

Ontario Air and Noise Best Practices

Topic	Baghouse Emission Calculations	Date: September 27, 2011 Version 1.0
Purpose	To provide guidance on how to apply baghouse emission factors when multiple baghouse exist at a facility	Page 1 of 1

The Ontario Ministry of the Environment's (MOE) "*Procedure for Preparing an Emission Summary and Dispersion Modelling Report, Version 3.0*", dated March 2009 provides guidance on how to assess baghouse emissions (see Table C-1).

An emission factor of 0.01 grains/ft³ of gas or ~20 milligrams/m³ of gas can be assumed for the outlet of a baghouse. Deviations from the above baghouse emission factor can be considered for site-specific situations. For example:

1. The use of validated source testing results;
2. The use of a lower emission factor for all but the largest baghouse;
3. The use of a lower emission factor when facility data suggests that inlet loading to a baghouse is less than 20 mg/m³; and/or
4. The use of lower emission factors when baghouses are used in series.

This Best Practice focuses on the second example; the use of a lower emission factor for all but the largest baghouse.

In October 2007, the MOE made a presentation to the Practitioner's indicating that the baghouse general rule in the MOE's ESDM Procedure Document indicates that the outlet particulate concentration from a baghouse can be assumed to be 20 mg/m³. However, for multiple baghouses the procedure document suggests that an average emission factor of 10 mg/m³ can be used for all but the largest or most significant contributor to the maximum point of impingement (POI) concentration.

Based on the guidance above, the facility must determine how the lower emission factors should be applied. For example, the largest baghouse flow rate may not result in the highest POI due to its location on-site. It is up to the facility to determine how the lower emission factors should be applied in order to yield the most conservative assessment.

If further assistance is required please contact the Best Practices Committee.

References:

Grant, S., "Additional Guidance on Assessing Data Quality for ESDM Reports", Presentation to the Practitioners' Group Meeting –October 4, 2007