# Kansas Administrative Regulations

## Department of Health and Environment

### Article 29.—Solid Waste Management—Part 7. Municipal Solid Waste Landfills.

**28-29-114. Corrective action.**

(a) Assessment of corrective measures.

(1) After consideration of the results from the release assessment conducted pursuant to K.A.R. 28-29-113(a)(3)(B), the owner or operator may be asked by the director to conduct an assessment of corrective measures that includes an analysis of:

(A) performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

(B) time required to begin and complete the remedy;

(C) costs of remedy implementation; and

(D) institutional requirements such as state or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy or remedies.

(2) The owner or operator shall continue to monitor in accordance with the assessment monitoring program as specified in K.A.R. 28-29-113(b).

(3) The owner or operator shall make a recommendation for one of the corrective measures assessed and include a rationale for the choice in the corrective measures assessment report.

(4) The owner or operator shall conduct a public hearing to discuss the range of corrective measures evaluated, the recommended corrective measures, and the rationale outlined in the assessment report.

(b) Remedy.

(1) After consideration of the results of the corrective-measures assessment and the public comments received, the owner or operator shall propose a remedy and a schedule for implementation to the department for approval. The remedy shall:

(A) be protective of human health and the environment;

(B) attain the groundwater protection standards;

(C) control the source or sources of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of constituents identified in appendix II of K.A.R. 28-29-113 into the environment that may pose a threat to human health or the environment; and

(D) comply with standards for management of wastes as specified in paragraph (c)(4) of this regulation.

(2) In approving a remedy, the following evaluation factors shall be considered by the director:

(A) the long-term and short-term effectiveness and protectiveness of the potential remedy or remedies, along with the degree of certainty that the remedy will prove successful;

(B) the effectiveness of the remedy in controlling the source to reduce further releases;

(C) the ease or difficulty of implementing a potential remedy or remedies;

(D) practicable capability of the owner or operator, including a consideration of the technical and economic capability; and

(E) the degree to which community concerns are addressed by a potential remedy or remedies.

(3) A remedy other than that proposed by the owner or operator may be specified by the director.

(4) It may be determined by the director that remediation of a release of a constituent identified in appendix II of K.A.R. 28-29-113 from a MSWLF unit is not necessary if the owner or operator demonstrates to the satisfaction of the director any one of the following:

(A) the groundwater is additionally contaminated by substances that have originated from a source other than a MSWLF unit and those substances are present in concentrations such that cleanup of the release from the MSWLF unit would provide no significant reduction in risk to public health and the environment;

(B) remediation of the release or releases is technically impracticable; or

(C) remediation results in unacceptable crossmedia impacts.

(5) A determination by the director that remediation is not necessary shall not affect the authority of the department to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

(6) The owner or operator may be required by the director to take any interim measures necessary to ensure the protection of human health and the environment. Interim measures shall, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy selected.

(c) Implementation of the corrective action program.

(1) Based on the schedule established under paragraph (b)(1) above, the owner or operator shall implement the corrective action remedy selected under subsection (b).

(2) An owner or operator or the director may determine, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements of paragraph (b)(1) is not being achieved through the remedy selected. In such cases, the owner or operator shall implement other methods or techniques that practicably achieve compliance with the requirements.

(3) If the owner or operator or director determines that compliance with requirements under paragraph (b)(1) cannot be practically achieved with any currently available methods, the owner or operator shall:

(A) obtain certification of a qualified groundwater scientist that compliance cannot be practically achieved with any currently available methods;

(B) implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment;

(C) implement alternate measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures; and

(D) submit a report to the director justifying the alternative measures prior to implementing the alternative measures.

(4) Each solid waste that is managed pursuant to a remedy or an interim measure shall be managed in accordance with Kansas waste management standards.

(5) Remedies selected pursuant to subsection (b) shall be considered complete when:

(A) the owner or operator complies with the groundwater protection standards established under K.A.R. 28-29-113(b)(13) at the point of compliance;

(B) compliance with the groundwater protection standards has been achieved by demonstrating that concentrations of constituents identified in appendix II of K.A.R. 28-29-113 have not exceeded the groundwater protection standard or standards for a period of three consecutive years using the statistical procedures and performance standards in K.A.R. 28-29-112. An alternative length of time during which the owner or operator shall demonstrate that concentrations of constituents identified in appendix II of K.A.R. 28-29-113 have not exceeded the groundwater protection standard or standards may be specified by the director, taking into consideration the:

(i) extent and concentration of the release or releases;

(ii) behavior characteristics of the contaminants in the groundwater;

(iii) accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and

(iv) characteristics of the groundwater; and

(C) all actions required to complete the remedy have been satisfied.

(6) Upon completion of the remedy, the owner or operator shall submit to the director a copy of a certification that the remedy has been completed in compliance with the requirements of paragraph (b)(1) and initiate a detection monitoring plan. The certification shall be signed by the owner or operator and by a qualified groundwater scientist.

(7) Upon receipt of the certification, if the director determines that the corrective action remedy has been completed in accordance with the requirements of this section, the owner or operator shall be released from the requirements for financial assurance for corrective action under K.A.R. 28-29-122. Where appropriate and necessary, a new schedule for continued detection monitoring shall be established by the director.

(Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

***** Authenticated Kansas Administrative Regulation *****