**Section 738.121 Required Information to Support Petitions**

a) Information submitted in support of a Section 738.120 petition must meet the following requirements:

1) All data from waste analyses and any new testing performed by the petitioner must be approved by the Board and must provide data that are accurate, reproducible, and performed in accordance with quality assurance standards;

2) The following must be true with regard to estimation and monitoring techniques and the identification of applicable existing USEPA-certified test protocols:

A) All estimation and monitoring techniques must be approved by the Board; and

B) The petition must identify all applicable USEPA-certified test protocols in existence at the time the estimation and monitoring was performed;

3) Predictive models must have been verified and validated, must be appropriate for the specific site, waste streams, and injection conditions of the operation, and they must be calibrated for existing sites where sufficient data are available;

4) A quality assurance and quality control plan addressing all aspects of the demonstration must be provided to and approved by the Board;

5) Reasonably conservative values must be used whenever values taken from the literature or estimated on the basis of known information are used instead of site-specific measurements; and

6) An analysis must be performed to identify and assess aspects of the demonstration that contribute significantly to uncertainty. The petitioner must conduct a sensitivity analysis to determine the effect that significant uncertainty may contribute to the demonstration. The demonstration must then be based on conservative assumptions identified in the analysis.

b) Any petitioner under Section 738.120(a)(1)(A) must provide sufficient site-specific information to support the demonstration, such as the following:

1) The thickness, porosity, permeability and extent of the various strata in the injection zone;

2) The thickness, porosity, permeability, extent and continuity of the confining zone;

3) The hydraulic gradient in the injection zone;

4) The hydrostatic pressure in the injection zone; and

5) The geochemical conditions of the site.

c) In addition to the information in subsection (b), any petitioner under Section 738.120(a)(1)(B) must provide sufficient waste-specific information to ensure reasonably reliable predictions about the waste transformation. The petitioner must provide the information necessary to support the demonstration, such as the following:

1) A description of the chemical processes or other means that will lead to waste transformation; and

2) Results of laboratory experiments verifying the waste transformation.

BOARD NOTE: Derived from 40 CFR 148.21 (2017).

(Source: Amended at 42 Ill. Reg. 25244, effective November 19, 2018)