

Guidance for Generators of Category AA, A, and B Compost and the Ontario Compost Quality Standards – Foreign Matter
Effective July 1st, 2015

Disclaimer: This document provides operational guidance to accompany the “Ontario Compost Quality Standards” for generators of Category AA, A, and B Compost. The document does not supersede the Environmental Protection Act (EPA), O. Reg. 347 (including Part II in the “Ontario Compost Quality Standards”), or any site approval conditions. Ministry staff have full discretion on compliance actions required based on their knowledge and site specific conditions. If you wish to determine your legal obligations, you are advised to consult the EPA, O. Reg. 347, and Part II of the Ontario Quality Compost Standards and/or consult a lawyer.

Note that a separate guidance document dealing with sharp foreign matter has been developed for the industry.

This document includes:

- Re-Testing Total Foreign Matter
- Foreign Matter that exceeds 25mm per 500 mL sample
- Analysis and Reporting Guidance
- Foreign Matter and Sharp Foreign Matter Schematic

Appendix 1 in the Ontario Compost Quality Standards (Standards) outlines the sample failure policy (re-testing) for metals and pathogens. However, Appendix 1 is silent on foreign matter. This document provides additional guidance on this topic including re-testing considerations.

1.0 Re-Testing Total Foreign Matter

Table 3.3 in Part II of the Standards, Section 3.5 of the Standards outlines the % mass criteria for total foreign matter and plastic:

TABLE 3.3 - Maximum Concentration of Foreign Matter in Compost

| Parameter | Category AA | Category A | Category B |
|-----------------------|--|--|--|
| Foreign matter | Total foreign matter greater than 3 mm shall not exceed 1.0%, calculated on a dry weight basis, and plastic cannot exceed 0.5% | Total foreign matter greater than 3 mm shall not exceed 1.0%, calculated on a dry weight basis, and plastic cannot exceed 0.5% | Total foreign matter greater than 3 mm shall not exceed 2.0%, calculated on a dry weight basis, and plastic cannot exceed 0.5% |

Figure 1: Total Foreign Matter Section in Table 3.3 of Standards

If an initial sample does not meet the Standards in Part II for total foreign matter the facility can consider:

Re-screening and/or re-processing a batch to further remove foreign matter and plastics. After this is performed, the batch would become a “new” batch and would only require 1 initial sample for analysis. Note that the facility may use the duplicate sample for one of the subsequent 4 tests.

or

Re-sampling the batch. Four (4) new composite samples will need to be taken, a minimum of 3 of the 4 subsequent tests will need to meet the category requirements AND the arithmetic mean must be less than the category requirement (for example 0.5% dry weight for plastics) for the batch to pass.

1.1 Foreign Matter that exceeds 25mm per 500mL Sample

Table 3.3 in Part II of the Standards outlines the requirement for foreign matter pieces that exceed 25mm per 500 mL sample of compost:

TABLE 3.3 - Maximum Concentration of Foreign Matter in Compost

| Parameter | Category AA | Category A | Category B |
|----------------|---|---|---|
| Foreign matter | Compost shall not contain any foreign matter greater than 25 mm per 500 ml. | Compost shall not contain any foreign matter greater than 25 mm per 500 ml. | Compost shall not contain any foreign matter greater than 25 mm per 500 ml. |

Figure 2: Foreign Matter that Exceeds 25mm per 500mL Sample

The ministry acknowledges circumstances where non-rigid material greater than 25mm may migrate through processing screens and is difficult to remove. The incidental appearance of non-rigid foreign matter greater than 25mm may be considered as acceptable. Non-rigid materials that exceed 25mm should be considered acceptable include items such as dental floss, fruit stickers, and tea bag strings. It is recommended that facilities document these instances and demonstrate that these materials were non-rigid.

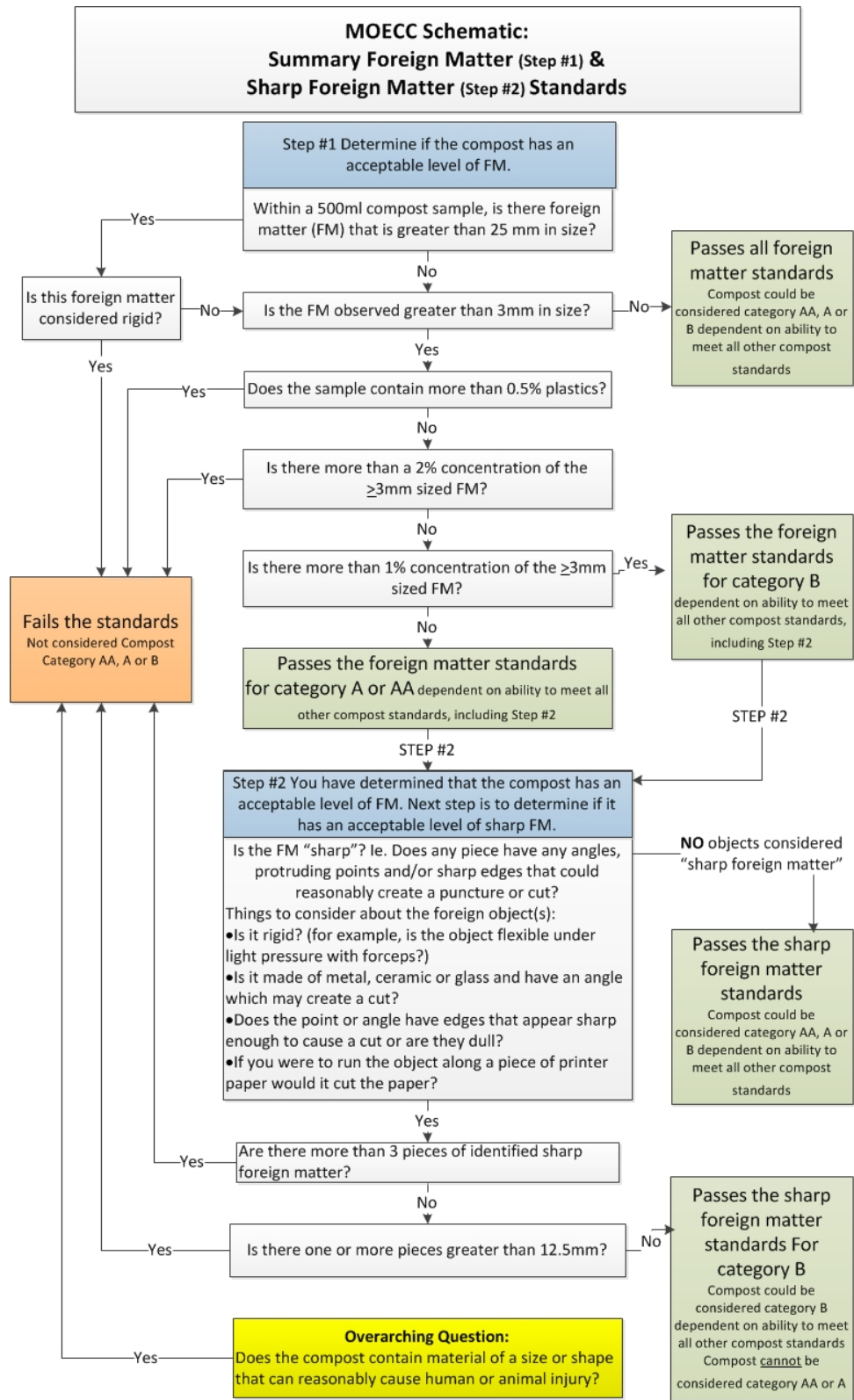
1.2 Analysis and Reporting Guidance

For foreign matter and sharp foreign matter, the ministry recommends laboratories and/or producers analysing compost consider performing the following actions:

1. Use the ministry recommended schematic as an aid when analysing for foreign matter and sharp foreign matter.
2. Document and, when practical, retain the foreign matter and sharp foreign matter collected through analysis for future reference. Pictures of samples containing this material with corresponding lab observations would be acceptable documentation for foreign matter, not sharp foreign matter.

3. Document and, if not already retained in point #2 above, when practical, retain non-rigid foreign matter > 25mm. Pictures of samples containing this material with corresponding lab observations would be acceptable documentation, including a linear scale to illustrate size fraction.

1.3 Foreign Matter and Sharp Foreign Matter Schematic



Summary

Small

Less than or equal to 3mm – Acceptable

Medium

| 3mm-----25mm |

- No angles (will not reasonably cause harm) – Acceptable
- Angles, but flexible (will not reasonably cause harm) – Acceptable
- Angles, not flexible (may reasonably cause harm), maximum of 3 pieces of sharp foreign matter per 500ml sample **AND** no sharp foreign matter exceeding 12.5mm – Acceptable for Category B
- Angles, not flexible (may reasonably cause harm), larger than 12.5mm – NOT acceptable

Large

| bigger than 25mm----- | - Not Acceptable, however consider if the material is non-rigid and difficult to screen out it may be considered acceptable.

All other compost standards can be found in **Part II in the “Ontario Compost Quality Standards”**

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Figure 3: Foreign Matter and Sharp Foreign Matter Schematic