

(A) For all engineered components at the industrial facility, the owner or operator shall demonstrate the following through a construction certification report:

- (1) Compliance with the industrial facility design in the permit to install.
- (2) Engineered components were installed in a manner that did not damage the engineered component or other engineered components.

(B) The construction certification report shall be prepared, signed, and sealed by a professional engineer and other professionals skilled in the appropriate discipline and submitted to Ohio EPA. The owner or operator of an industrial solid waste landfill shall also submit the report to the approved board of health. Copies of the daily construction activity logs shall be kept at the industrial facility and, upon request, shall be made available to Ohio EPA.

(C) Every construction certification report shall include the following:

- (1) A narrative section that identifies the engineering components that were constructed during the construction event and includes the following:
 - (a) A comparison of the constructed components to the design and any material or construction specifications in the approved permit to install and to the material and construction specifications in rules 3745-525-502 to 3745-525-569 of the Administrative Code.
 - (b) A summary of how construction was impacted by weather and equipment limitations and any other difficulties encountered.
 - (c) A description of measures undertaken to ensure that engineered components were not damaged during construction due to desiccation, freeze/thaw cycles, wet/dry cycles, intrusion of objects, and construction activities.
- (2) All alterations, alternatives, and other changes that relate to the installation of any of the components to be certified, presented as follows:
 - (a) A listing of all alterations and alternatives previously concurred with by Ohio EPA.
 - (b) All alteration requests and supporting documentation which are proposed for concurrence. The alteration request shall be equivalent to or more protective than the approved permit to install.

(3) A description of the experience, training, responsibilities in decision making, and other qualifications of the personnel that provided construction oversight and conducted all of the testing on the engineered components for which the certification report is submitted.

(4) A notarized statement, signed in accordance with rule 3745-500-02 of the Administrative Code.

(D) The construction certification report shall include the following for the construction of any engineered component or group of components, as appropriate:

(1) Results of all observations, testing, and calculations necessary to comply with paragraph (A) of this rule and the additional certification requirements in rules 3745-525-511 to 3745-525-569 of the Administrative Code.

(2) Results of all surveys. At a minimum, survey data shall be reported in a table with the northing and easting for each designated survey point established to be no more than one hundred feet apart. The northings and eastings shall be based on the grid system established in the approved permit to install in accordance with paragraph (E)(9) of rule 3745-525-410 of the Administrative Code. If the permit to install does not establish a grid system, the owner or operator shall establish a grid system for the purposes of construction certification. Additional points should be established at grade breaks and other critical locations. Survey data in the table shall present the following:

(a) A comparison of the basal elevations of the recompacted soil liner to the basal elevations approved in the permit to install.

(b) A comparison of the basal elevations, top elevations, and thickness of the following constructed engineering components to the basal elevations, top elevations, and thickness approved in the permit to install:

(i) Added geologic material.

(ii) The recompacted soil liner.

(iii) The leachate collection layer.

(iv) The separatory leachate barrier layer.

(v) The separatory leachate collection layer.

(vi) The cap soil barrier layer.

(vii) The cap drainage layer.

(viii) The cap protection layer.

(3) Record drawings showing the following:

(a) Plan views with topographic representation of the elevations of the top of recompacted soil liner and the location of any berms and leachate collection pipes with inverts noted.

(b) Plan views with topographic representation of the elevations of the top of the separatory leachate barrier layer and the location of any berms and leachate collection pipes with inverts noted.

(c) Plan views with topographic representation of the horizontal limits of all disposed industrial waste and the top elevations of the cap system and surface water control structures, including permanent ditches to control run-on and runoff, sediment and storm water management basins including the inlet and outlet, and any permanent or temporary ground water control structures.

(d) Plan view of the tie-in area.

(e) Plan view of the deployment of the flexible membrane liner panels and the location and identification of the destructive tests and all repairs.

(f) The location and as-built detail drawings of all components to be certified using the same views as required in paragraph (H) of rule 3745-525-410 of the Administrative Code.

(g) If the certification report is submitted for the cap system, cross sections showing the top elevations of the disposed industrial waste, top elevation of the cap system, and the elevations of the surface water management system. The cross sections shall be taken at the same locations and using the same scale as in the approved permit to install.

(4) Evidence that the flexible membrane liner, leachate collection pipe, leachate conveyance apparatus, seaming material, and the industrial liquid waste pipe are resistant to chemical damage by the industrial wastes anticipated to be disposed in the industrial facility. For the selected flexible membrane liner material, identify those constituents for which the material does not exhibit chemical compatibility as indicated by increased swell, decreased elongation, or increased permeance and permeability.

(5) The following information regarding establishment of the permanent survey marks:

(a) An identification and description of the known control points used to establish the horizontal and vertical coordinates of the industrial facility permanent survey marks.

(b) The horizontal and vertical coordinates of the known control points and industrial facility permanent survey marks.

(c) A summary of surveying activities performed in determining the coordinates of the industrial facility permanent survey marks.

(d) A copy of the 7.5-minute USGS topographic map used in establishing the survey marks with the known control points and the location of the industrial facility permanent survey marks clearly identified.

(e) A detailed drawing illustrating the design of the industrial facility permanent survey marks, as constructed.

(6) The results of the investigation and analysis required by paragraphs (A) to (D) of rule 3745-525-502 of the Administrative Code.

(7) Documentation demonstrating that any oil or gas wells that have been identified within the limits of industrial waste placement have been properly plugged and abandoned in accordance with Chapter 1509. of the Revised Code prior to any construction in the area of the well.