

Kansas Department of Health and Environment  
Bureau of Waste Management Policy 00-04  
related to

**Requirement for Landfill Construction Quality Assurance**  
amended June 19, 2009

**Purpose**

This policy is intended to clarify the requirements for implementing a Construction Quality Assurance (CQA) plan for construction activities at MSW landfills and other types of solid waste landfills.

**Background**

In 1993 the State of Kansas adopted new landfill design and operating regulations modeled after the requirements established pursuant to Subtitle D of the federal Resource Conservation and Recovery Act (RCRA). The intent of these regulations is to ensure that municipal solid waste (MSW) is disposed of in a manner protective of the water, soil and air of the state. Specific design requirements for MSW landfills are contained within K.A.R. 28-29-102, Location Restrictions; K.A.R. 28-29-103(e), Liner performance standards; K.A.R. 28-29-104, Design standards; K.A.R. 28-29-114, Corrective action; and K.A.R. 28-29-121, Closure requirements.

Protection of the environment can only be achieved through high quality construction of the required landfill components and related systems as outlined in the regulations. Accordingly, high quality construction is assured through proper construction quality control and construction quality assurance (CQA) techniques. CQA is a planned system of activities that provides the landfill owner and the Kansas Department of Health and Environment (KDHE) assurance that the facility was constructed as specified in the design documents. CQA includes inspections, verifications, audits, and evaluations of materials and workmanship necessary to determine and document the quality of the constructed facility.

To assure high quality in the constructed facility, CQA activities should be conducted by a CQA Engineer, who is a professional engineer licensed in Kansas. The CQA Engineer must use the services of certified testing laboratories and registered land surveyors licensed in Kansas, as necessary, to ensure that the landfill was constructed in accordance with the approved permit drawings and approved CQA plan.

**CQA Requirements**

A CQA plan must be submitted and approved by KDHE prior to any construction activities required under the following regulations: K.A.R. 28-29-102, -103(e), -104, -114, and -121. The CQA plan should include a detailed description of all CQA activities that will be used during construction to manage the installed quality of the facility. The CQA plan should be tailored to the specific facility to be constructed and be completely integrated into the project's plans and specifications. The responsibilities and qualifications of the CQA personnel must be included in the plan.

At the completion of construction, the CQA Engineer who was responsible for overseeing the construction must certify in a final CQA report that the facility has been constructed in accordance with the approved permit drawings and approved CQA plan. The final CQA report must be submitted to KDHE for review and approval. The report should contain all applicable documentation, e.g., daily observation reports, photo documentation, sampling locations, test results, drawings of record, and other relevant data.

For Subtitle D landfills only, the CQA Engineer must be employed by an organization that operates independently of the landfill contract operator, construction contractor, owner and permit holder. Conversely, the CQA Engineer for Small Arid Landfills and other solid waste landfills exempt from the Subtitle D regulations is not required to be independent from the owner, operator, or contractors.



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