EPA approval. To obtain EPA approval to use BAMM beyond the automatic BAMM period, a facility was required to submit a timely BAMM application with the following information:

- ▶ The specific monitoring requirements for which the request applies;
- ▶ Description and documentation of the reasons why the required monitoring equipment could not be installed by the required date;
- ▶ Description of the actions the facility will take to obtain and install the monitoring equipment as soon as reasonably feasible; and
- ▶ Other information required by some subparts.

Table 1 shows the period of time for which BAMM was available for each subpart. As of reporting year 2017, no facilities are approved to use BAMM.¹

¹ Subpart A of Part 98 includes a provision stating that facilities or suppliers that first become subject to any subpart of Part 98 due to an amendment of the global warming potentials (GWPs) may use BAMM for a limited period of time after the GWPs are

Table 1. Best Available Monitoring Methods Provisions

Subpart	Source category	Date monitoring began	Period for automatic BAMM	Deadline to stop using BAMM if an extension granted
All subparts subject to calendar year 2010 reporting: C, D, E, F, G, H, K, N, O, Q, R, S, U, V, Z, AA, BB, EE, GG, HH, LL, MM, NN, OO, PP (see below for subparts P, X, Y)		1/1/2010	1/1/2010 – 3/31/2010	12/31/2010 ²
P	Hydrogen Production	1/1/2010	1/1/2010 – 3/31/2010	12/31/2015 ³
X	Petrochemical Production			
Y	Petroleum Refineries			
Subparts subject to reporting starting in calendar year 2011		1/1/2011	Varies (see below)	Varies (see below) ⁴
I	Electronics Manufacturing	1/1/2011	1/1/2011 – 12/31/2011	12/31/2013
L	Fluorinated Gas Production	1/1/2011	1/1/2011 – 6/30/2011	12/31/2011, unless the facility demonstrated unique or unusual circumstances.
T	Magnesium Production	1/1/2011	None	12/31/2011
W	Petroleum and Natural Gas Systems - Well-related sources - Activity data collection - Acquisition and implementation of leak detection and monitoring equipment or services - Unique or unusual circumstances	1/1/2011	1/1/2011 – 12/31/2011	12/31/2012, unless the facility demonstrated unique or unusual circumstances. ⁵

changed. (See 40 CFR 98.3(l).) Therefore, if the GHGRP amends the GWPs through a rulemaking, the use of BAMM would again be allowed for those facilities for that period of time.

² Extensions not approved beyond 12/31/2010, except for subparts P, X, and Y.

³ Extensions were required to be approved for each year.

⁴ Extensions not approved beyond 12/31/2011, except for subparts I, L, and W.

⁵ These provisions were removed from Part 98 effective 1/1/2015.

Subpart	Source category	Date monitoring began	Period for automatic BAMM	Deadline to stop using BAMM if an extension granted
	- Well-related measurement data from wells not previously measured - Reciprocating compressor blowdown valve, isolation valve, and rod packing venting from manifolded vents	1/1/2015	1/1/2015 – 3/31/2015	12/31/2015
	Monitoring of equation inputs from: - oil well completions and workovers with hydraulic fracturing - onshore petroleum and natural gas gathering and boosting systems segment - transmission pipelines segment	1/1/2016	1/1/2016 – 12/31/2016	No extensions granted past 2016.
DD	Electrical Transmission and Distribution Equipment	1/1/2011	1/1/2011 – 6/30/2011	12/31/2011
FF	Underground Coal Mines	1/1/2011	None	12/31/2011
II	Industrial Wastewater Treatment	1/1/2011	None	12/31/2011
QQ	Imports and Exports of Equipment Pre-charged with Fluorinated GHGs or Containing Fluorinated GHGs in Closed-cell Foams	1/1/2011	1/1/2011 – 6/30/2011	12/31/2011
RR	Geologic Sequestration of Carbon Dioxide	1/1/2011	1/1/2011 – 3/31/2011	12/31/2011
SS	Manufacture of Electric Transmission and Distribution Equipment	1/1/2011	1/1/2011 – 6/30/2011	12/31/2011
TT	Industrial Waste Landfills	1/1/2011	None	12/31/2011
UU	Injection of Carbon Dioxide	1/1/2011	1/1/2011 – 3/31/2011	12/31/2011
Owners or operators of facilities or suppliers that first become subject to any subpart of part 98 due to an amendment to Table A-1 of subpart A, Global Warming Potentials.		1/1 of the year after the year during which the change in GWPs is published.	1/1 to 3/31 of the year after the year during which the change in GWPs is published.	12/31 of the year after the year during which the change in GWPs is published.