

7045.0461 CONSTRUCTION QUALITY ASSURANCE PROGRAM.

Subpart 1. **Construction quality assurance program.** A construction quality assurance program is required for all surface impoundment, waste pile, and landfill units that are required to comply with parts 7045.0532, subpart 3, items C and H; 7045.0534, subpart 3, items C and D; and 7045.0538, subpart 3, items C and K. The program must ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a construction quality assurance officer who is a registered professional engineer.

The construction quality assurance program must address the following physical components, where applicable:

- A. foundations;
- B. dikes;
- C. low-permeability soil liners;
- D. geomembranes (flexible membrane liners);
- E. leachate collection and removal systems and leak detection systems; and
- F. final cover systems.

Subp. 2. **Written construction quality assurance plan.** The owner or operator of units subject to the construction quality assurance program under subpart 1 must develop and implement a written construction quality assurance plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The construction quality assurance plan must include:

A. Identification of applicable units, and a description of how they will be constructed.

B. Identification of key personnel in the development and implementation of the construction quality assurance plan, and construction quality assurance officer qualifications.

C. A description of inspection and sampling activities for all unit components identified in subpart 1, including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover sampling size and locations, frequency of testing, data evaluation procedures, acceptance and rejection criteria for construction materials, plans for implementing corrective measures, and data or other information to be recorded and retained in the operating record under part 7045.0478.

Subp. 3. Contents of program.

A. The construction quality assurance program must include observations, inspections, tests, and measurements sufficient to ensure:

(1) structural stability and integrity of all components of the unit identified in subpart 1;

(2) proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components (e.g. pipes) according to design specifications; and

(3) conformity of all materials used with design and other material specifications under parts 7045.0532, 7045.0534, and 7045.0538.

B. The construction quality assurance program shall include test fills for compacted soil liners, using the same compaction methods as in the full scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of parts 7045.0532, subpart 3, item C, subitem (1), unit (a), subunit ii; 7045.0534, subpart 3, item C, subitem (1), unit (a), subunit ii; and 7045.0538, subpart 3, item C, subitem (1), unit (a), subunit ii, in the field. Compliance with the hydraulic conductivity requirements must be verified by using in-situ testing on the constructed test fill. The commissioner may accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of parts 7045.0532, subpart 3, item C, subitem (1), unit (a), subunit ii; 7045.0534, subpart 3, item C, subitem (1), unit (a), subunit ii; and 7045.0538, subpart 3, item C, subitem (1), unit (a), subunit ii, in the field.

Subp. 4. Certification. Waste shall not be received in a unit subject to part 7045.0461 until the owner or operator has submitted to the commissioner by certified mail or hand delivery a certification signed by the construction quality assurance officer that the approved construction quality assurance plan has been successfully carried out and that the unit meets the requirements of parts 7045.0532, subpart 3, items C and H; 7045.0534, subpart 3, items C and D; and 7045.0538, subpart 3, items C and K; and the procedure in part 7001.0150, subpart 3, item M, has been completed. Documentation supporting the construction quality assurance officer's certification must be furnished to the commissioner upon request.

Statutory Authority: *MS s 116.07; 116.37*

History: *18 SR 1886*

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